Appendix A:
Air Quality, Greenhouse Gas Emissions, and Energy Analysis

THIS PAGE INTENTIONALLY LEFT BLANK

Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report
Ramona Expressway and Brennan Avenue Warehouse Project
City of Perris, Riverside County, California

Project Applicant:
Seefried Industrial Properties, Inc.
2321 Rosecrans Avenue, Suite 2220
El Segundo, CA 90245

Contact: Dan Bick, Senior Vice President, West Region
310.536.7900

Lead Agency:
City of Perris
101 North D Street
Perris, CA 92570
951.943.6100

Contact: Alfredo Garcia, Associate Planner

Contact: Philip Ault, Director of Noise and Air Quality
Angela Wolfe, Project Manager

Contributing Authors:
Kimber Johnson, Air Quality Scientist
Spencer Pignotti, Air Quality Associate
Ji Luo, Air Quality Analyst

Report Date: June 24, 2022
Revised October 12, 2022

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

List of Tables

List of Exhibits

List of Figures

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
$\mu g/m^3$	micrograms per cubic meter
AB	Assembly Bill
ADA	Americans with Disabilities Act
AERMOD	American Meteorological Society/EPA Regulatory Model
APN	Assessor's Parcel Number
AQI	Air Quality Index
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARB	California Air Resources Board
ASF	age sensitivity factors
ATCM	Airborne Toxic Control Measure
BAU	Business as Usual
BMP	Best Management Practice
C^2ES	Center for Climate and Energy Solutions
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CCAA	California Clean Air Act
CCCC	California Climate Change Center
CDC	Center for Disease Control and Prevention
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CHP	combined heating and power
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent

COA	Condition of Approval
CPF	cancer potency factor
CPUC	California Public Utility Commission
DBR	daily breathing rates
DPM	diesel particulate matter
EAP	Energy Action Plan
EIR	Environmental Impact Report
EMFAC	Emission Factors Model
EMWD	Eastern Municipal Water District
EPA	United States Environmental Protection Agency
EV	electric vehicle
FAR	floor area ration
FEIR	Final Environmental Impact Report
GAMAQI	Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GWh	gigawatt hours
HAP	Hazardous Air Pollutant
HC	Healthy Community
HFC	hydrofluorocarbon
HHDT	Heavy Heavy-Duty Truck
HI	Hazard Index
hp	horsepower
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning
HVLP	high volume low pressure
IPCC	United Nations Intergovernmental Panel on Climate Change
kBTU	kilo-British Thermal Unit
kWh	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LDA	Light-Duty Auto
LDT	Light-Duty Truck
LEED™	Leadership in Energy Efficient Design
LEV	Low Emission Vehicle
LST	localized significance threshold
MDAB	Mojave Desert Air Basin
MDV	Medium-Duty Vehicle
MIR	Maximally Impacted Sensitive Receptor
MM	Mitigation Measure

MMT	million metric ton
mpg	miles per gallon
MPO	Metropolitan Planning Organization
MSWD	Mission Springs Water District
MT	metric tons
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NF_3	nitrogen trifluoride
NFPA	National Fire Protection Association
NO_X	nitrogen oxides
OAL	Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration
PCE	Passenger Car Equivalent
PFC	perfluorocarbon
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
pb	lead
ppb	parts per billion
ppm	parts per million
PVCCSP	Perris Valley Commerce Center Specific Plan
REL	Reference Exposure Level
ROG	reactive organic gas
RPS	Renewables Portfolio Standard
RTA	Riverside Transit Agency
RTP/SCS	Regional Transportation Plan and Sustainable Communities Strategy
RTPA	Regional Transportation Planning Agency
SB	Senate Bill
SCAG	Southern California Association of Government
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SLCP	Short-Lived Climate Pollutant
SoCAB	South Coast Air Basin
SoCalGas	Southern California Gas Company
SO_X	sulfur oxides

SP	service population
SSAB	Salton Sea Air Basin
TAC	toxic air contaminant
TRU	Transport Refrigeration Unit
URBEMIS	Urban Emissions
USGS	United States Geological Survey
VMT	Vehicle Miles Traveled
VOC	volatile organic compound
ZEV	Zero-Emission Vehicle

SECTION 1: INTRODUCTION

1.1 - Purpose and Methods of Analysis

This Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report was prepared to evaluate whether the estimated criteria air pollutant, ozone precursor, toxic air contaminant (TAC), and/or greenhouse gas (GHG) emissions generated from construction and/or operation of the Ramona Expressway and Brennan Avenue Warehouse Project (proposed project) would cause significant impacts to air resources in the project area. The respective analyses were conducted within the context of the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] § 21000, *et seq*.). The analysis methodology follows the South Coast Air Quality Management District (SCAQMD) and City of Perris recommendations for the quantification of emissions and evaluation of potential impacts on air resources.

1.2 - Project Summary

1.2.1 - Site Location

The approximately 7.5-acre project site is located in the City of Perris, in Riverside County, California (Exhibit 1). The project site is located south of Ramona Expressway between Brennan Avenue and Webster Avenue (Exhibit 2). The site is located within the *Perris, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map. The project site is located within the Perris Valley Commerce Center Specific Plan (PVCCSP) area and is designated as Light Industrial (LI). According to the City of Perris Zoning Map, the site is zoned as Light Industrial (LI).

The project site encompasses five parcels and corresponds to Assessor's Parcel Numbers (APNs) 303-020-005, -022, -023, -024, and -025. The project site is surrounded by vacant land to the south and west and a vacant lot, commercial, and residential uses beyond Ramona Expressway to the north. Approximately 500 feet to the north, beyond the vacant lot, is the closest single-family home to the project site. Approximately 150 feet east of the project site, beyond Brennan Avenue, is a Lowe's warehouse distribution center, and directly south is a vacant lot and storage yard. The project site is located approximately 40 miles northwest of the Palomar Observatory.

1.2.2 - Project Description

The project site is currently used for storage of a variety of materials and currently contains five vacant permanent buildings: a wood-framed commercial building and a residential building are present on the southeast portion of the project site. In addition, the two connected metal structures are present on the central portion of the project site, and a shed-type structure is present at the southwest portion of the project site.[1] All five of these buildings would be demolished as part of the proposed project. Infrastructure associated with the storage of materials, including concrete foundation pads, equipment shelving, and shipping containers are present throughout the southern

[1] Hazard Management Consulting, Inc. Phase I Environmental Site Assessment. Ramona Expressway and Brennen Avenue.

portion of the site. The northern portion of the site includes a former storage area for pallets that has been cleared and now supports ruderal vegetation.

The project applicant, Seefried Industrial Properties, Inc., proposes to construct an approximately 165,371-square-foot warehouse center for consumer products. The warehouse center would consist of a 160,371-square-foot warehouse, 2,500-square-foot office located on the first floor, a 2,500-square-foot mezzanine, 20 dock doors, an outdoor employee break area/seating patio, and an outdoor gym park (Exhibit 3).

1.2.3 - Phasing and Construction

The following construction schedule was assumed for the purposes of this environmental analysis. The proposed project would be constructed in a single phase beginning fourth quarter 2022. Demolition of the existing buildings on project site would occur within the first month of construction, followed by site preparation and grading activities. The proposed project is expected to be operational in the second quarter of 2023.

1.2.4 - Operation

The warehouse tenant is unknown at this time. Sortable e-commerce warehouse and distribution centers are high-cube package handling facilities that support the “first-mile” of the tenant’s fulfillment logistics network. The proposed project is intended to be used primarily for the storage and/or consolidation of goods prior to their distribution to the customer or another supporting facility. The proposed building would store, package, and fulfill orders, utilizing automation and logistics to enable highly efficient processing of goods. The site would operate 24-hours a day, 365 days per year. Cold storage is not proposed as part of the project.

1.3 - Summary of Analysis Results

The following is a summary of the analysis results. Please refer to Section 5, Air Quality Impact Analysis; Section 6, Greenhouse Gas Impact Analysis; and Section 7, Energy Empact Analysis, which provide the comprehensive analysis in support of the findings and conclusion of significance.

Impact AIR-1 The proposed project could conflict with or obstruct implementation of the applicable air quality plan.

Less than significant impact.

Impact AIR-2 The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

Less than significant impact.

Impact AIR-3 The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Less than significant impact.

Impact AIR-4 The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Less than significant impact.

Impact GHG-1 The proposed project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.

Less than significant impact.

Impact GHG-2 The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHG.

Less than significant impact with mitigation incorporated.

Impact ENER-1 The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation.

Less than significant impact.

Impact ENER-2 The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Less than significant impact.

1.4 - Mitigation Measures Applied to the Proposed Project

Air Quality

The applicable air quality mitigation measures from the PVCCSP EIR are listed below. This Air Quality, Greenhouse Gas Emissions, and Energy Report was prepared to satisfy the requirements of PVCCSP EIR mitigation measures MM Air 1, MM Air 10, and MM Air 15; therefore, these mitigation measures are not listed below.

MM Air-2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off peak-hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air-3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air-4 Building and grading permits shall include a restriction that limits idling of construction equipment on-site to no more than 5 minutes.

MM Air-5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air-6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the ARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available ARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air-7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air-8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air-9 To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

MM Air-11 Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of 5 minutes.

MM Air-12 Where Transport Refrigeration Units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.

MM Air-13 In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other State programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, ARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year will be used at a facility with three or more dock-high doors, the developer/ successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD's website (http://www.aqmd.gov). Tenants will be required to use those funds, if awarded.

MM Air-14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air-19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air-20 Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

No project-specific air quality mitigation measures were required to reduce potential impacts to less than significant; therefore, no additional project-specific air quality mitigation measures would apply to the proposed project.

Greenhouse Gas Emissions

The PVCCSP EIR did not identify GHG mitigation measures that would be applicable to the proposed project. Project-specific GHG mitigation measures are listed below.

MM GHG-1 Incorporation of Electric Vehicle Charging Stations

The proposed project shall incorporate a minimum of 8 percent of all vehicle parking spaces (including those for trucks) with electric vehicle (EV) charging stations, consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Voluntary Measure (Section A5.106.5.3.1). EV charging spaces must provide EV charging infrastructure to support future installation of EV supply equipment and shall meet the design space requirements of California Green Building Standards Code Section 5.106.5.3.2.

MM GHG-2 Support of Electric Powered Interior Vehicles

All buildings shall be designed to provide infrastructure to support use of electric-powered forklifts and/or other interior vehicles.

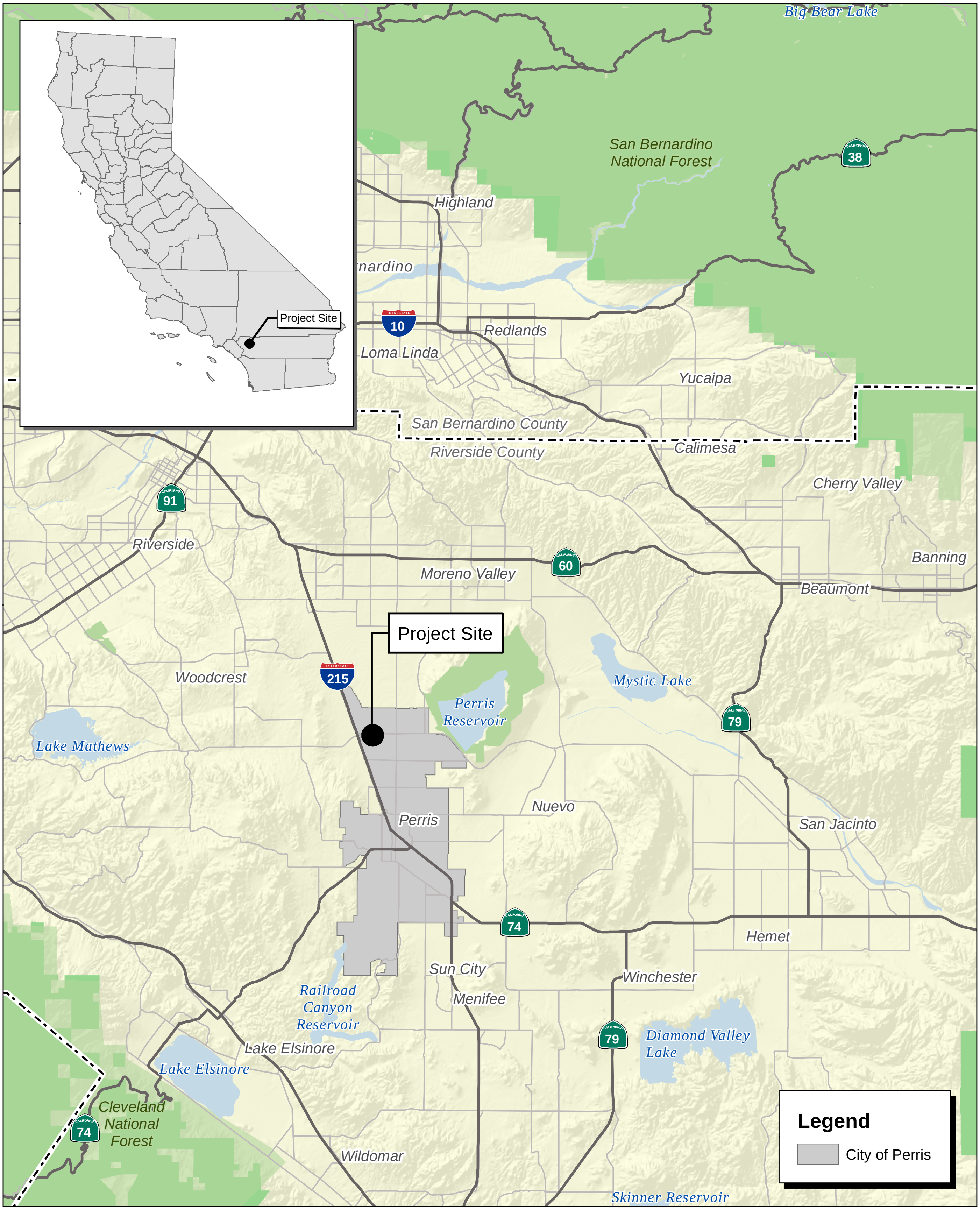
MM GHG-3 Provision of Electric Infrastructure

All buildings shall be designed to provide electric infrastructure to support use of exterior yard trucks and on-site vehicles. The operation of yard trucks that are used to move trailers and on-site vehicles within the project site shall be powered by electricity unless the project applicant can reasonably demonstrate that specific equipment is not available for a particular task.

Energy

No mitigation measures are necessary.

THIS PAGE INTENTIONALLY LEFT BLANK



Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

FIRSTCARBON SOLUTIONS™

5 2.5 0 5
Miles

Exhibit 1
Regional Location Map

41150038 • 06/2022 | 1_regional.mxd

SEEFRIED INDUSTRIAL PROPERTIES, INC.
RAMONA EXPRESSWAY AND BRENNAN AVENUE WAREHOUSE PROJECT
AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY ANALYSIS REPORT

THIS PAGE INTENTIONALLY LEFT BLANK

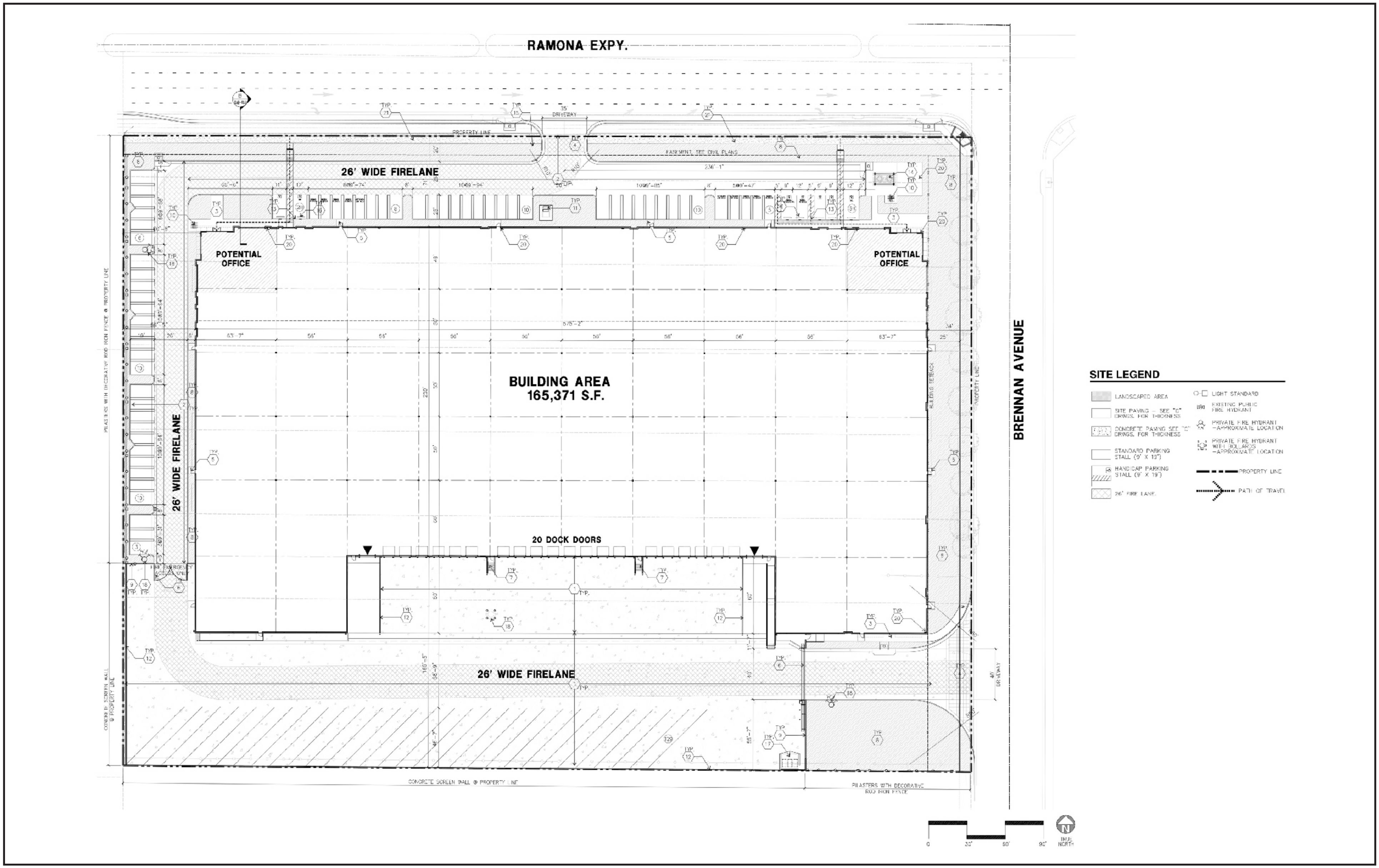
Source: Bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

THIS PAGE INTENTIONALLY LEFT BLANK



Source: HPA Architecture, February 2022.

FIRSTCARBON SOLUTIONS™

Exhibit 3
Site Plan

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 2: AIR QUALITY SETTING

2.1 - Environmental Setting

The proposed project is located in the City of Perris, California, situated in the South Coast Air Basin (SoCAB) which is a part of the South Coast Air Quality Management District (SCAQMD). Regional air quality and local air quality are impacted by topography, dominant airflows, atmospheric inversions, location, and season. The following section describes these conditions as they pertain to the SoCAB.

2.1.1 - South Coast Air Basin

The proposed project is within the SoCAB. To the west of the basin is the Pacific Ocean. To the north and east of the basin are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the basin is the San Diego County line. The basin consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The air quality in the basin is impacted by dominant airflows, topography, atmospheric inversions, location, season, and time of day.

Regional climate factors such as temperature, wind, humidity, precipitation, and amount of sunshine have a substantial influence on air quality in the SoCAB. The annual average temperatures throughout the SoCAB vary from the low to middle 60s (degrees Fahrenheit [°F]). Because of a decreased marine influence, the eastern portion of the SoCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SoCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SoCAB have recorded maximum temperatures above 100°F.

Although the climate of the SoCAB can be characterized as semi-arid, the air near the land surface is relatively humid on most days because of the presence of a marine layer from the Pacific Ocean. This shallow layer of sea air is an important modifier of SoCAB climate. Humidity restricts visibility in the SoCAB and the conversion of sulfur dioxide to sulfates is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SoCAB is 71 percent along the coast and 59 percent inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature of the coastal areas. These effects decrease with distance from the coast.

More than 90 percent of the SoCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SoCAB, with frequency being higher near the coast.

The topography and climate of Southern California combine to make the SoCAB an area of high air pollution potential. A warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer, which traps the pollutants near the ground. Light winds can further limit ventilation. Additionally, abundant sunlight triggers the photochemical reactions which produce ozone and the majority of the particulate matter.[2]

2.2 - Regulatory Setting

Air pollutants are regulated to protect human health and for secondary effects such as visibility and building soiling. The Clean Air Act of 1970 tasks the United States Environmental Protection Agency (EPA) with setting air quality standards. The State of California also sets air quality standards that are, in some cases, more stringent than federal standards and address additional pollutants. The following section describes these federal and State standards and the health effects of the regulated pollutants.

2.2.1 - Clean Air Act

Congress established much of the basic structure of the Clean Air Act in 1970 and made major revisions in 1977 and 1990. Six common air pollutants (also known as criteria pollutants and listed below) are addressed in the Clean Air Act. The EPA calls these pollutants criteria air pollutants because it regulates them by developing human health-based and environmentally based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health are called primary standards. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to protect the public health. Another set of limits intended to prevent environmental and property damage are called secondary standards.[3] The federal standards are called National Ambient Air Quality Standards (NAAQS). The air quality standards provide benchmarks for determining whether air quality is healthy at specific locations and whether development activities will cause or contribute to a violation of the standards. The criteria pollutants are:

- Ozone (O_3)
- Nitrogen dioxide (NO_2)
- Lead (Pb)
- Particulate matter (PM_{10} and $PM_{2.5}$)
- Carbon monoxide (CO)
- Sulfur dioxide (SO_2)

The federal standards were set to protect public health, including that of sensitive individuals; thus, the EPA is tasked with updating the standards as more medical research is available regarding the health effects of the criteria pollutants.

2.2.2 - California Clean Air Act

The California Legislature enacted the California Clean Air Act (CCAA) in 1988 to address air quality issues of concern not adequately addressed by the Federal Clean Air Act at the time. California's air quality problems were and continue to be some of the most severe in the nation and required additional actions beyond the federal mandates. The California Air Resources Board (ARB) administers California Ambient Air Quality Standards (CAAQS) for the 10 air pollutants designated in the CCAA. The

[2] South Coast Air Quality Management District (SCAQMD). 2017. Final 2016 Air Quality Management Plan. Website: http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp. Accessed June 24, 2022.

[3] United States Environmental Protection Agency (EPA). 2016. NAAQS Table. December 20. Website: https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed June 24, 2022.

10 State air pollutants are the six federal standards listed above as well as visibility-reducing particulates, hydrogen sulfide, sulfates, and vinyl chloride.

2.2.3 - Toxic Air Contaminants

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate Hazardous Air Pollutants (HAPs). Section 112 of the Clean Air Act lists 187 HAPs to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. The ARB and local air districts regulate TACs and HAPs in California.

The California Almanac of Emissions and Air Quality–2013 edition presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data.[4] The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[5] In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM.

2.2.4 - Air Pollutant Description and Health Effects

The federal and State ambient air quality standards, relevant effects, properties, and sources of the air pollutants are summarized in Table 1.

---

[4] California Air Resources Board (ARB). 2013. The California Almanac of Emissions and Air Quality—2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/almanac-emissions-air-quality/about. Accessed June 24, 2022.

[5] California Air Resources Board (ARB). 1998. The Report on Diesel Exhaust. Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/dieseltac/de-fnds.htm. Accessed June 24, 2022.

Table 1: Description of Air Pollutants

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone	1 Hour	0.09 ppm	—	Irritate respiratory system; reduce lung function; breathing pattern changes; reduction of breathing capacity; inflame and damage cells that line the lungs; make lungs more susceptible to infection; aggravate asthma; aggravate other chronic lung diseases; cause permanent lung damage; some immunological changes; increased mortality risk; vegetation and property damage.	Ozone is a photochemical pollutant as it is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds (VOCs), nitrogen oxides (NO_X), and sunlight. Ozone is a regional pollutant that is generated over a large area and is transported and spread by the wind. Hot, sunny, and calm weather conditions are favorable to ozone formation.	Ozone is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NO_X) are mobile sources (on-road and off-road vehicle exhaust).
	8 Hours	0.070 ppm	0.070 ppm[f]			
CO	1 Hour	20 ppm	35 ppm	Ranges depend on exposure: slight headaches; nausea; aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; decreased exercise tolerance in persons with peripheral vascular disease and lung disease; impairment of central nervous system functions; possible increased risk to fetuses; death.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential woodburning, and natural sources.
	8 Hours	9.0 ppm	9 ppm			
NO_2[b]	1 Hour	0.18 ppm	0.100 ppm	Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; contribution to atmospheric discoloration; increased visits to hospital for respiratory illnesses.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce nitrogen oxides—NO_X (NO, NO_2, NO_3, N_2O, N_2O_3, N_2O_4, and N_2O_5). NO_X is a precursor to ozone, PM_{10}, and $PM_{2.5}$ formation. NO_X can react with compounds to form nitric acid and related small particles and result in PM-related health effects.	NO_X is produced in motor vehicle internal combustion engines and fossil fuel-fired electric utility and industrial boilers. NO_2 forms quickly from NO_X emissions. NO_2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
	Annual	0.030 ppm	0.053 ppm			

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
SO_2[c]	1 Hour	0.25 ppm	0.075 ppm	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.	SO_2 is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor like rotten eggs. Sulfur oxides (SO_X) include SO_2 and sulfur trioxide. Sulfuric acid is formed from SO_2, which can lead to acid deposition and can harm natural resources and materials. Although SO_2 concentrations have been reduced to levels well below State and federal standards, further reductions are desirable because SO_2 is a precursor to sulfate and PM_{10}.	Human caused sources include fossil fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source of SO_2. The gas can also be produced in the air by dimethyl sulfide and hydrogen sulfide. SO_2 is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The SO_2 levels in the State are well below the maximum standards.
	3 Hours	—	0.5 ppm			
	24 Hours	0.04 ppm	0.14 (for certain areas)			
	Annual	—	0.030 ppm (for certain areas)			
Particulate matter (PM_{10})	24 hours	50 µg/m^3	150 µg/m^3	• Short-term exposure (hours/days): irritation of the eyes, nose, throat; coughing; phlegm; chest tightness; shortness of breath; aggravate existing lung disease, causing asthma attacks and acute bronchitis; those with heart disease can suffer heart attacks and arrhythmias. • Long-term exposure: reduced lung function; chronic bronchitis; changes in lung morphology; death.	Suspended particulate matter is a mixture of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} refers to particulate matter that is between 2.5 and 10 microns in diameter, (1 micron is one-millionth of a meter). $PM_{2.5}$ refers to particulate matter that is 2.5 microns or less in diameter, about one-thirtieth the size of the average human hair.	Stationary sources include fuel or wood combustion for electrical utilities, residential space heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal, and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust. Secondary particles form from reactions in the atmosphere.
	Mean	20 µg/m^3	—			
Particulate matter ($PM_{2.5}$)	24 Hours	—	35 µg/m^3			
	Annual	12 µg/m^3	12 µg/m^3			
Visibility-reducing particles	8 Hours	See note below[d]				

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Sulfates	24 Hours	25 µg/m^3	—	Decrease in ventilatory function; aggravation of asthmatic symptoms; aggravation of cardiopulmonary disease; vegetation damage; degradation of visibility; and property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO_4^{2-}. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of SO_2. In California, the main source of sulfur compounds is combustion of gasoline and diesel fuel.
Lead[e]	30 days	1.5 µg/m^3	—	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction, behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs.	Lead is a solid heavy metal that can exist in air pollution as an aerosol particle component. Leaded gasoline was used in motor vehicles until around 1970. Lead concentrations have not exceeded State or federal standards at any monitoring station since 1982.	Lead ore crushing, lead ore smelting, and battery manufacturing are currently the largest sources of lead in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering.
	Quarter	—	1.5 µg/m^3			
	Rolling 3-month average	—	0.15 µg/m^3			
Vinyl chloride[e]	24 Hours	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, the ARB identified vinyl chloride as a TAC and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide	1 Hour	0.03 ppm	—	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Hydrogen sulfide (H_2S) is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application-sites are the primary sources of hydrogen sulfide. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources
VOC		There are no State or federal standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified TACs.	Reactive organic gases (ROGs), or VOCs, are defined as any compound of carbon—excluding CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROG and VOCs, the two terms are often used interchangeably.	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM_{10} and lower visibility.
Diesel particulate matter (DPM)		There are no ambient air quality standards for DPM.		Some short-term (acute) effects of DPM exposure include eye, nose, throat, and lung irritation, coughs, headaches, lightheadedness, and nausea. Studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Human studies on the carcinogenicity of DPM demonstrate an increased risk of lung cancer, although the increased risk cannot be clearly attributed to diesel exhaust exposure.	DPM is a source of $PM_{2.5}$—diesel particles are typically 2.5 microns and smaller. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel. Organic compounds account for 80 percent of the total particulate matter mass, which consists of compounds such as hydrocarbons and their derivatives, and polycyclic aromatic hydrocarbons and their derivatives. Fifteen polycyclic aromatic hydrocarbons are confirmed carcinogens, several which are found in diesel exhaust.	Diesel exhaust is a major source of ambient particulate matter pollution in urban environments. Typically, the main source of DPM is from combustion of diesel fuel in diesel-powered engines. Such engines are in on-road vehicles such as diesel trucks, off-road construction vehicles, diesel electrical generators, and various pieces of stationary construction equipment.

Air Pollutant	Averaging Time	California Standard	Federal Standard	Most Relevant Effects from Pollutant Exposure	Properties	Sources

Notes:
ppm = parts per million (concentration) µg/m^3 = micrograms per cubic meter Annual = Annual Arithmetic Mean 30-day = 30-day average Quarter = Calendar quarter

[a] Federal standard refers to the primary NAAQS, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3-Hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[b] To attain the 1-hour NO_2 national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb) (0.100 ppm).

[c] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[d] Visibility-reducing particles: In 1989, the ARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the Statewide and Lake Tahoe Air Basin standards, respectively.

[e] The ARB has identified lead and vinyl chloride as TACs with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[f] The EPA Administrator approved a revised 8-hour ozone standard of 0.07 ppb on October 1, 2015. The new standard went into effect 60 days after publication of the Final Rule in the Federal Register. The Final Rule was published in the Federal Register on October 26, 2015, and became effective on December 28, 2015.

[g] The official level of the 1-hour NO_2 standard is 100 ppb, equal to 0.100 ppm, which is shown here for the purpose of clearer comparison to the other standards.

Source of effects, properties, and sources: United States Environmental Protection Agency (EPA). 2003. Particle Pollution and your Health. EPA-452/F-03-001. September. Website: https://www.airnow.gov/sites/default/files/2018-03/pm-color.pdf. Accessed June 24, 2022.

United States Environmental Protection Agency (EPA). 2009. Ozone and your Health EPA-456/F-09-001. Website: https://www.airnow.gov/sites/default/files/2020-02/ozone-c.pdf. Accessed June 24, 2022.

United States Environmental Protection Agency (EPA). 2009. Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide. July. Website: https://www.gpo.gov/fdsys/pkg/FR-2009-07-15/pdf/E9-15944.pdf. Accessed June 24, 2022.

United States Environmental Protection Agency (EPA). 2010. Technology Transfer Network, Air Toxics Website. Page updated December 21, 2018. Health Effects Notebook for Hazardous Air Pollutants. December. Website: https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants. Accessed June 24, 2022.

National Toxicology Program. 2011. Report on Carcinogens, Twelfth Edition; U.S. Department of Health and Human Services, Public Health Service. June 10. Benzene. Website: http://ntp.niehs.nih.gov/ntp/roc/twelfth/profiles/Benzene.pdf. Accessed June 24, 2022.

National Toxicology Program. 2016. Report on Carcinogens, Fourteenth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles. Website: https://ntp.niehs.nih.gov/ntp/roc/content/profiles/dieselexhaustparticulates.pdf. Accessed June 24, 2022.

California Environmental Protection Agency (Cal/EPA). 2002. Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. Website: https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf. Accessed June 24, 2022.

California Air Resources Board (ARB). 2009. Vinyl Chloride. Website: https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed June 24, 2022.

United States Environmental Protection Agency (EPA). 2017. Indoor Air Quality. Sources of Indoor Air Pollution—Organic Gases (Volatile Organic Compounds—VOCs). November. Website: www.epa.gov/iaq/voc.html. Accessed June 24, 2022.

National Toxicology Program. 2011. Report on Carcinogens, Twelfth Edition; U.S. Department of Health and Human Services, Public Health Service. Diesel Exhaust Particles. Website: https://oehha.ca.gov/media/downloads/proposition-65/crnr/comments/12throc-complete.pdf. Accessed June 24, 2022.

Source of standards: South Coast Air Quality Management District (SCAQMD). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) Attainment Status for South Coast Air Basin. February. Website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=2. Accessed June 24, 2022.

Several pollutants listed in Table 1 are not addressed in this analysis. An analysis of lead is not included in this report because the proposed project would not generate a new source of lead emissions. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed under the analysis for PM_{10} and $PM_{2.5}$. No components of the proposed project would result in vinyl chloride or hydrogen sulfide emissions in any substantial quantity; therefore, these compounds are not further evaluated in this report.

Toxic Air Contaminants Health Effects

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. There are no ambient air quality standards for TAC emissions. TACs are regulated in terms of health risks to individuals and populations exposed to the pollutants. The 1990 Clean Air Act Amendments significantly expanded the EPA's authority to regulate HAPs. Section 112 of the Clean Air Act lists 187 HAPs to be regulated by source category. Authority to regulate these pollutants was delegated to individual states. The ARB and local air districts regulate TACs and HAPs in California.

The 2013 Edition of the California Almanac of Emissions and Air Quality presents the relevant concentration and cancer risk data for the 10 TACs that pose the most substantial health risk in California based on available data.[6] The 10 TACs are acetaldehyde, benzene, 1.3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and DPM.

Several studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk.[7] In addition to increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

Asbestos

Asbestos is the name given to several naturally occurring fibrous silicate minerals that have been mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95 percent of all asbestos contained in buildings in the United States. Exposure to asbestos is a health threat; exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the

---

6 California Air Resources Board (ARB). 2013. The California Almanac of Emissions and Air Quality—2013 Edition. Website: https://ww2.arb.ca.gov/our-work/programs/almanac-emissions-air-quality/about. Accessed June 24, 2022.

7 California Air Resources Board (ARB). 1998. The Report on Diesel Exhaust Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/dieseltac/de-fnds.htm. Accessed June 24, 2022.

lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed prior to the 1977 ban on asbestos for use in buildings. Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present. No naturally occurring asbestos is located near the project site.[8]

2.3 - Existing Air Quality Conditions

The local air quality can be evaluated by reviewing relevant air pollution concentrations near the project area. Table 2 summarizes published monitoring data from 2018 through 2020. The table displays data from the three monitor stations within the proximity of the project site. The data shows that during the past few years, the project area has exceeded the standards for ozone (State and federal), PM_{10} (State), and $PM_{2.5}$ (State and federal). The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Riverside County or the SoCAB was available for CO, NO_2, or SO_2. Generally, no monitoring is conducted for pollutants that are no longer likely to exceed ambient air quality standards.

Table 2: Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone[1]	1 Hour	Max 1 Hour (ppm)	**0.117**	**0.118**	**0.125**
		Days > State Standard (0.09 ppm)	**31**	**28**	**34**
	8 Hours	Max 8 Hours (ppm)	**0.103**	**0.095**	**0.106**
		Days > State Standard (0.07 ppm)	**67**	**64**	**74**
		Days > National Standard (0.075 ppm)	**47**	**38**	**48**
Carbon monoxide (CO)	8 Hours	Max 8 Hours (ppm)	ND	ND	ND
		Days > State Standard (9.0 ppm)	ND	ND	ND
		Days > National Standard (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO_2)[2]	Annual	Annual Average (ppm)	0.014	0.014	0.014
	1 Hour	Max 1 Hour (ppm)	0.055	0.056	0.066
		Days > State Standard (0.18 ppm)	0	0	0
Sulfur dioxide (SO_2)	Annual	Annual Average (ppm)	ND	ND	ND
	24 Hours	Max 24 Hours (ppm)	ND	ND	ND
		Days > State Standard (0.04 ppm)	ND	ND	ND
Inhalable coarse	Annual	State Annual Average ($\mu g/m^3$)	**28.9**	**24.4**	ND
	24 Hours	Max 24 Hours ($\mu g/m^3$)	**64.4**	**92.1**	**87.6**
		Days > State Standard (50 $\mu g/m^3$)	**2**	**4**	**6**

[8] California Department of Conservation, Division of Mine Reclamation. 2000. A General Location Guide for Ultramafic Rocks in California—Areas More likely to Contain Naturally Occurring Asbestos. Website: https://ww2.arb.ca.gov/sites/default/files/classic/toxics/asbestos/ofr_2000-019.pdf. Accessed June 24, 2022.

Air Pollutant	Averaging Time	Item	2018	2019	2020
particles (PM_{10})[1]		Days > National Standard (150 µg/m^3)	0	0	0
Fine particulate matter ($PM_{2.5}$)[3]	Annual	State Annual Average (µg/m^3)	**12.6**	11.2	**14.1**
	24 Hours	Max 24 Hours (µg/m^3)	**68.3**	**57.6**	**61.9**
		Days > National Standard (35 µg/m^3)	**3**	**5**	**12**

Notes:
> = exceed
µg/m^3 = micrograms per cubic meter
Bold = exceedance
max = maximum
National Standard = National Ambient Air Quality Standard (NAAQS)
ND = no data
ppm = parts per million
State Standard = California Ambient Air Quality Standard (CAAQS)
1 Ozone and PM_{10} data were retrieved from Perris Station.
2 NO_2 data was retrieved at Lake Elsinore-West Flint Street.
3 $PM_{2.5}$ data was not available for Perris Station and was mostly missing for Lake Elsinore-West Flint Street Station. Therefore, the $PM_{2.5}$ data was retrieved from Riverside-Rubidoux Station.
Source: California Air Resources Board (ARB). 2022. Top Four Summary. Website: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed June 10, 2022.

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest comparison is to the State and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount by which the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 3 provides a description of the health impacts of ozone at different concentrations.

Table 3: Air Quality Index and Health Effects from Ozone

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI (51 -100)—Moderate	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
Concentration 55-70 ppb	**Health Effects Statements**: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI (101-150)—Unhealthy for Sensitive Groups	**Sensitive Groups**: Children and people with asthma are the groups most at risk.

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
Concentration 71-85 ppb	**Health Effects Statements**: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI (151-200)—Unhealthy	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
Concentration 86-105 ppb	**Health Effects Statements**: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI (201-300)—Very Unhealthy	**Sensitive Groups**: Children and people with asthma are the groups most at risk.
Concentration 106-200 ppb	**Health Effects Statements**: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.

Notes:
AQI = Air Quality Index
ppb = parts per billion
Source: Air Now. 2022. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed June 24, 2022.

Based on the AQI scale for the 8-hour ozone standard, the City of Perris experienced 3 days in the last 3 years that would be categorized as unhealthful (AQI 200) and as many as 93 days that were unhealthful for sensitive groups (AQI 150) or moderate (AQI 100) as measured at the Perris Monitoring Station. The highest 1-hour maximum reading was 125 parts per billion (ppb) in 2020, which is "Very Unhealthy."

The other nonattainment pollutant of concern is $PM_{2.5}$. An AQI of 100 or lower is considered moderate and would be triggered by a 24-hour average concentration of 35.4 $\mu g/m^3$, which is considered an exceedance of the federal $PM_{2.5}$ standard. The project area did exceed the standard for 3 days in 2018, 5 days in 2019, and 12 days in 2020. The highest 24-hour average concentration recorded in the project area was 68.3 $\mu g/m^3$ in 2018. People with respiratory or heart disease, the elderly, and children are the groups most at risk. Unusually sensitive people should consider reducing prolonged or heavy exertion. The relationship of the AQI to health effects is shown Table 4.

Table 4: Air Quality Index and Health Effects of Particulate Pollution

Air Quality Index/ 24-hour $PM_{2.5}$ Concentration	Health Effects Description
AQI 51–100—Moderate	**Sensitive Groups**: Some people who may be unusually sensitive to particulates.
Concentration 12.1-35.4 µg/m^3	**Health Effects Statements**: Unusually sensitive people should consider reducing prolonged or heavy exertion.
	Cautionary Statements: Unusually sensitive people: Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.
AQI 101–150—Unhealthy for Sensitive Groups	**Sensitive Groups**: Sensitive groups include people with heart or lung disease, older adults, children, and teenagers.
Concentration 35.5-55.4 µg/m^2	**Health Effects Statements**: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.
	Cautionary Statements: Sensitive groups: Reduce prolonged or heavy exertion. It is OK to be active outside but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath. People with asthma should follow their asthma action plans and keep quick relief medicine handy. If you have heart disease: Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
AQI 151–200—Unhealthy	**Sensitive Groups**: Everyone
Concentration 55.5-150.4 µg/m^3	**Health Effects Statements**: Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling. Everyone else: Reduce prolonged or heavy exertion. Take more breaks during outdoor activities.
AQI 201-300—Very Unhealthy	**Sensitive Groups**: Everyone
Concentration 150.5-250.4 µg/m^3	**Health Effects Statements**: Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
	Cautionary Statements: Sensitive groups: Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better. Everyone else: Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.

Notes:
AQI = Air Quality Index
µg/m^3 = micrograms per cubic meter
Source: Air Now. 2022. AQI Calculator: AQI to Concentration. Website: https://www.airnow.gov/aqi/aqi-calculator/. Accessed June 24, 2021.

2.3.1 - Attainment Status

The EPA and the ARB designate air basins where ambient air quality standards are exceeded as "nonattainment" areas. If standards are met, the area is designated as an "attainment" area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered "unclassified." National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Each standard has a different definition, or "form," of what constitutes attainment based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the 3-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

The current attainment designations for the SoCAB are shown in Table 5. With respect to the CAAQS, the Riverside County portion of the SoCAB is nonattainment for ozone, PM_{10}, and $PM_{2.5}$ and attainment or unclassified for all other pollutants. With respect to the NAAQS, the Riverside County portion of the SoCAB is nonattainment for ozone and $PM_{2.5}$ and attainment or unclassified for all other pollutants.

Table 5: South Coast Air Basin Attainment Status

Pollutant	State Status[1]	National Status[2]
Ozone (1-hour)[a]	Nonattainment	Nonattainment (Extreme)
Ozone (8-hours)	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide (annual)	Attainment	Attainment (Maintenance)
Nitrogen dioxide (1-hour)	Attainment	Unclassifiable/Attainment
Sulfur dioxide	Attainment	Unclassified/Attainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment (Serious)
Lead (Riverside County)	—	Attainment
Hydrogen Sulfide (H_2S)	Attainment	—
Sulfates	Attainment	—
Vinyl Chloride	Attainment	—

Notes:
[a] On June 15, 2005, the 1-Hour Ozone NAAQS was revoked for all areas except the 8-Hour Ozone Nonattainment Early Action Compact areas. However, the SoCAB has not attained this standard based on 2008-2010 data and is still subject to anti-backsliding requirements.
Source: South Coast Air Quality Management District (SCAQMD). Clean Air Plans. http://www.aqmd.gov/home/air-quality/clean-air-plans. Accessed June 24, 2022.

2.4 - Air Quality Plans and Regulations

Air pollutants are regulated at the national, State, and air basin or county level; each agency has a different level of regulatory responsibility. The EPA regulates at the national level, and the ARB regulates at the State level. The SoCAB is located within the SCAQMD. The SCAQMD includes Riverside County in its planning area and also includes portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County. Within Riverside County, the SCAQMD also has jurisdiction over the Salton Sea Air Basin (SSAB) and a portion of the Mojave Desert Air Basin (MDAB).[9]

The EPA is responsible for national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans (SIPs), provides research and guidance for air pollution programs, and sets NAAQS, also known as the federal standards, described earlier.

An SIP is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal air standards. The SIP for the State of California is administered by the ARB, which has overall responsibility for Statewide air quality maintenance and air pollution prevention. California's SIP incorporates individual federal attainment plans for regional air districts—an air district prepares their federal attainment plan, which is sent to the ARB to be approved and incorporated into the California SIP. Federal attainment plans include the technical foundation for understanding air quality (e.g., emission inventories and air quality monitoring), control measures and strategies, and enforcement mechanisms.

Areas designated as nonattainment must develop air quality plans and regulations to achieve standards by specified dates, depending on the severity of the exceedances. For much of the country, implementation of federal motor vehicle standards and compliance with federal permitting requirements for industrial sources are adequate to attain and maintain air quality standards on schedule. For many areas of California, however, additional State and local regulations are required to achieve the standards. Regulations adopted by California are described below.

2.4.1 - California Regulations

Low Emission Vehicle Program

The ARB first adopted Low Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represented continuing progress in emission reductions. As the State's passenger vehicle fleet continued to grow and more sport utility vehicles and pickup trucks were used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 SIP. In 2012, ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known

[9] South Coast Air Quality Management District (SCAQMD). Jurisdiction Map. Website: http://www.aqmd.gov/docs/default-source/default-document-library/map-of-jurisdiction.pdf. Accessed June 24, 2022.

as the Advanced Clean Cars Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and GHGs for new passenger vehicles.[10]

On-Road Heavy-Duty Vehicle Program

The ARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, of the California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. The ARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, the School Bus Program, and others.[11]

ARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the ARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than 5 consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. The ARB is enforcing that part of the rule with fines up to $10,000 per day for each vehicle in violation. Performance requirements of the rule are based on a fleet's average NO_X emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirements, making the first compliance deadline January 1, 2014, for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less).

The latest amendments to the Truck and Bus Regulation became effective on December 31, 2014. The amended regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer, heavier trucks and buses met PM filter requirements beginning January 1, 2012. Mandatory replacement of lighter and older heavier trucks began January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel-fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds. The regulation provides a variety of flexibility options tailored to fleets operating low-use vehicles, fleets operating in selected vocations like agricultural and construction, and small fleets of three or fewer trucks. [12]

California Air Resources Board Airborne Toxic Control Measure for Asbestos

In July 2001, the ARB approved an Airborne Toxic Control Measure (ATCM) for construction, grading, quarrying, and surface mining operations to minimize emissions of naturally occurring asbestos. The

[10] California Legislative Information. 2002. Clean Car Standards—Pavley, Assembly Bill 1493. Website: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200120020AB1493. Accessed June 24, 2022.
[11] California Air Resource Board (ARB). On-Road Heavy-Duty Vehicle Programs. https://ww2.arb.ca.gov/road-heavy-duty-regulations-certification-programs. Accessed June 24, 2022.
[12] California Air Resources Board (ARB). 2015. On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation. Website: https://ww2.arb.ca.gov/our-work/programs/truck-and-bus-regulation/about. Accessed June 24, 2022.

regulation requires application of Best Management Practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities. The measure establishes specific testing, notification, and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than 1 acre. These projects require the submittal of a "Dust Mitigation Plan" and approval by the ARB prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs; the project site includes a few metal structures which would be demolished as part of the proposed project. In addition, asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present.

Areas are subject to the regulation if they are identified on maps published by the Department of Conservation as ultramafic rock units or if the Air Pollution Control Officer or owner/operator has knowledge of the presence of ultramafic rock, serpentine, or naturally occurring asbestos on the site. The measure also applies if ultramafic rock, serpentine, or asbestos is discovered during any operation or activity. Review of the Department of Conservation maps indicates that no ultramafic rock has been found near the project site.[13]

Diesel Risk Reduction Plan

The ARB's Diesel Risk Reduction Plan has led to the adoption of new State regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010 and 85 percent by 2020.[14]

Regulations for Heavy-Duty Vehicles/Trucks

California Air Resources Board Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. This ATCM adopted Section 2485 within Chapter 10, Article 1, Division 3, title 13 in the California Code of Regulations. The measure limits the idling of diesel vehicles (i.e., commercial trucks over 10,000 pounds) to reduce emissions of toxins and criteria pollutants. The driver of any vehicle subject to this section: (1) shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location; and (2) shall not idle a diesel-fueled auxiliary power system

[13] Department of Conservation. 2000. A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos. Website: https://ww2.arb.ca.gov/sites/default/files/classic//toxics/asbestos/ofr_2000-019.pdf. Accessed June 24, 2022.

[14] California Air Resources Board (ARB). 2000. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles. Website: https://ww2.arb.ca.gov/our-work/programs/diesel-risk-reduction-plan. Accessed June 24, 2022.

for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

California Air Resources Board Requirements to Reduce Idling Emissions from New and In-Use Trucks. Amendments were made to Title 13 of the California Code of Regulations, Sections 1956.8, 2404, 2424, 2425, and 2485. The amendment states: "all new 2008 and subsequent model year heavy-duty diesel engines shall be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to 'neutral' or 'park,' and the parking brake is engaged. If the parking brake is not engaged, then the engine shutdown system shall shut down the engine after 900 seconds of continuous idling operation once the vehicle is stopped and the transmission is set to 'neutral' or 'park.'" There are a few conditions where the engine shutdown system can be overridden to prevent engine damage. Any project trucks manufactured after 2008 would be consistent with this rule, which would ultimately reduce air emissions.

Statewide Truck and Bus Regulation (Regulation to Reduce Emissions of DPM, Oxides of Nitrogen and Other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles, Title 13, California Code of Regulations, Section 2025). On December 12, 2008, the ARB approved this regulation to reduce emissions from existing on-road diesel trucks and buses operating in California. This regulation applies to all on-road heavy-duty diesel-fueled vehicles with a gross vehicle weight rating greater than 14,000 pounds, agricultural yard trucks with off-road certified engines, and certain diesel-fueled shuttle vehicles of any gross vehicle weight rating. Out-of-state trucks and buses that operate in California are also subject to the regulation. Under the regulation, older, heavier trucks (i.e., those with pre-2000-year engines and a gross vehicle weight rating greater than 26,000 pounds), are required to have installed a PM filter and must be replaced with a 2010 engine between 2015 and 2020, depending on the model year.

Air Toxics Contaminant Measure for Transportation Refrigeration Units and Transportation Refrigeration Generator Sets was adopted by the ARB to reduce emissions of TAC emissions from in-use Transport Refrigeration Units (TRUs) and TRU generator sets used to power electrically-driven refrigerated shipping.[15]

2.4.2 - South Coast Air Quality Management District

SCAQMD CEQA Air Quality Guidelines

Standard Conditions

During construction and operation, the proposed project must comply with applicable rules and regulations. The following are rules and regulations the proposed project may be required to comply with, either directly or indirectly.

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any

[15] California Air Resource Board (ARB). 2022. Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units. Website: https://ww2.arb.ca.gov/resources/fact-sheets/2022-amendments-tru-atcm/printable/print. Accessed June 17, 2022.

considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through the application of standard BMPs, such as the application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with the Best Available Control Measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM_{10} component). Compliance with these rules would reduce impacts on nearby sensitive receptors.

Rule 403 measures may include, but are not limited to, the following:

- Apply non-toxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily. (Locations where grading is to occur will be thoroughly watered prior to earthmoving.)
- Cover all trucks hauling dirt, sand, soil, or other loose materials or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.
- Reduce traffic speeds on all unpaved roads to 15 mph or less.
- Suspension of all grading activities when wind speeds (including instantaneous wind gusts) exceed 25 mph.
- Provide bumper strips or similar BMPs where vehicles enter and exit the construction-site onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- Replant disturbed areas as soon as practical.
- During all construction activities, sweep on-site and off-site streets if silt is carried to adjacent public thoroughfares to reduce the amount of particulate matter on public streets. All sweepers shall be compliant with SCAQMD Rule 1186.1, Less Polluting Sweepers.

SCAQMD Rule 481 applies to all spray painting and spray coating operations and equipment. This rule would apply to the application of architectural coatings to the exterior and interior or of the building walls.

SCAQMD Rule 1108 governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the SoCAB. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, State, county, agency, or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of relocated or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM_{10} among other pollutants.

SCAQMD Rule 1401.1 provides additional health protection to children at schools or schools under construction from new or relocated facilities emitting TACs.

SCAQMD Rule 1403 establishes Survey Requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities.

SCAQMD Rule 2202, On-Road Motor Vehicle Mitigation Options, provides employers with a menu of options to reduce mobile source emissions generated from employee commutes to comply with federal and State Clean Air Act requirements, Health and Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

SCAQMD Rule 2305 is an indirect source rule that regulates warehouse facilities with at least 100,000 square feet of indoor floor space in a single building. The rule requires the implementation of emission reduction measures, or the payment of an annual mitigation fee, as well as requiring reporting on facility operations. The intent of the rule is to reduce emissions from the goods movement industry.

Air Quality Management Plans

As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. In the SoCAB, the SCAQMD is required to prepare a plan for improvement for the air pollutants for which the SoCAB is in nonattainment.

On March 3, 2017, the SCAQMD adopted the 2016 AQMP. The 2016 AQMP addressed strategies and measures to attain the 2008 federal 8-hour ozone standard by 2032, the 2012 federal annual $PM_{2.5}$ standard by 2021 to 2025, and the 2006 federal 24-hour $PM_{2.5}$ standard by 2019. The 2016 AQMP also examined the regulatory requirements for attaining the 2015 federal 8-hour ozone standard. The 2016 AQMP also updates previous attainment plans for ozone and $PM_{2.5}$ that have not yet been met.[16] In general, the AQMP is updated every 3 to 4 years. However, the air quality planning process for the AQMP is continuous and each iteration is an update of the previous plan.

To ensure air quality goals will be met while minimizing impacts to the regional economy, the following policy objectives guided the development of the plan:

- Eliminate reliance on “black box” (future technologies) to the maximum extent possible by providing specific pathways to attainment with specific control measures.
- Calculate and take credit for co-benefits from other planning efforts (e.g., GHG reduction targets, energy efficiency, and transportation).
- Develop a strategy with fair share emission reductions at the federal, State, and local levels, such as a new federal engine emission standards and/or additional authority provided to the State or SCAQMD for mobile sources.
- Seek significant funding for incentives to implement early deployment and commercialization of known zero and near-zero technologies.
- Invest in strategies and technologies meeting multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation.
- Enhance the socioeconomic analysis and select the most efficient and cost-effective path to achieve multi-pollutant and multi-deadline targets.
- Prioritize non-regulatory, innovative, and “win-win” approaches for emission reductions.

The AQMP also demonstrates compliance with all applicable Federal Clean Air Act requirements pertaining to nonattainment areas pursuant to the EPA-approved Implementation Rules, such as the annual average and summer planning emission inventory for criteria and precursor pollutants, attainment demonstrations, reasonably available control measures and reasonably available control technology analyses, reasonable further progress, PM precursor requirements, Vehicle Miles Traveled (VMT) demonstrations, and transportation conformity budgets for SoCAB.

The control measures in the 2016 AQMP are based on implementing all feasible control measures through the accelerated deployment of available cleaner technologies, BMPs, co-benefits from existing programs, and incentive measures. The 2016 AQMP control measures consist of three main components: (1) the SCAQMD’s Stationary and Mobile Source Control Measures; (2) suggested State

[16] South Coast Air Quality Management District (SCAQMD). 2017. Final 2016 Air Quality Management Plan. March. Website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15. Accessed June 24, 2022.

and federal Source Control Measures; and (3) Regional Transportation Plan Transportation Control Measures provided by the Southern California Association of Governments (SCAG). These measures rely on not only the traditional command-and-control approach but also public incentive programs, as well as advanced technologies expected to be developed and deployed in the next several years.

SCAQMD is currently in the process of updating the AQMP to address the recently strengthened primary and secondary NAAQS for ozone, which were lowered to 70 ppb by EPA in 2015. The SoCAB is classified as an "extreme" nonattainment area for the 2015 Ozone NAAQS.

SCAQMD CEQA Guidance

The SCAQMD has two roles under CEQA:

1. Lead Agency: responsible for preparing environmental analyses for its own projects (adoption of rules, regulations, or plans) or permit projects filed with the SCAQMD where the SCAQMD has primary approval authority over the proposed project.
2. Commenting Agency: reviews and comments on air quality analyses prepared by other public agencies (such as the proposed project).

The SCAQMD also provides guidance and thresholds for CEQA air quality and GHG analyses. The result of this guidance as well as State regulations to control air pollution is an overall improvement in the project area.

2.4.3 - Local

City of Perris General Plan

The City of Perris recently updated their General Plan in 2015. The Comprehensive General Plan 2030 guides for local government decision on growth, capital investment, and physical development in the City. The General Plan has the following measures adopted to reduce air quality impacts:[17]

Healthy Community (HC) Element

Goal HC-6 Healthy Environment–Support efforts of local businesses and regional agencies to improve the health of our region's environment.

Policy HE-6.1 Support regional efforts to improve air quality through energy efficient technology, use of alternative fuels, and land use and transportation planning.

Policy HE-6.3 Promote measures that will be effective in reducing emissions during construction activities:

Perris will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations.

[17] City of Perris. 2015. General Plan Healthy Community Element, Circulation Element, Conservation Element, and Environmental Justice Element. Website: https://www.cityofperris.org/departments/development-services/general-plan. Accessed June 24, 2022.

All construction equipment for public and private projects will also comply with California Air Resources Board’s vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD.

Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded.

Circulation Element

Goal VII A transportation system that maintains a high level of environmental quality.

Policy VII.A Implement the Transportation System in a manner consistent with federal, State, and local environmental quality standards and regulations.

VII.A.4 Control dust and mitigate other environmental impacts during all stages of roadway construction consistent with air quality regulations and mitigation measures established in environmental documents.

Conservation Element

Policy X.B Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.

Environmental Justice Element

Goal 3.1 Policy As part of the development review process, require conditions that promote Good Neighbor Policies for Industrial Development for industrial buildings larger than 100,000 square feet. The conditions shall be aimed at protecting nearby homes, churches, parks, daycare centers, schools, and nursing homes from air pollution, noise lighting, and traffic associated with large warehouses, making them a "good neighbor.”

City of Perris Municipal Code

Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project by project basis, and should be specific to the pollutant for which the daily threshold is exceeded.

The Perris Municipal Code establishes the following air quality provisions that are relevant to the proposed project.[18]

[18] City of Perris. Perris Municipal Code, Section 19.44.070. Website: https://library.municode.com/ca/perris/codes/code_of_ordinances?nodeId=COOR_TIT19ZO_CH19.44INZO_S19.44.070PEST. Accessed June 24, 2022.

CHAPTER 19.44.–INDUSTRIAL ZONES

Sec. 19.44.070.–Performance standards

- Odors, dust, and airborne pollution shall be controlled so as not to impact surrounding land uses or the public right-of-way. Proposed uses may be required to submit a detailed assessment addressing and mitigating any potential effects.
- Loading areas, trash enclosures and their aprons, or other site areas used by heavy vehicles shall be designed and constructed to support such vehicles and traffic.

Perris Valley Commerce Center Specific Plan

The intent of the PVCCSP is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and business of the City of Perris. The project site is zoned for light industrial use. This zone provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials, and retail related to manufacturing. The light industrial zone has a building intensity of 0.75 FAR and a maximum structure height limit of 50 feet. There are not standards or guidelines within the PVCCSP related to air quality. However, each project within the PVCCSP area is required to incorporate applicable mitigation from the PVCCSP EIR. The relevant Air Quality mitigation measures from the PVCC Specific Plan EIR are included below.[19]

MM Air-2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off peak-hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air-3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

[19] City of Perris. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report. Website: https://www.cityofperris.org/departments/development-services/specific-plans. Accessed June 24, 2022.

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,
- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air-4 Building and grading permits shall include a restriction that limits idling of construction equipment on-site to no more than 5 minutes.

MM Air-5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air-6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the ARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available ARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air-7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air-8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air-9 To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

MM Air-11 Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of 5 minutes.

MM Air-12 Where Transport Refrigeration Units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.

MM Air-13 In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other State programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, ARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year will be used at a facility with three or more dock-high doors, the developer/ successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD's website (http://www.aqmd.gov). Tenants will be required to use those funds, if awarded.

MM Air-14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air-19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air-20 Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 3: CLIMATE CHANGE SETTING

3.1 - Climate Change

Climate change is a change in the average weather of Earth that is measured by alterations in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes occurring in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. In its Fourth Assessment Report, the IPCC predicted that the global mean temperature changes from 1990 to 2100, given six scenarios, could range from 1.1°C (degrees Celsius) to 6.4°C. Regardless of analytical methodology, global average temperatures and sea levels are expected to rise under all scenarios.[20] The report also concluded that "[w]arming of the climate system is unequivocal," and that "[m]ost of the observed increase in global average temperatures since the mid-20th Century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."

An individual project cannot generate enough GHG emissions to effect a discernible change in global climate. However, the project participates in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

3.1.1 - Consequences of Climate Change in California

In California, climate change may result in consequences such as the following.[21,22]

- **A reduction in the quality and supply of water from the Sierra snowpack.** If heat-trapping emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. This can lead to challenges in securing adequate water supplies. It can also lead to a potential reduction in hydropower.

---

20 Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Website: https://www.ipcc.ch/report/ar4/wg1/. Accessed June 24, 2022.

21 California Climate Change Center (CCCC). 2006. Our Changing Climate, Assessing the Risks to California: A Summary Report from the California Climate Change Center. July 2006. CEC-500-2006-077. Website: https://www.scc.ca.gov/webmaster/ftp/pdf/climate_change/assessing_risks.pdf. Accessed June 24, 2022.

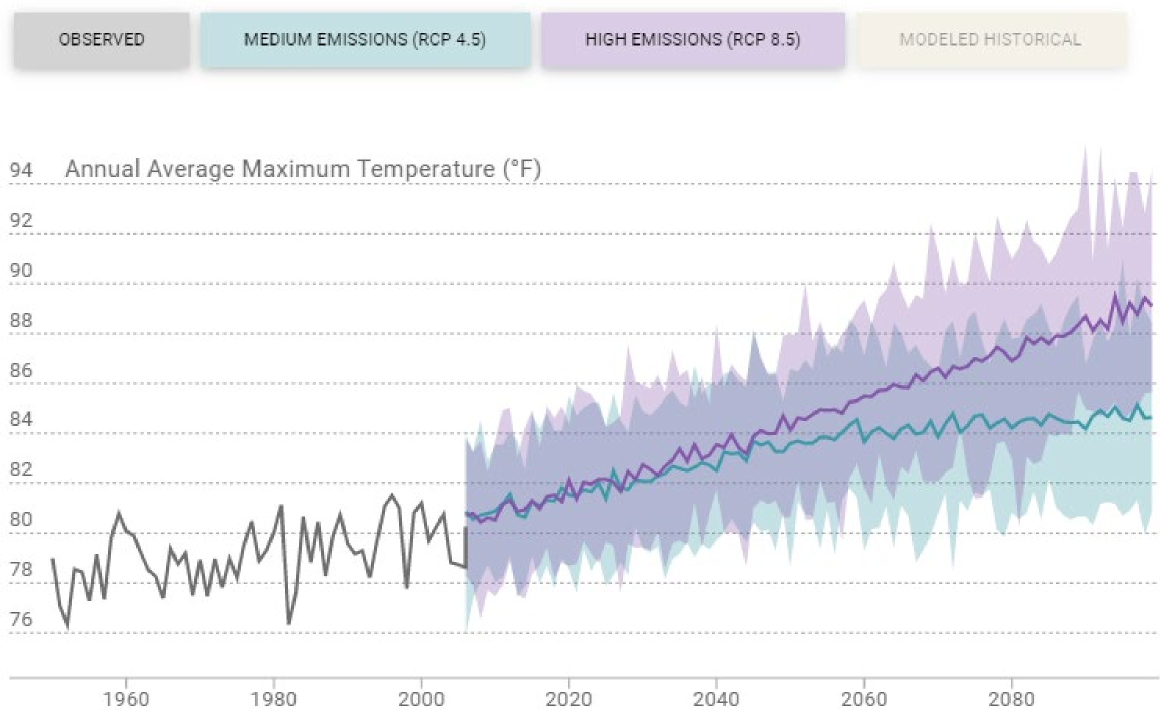
22 Moser et al. 2009. Moser, Susie, Guido Franco, Sarah Pittiglio, Wendy Chou, Dan Cayan. 2009. The Future Is Now: An Update on Climate Change Science Impacts and Response Options for California. California Energy Commission, PIER Energy-Related Environmental Research Program. CEC-500-2008-071. Website: https://lynceans.org/wp-content/uploads/2020/01/Moser-2009-Climate-change-impacts-across-CA-.pdf. Accessed June 24, 2022.

- **Increased risk of large wildfires.** If rain increases as temperatures rise, wildfires in the grasslands and chaparral ecosystems of Southern California are estimated to increase by approximately 30 percent toward the end of the twenty-first century because more winter rain will stimulate the growth of more plant "fuel" available to burn in the fall. In contrast, a hotter, drier climate could promote up to 90 percent more Northern California fires by the end of the century by drying out and increasing the flammability of forest vegetation.
- **Reductions in the quality and quantity of certain agricultural products.** The crops and products likely to be adversely affected include wine grapes, fruit, nuts, and milk.
- **Exacerbation of air quality problems.** If temperatures rise to the medium warming range, there could be 75 to 85 percent more days with weather conducive to ozone formation in Los Angeles and the San Joaquin Valley, relative to today's conditions. This is more than twice the increase expected if rising temperatures remain in the lower warming range. This increase in air quality problems could result in an increase in asthma and other health-related problems.
- **A rise in sea levels resulting in the displacement of coastal businesses and residences.** During the past century, sea levels along California's coast have risen about seven inches. If emissions continue unabated and temperatures rise into the higher anticipated warming range, sea level is expected to rise an additional 22 to 35 inches by the end of the century. Elevations of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.
- **An increase temperature and extreme weather events.** Climate change is expected to lead to increases in the frequency, intensity, and duration of extreme heat events and heat waves in California. More heat waves can exacerbate chronic disease or heat-related illness.
- **A decrease in the health and productivity of California's forests.** Climate change can cause an increase in wildfires, an enhanced insect population, and establishment of non-native species.

City of Perris Area

Figure 1 displays a chart of measured historical and projected annual average temperatures in the City of Perris area. As shown in the figure, temperatures are expected to rise in the low and high GHG emissions scenarios. The results indicate that temperatures by the end of the century are predicted to increase by 5.6°F under the medium emissions scenario and 8.9°F under the high emissions scenario.[23]

[23] Cal-Adapt. 2022. Local Climate Snapshots. Website: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed June 24, 2022.



Source: Cal-Adapt. 2022. Local Climate Snapshots. Website: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed June 24, 2022.

Figure 1: Observed and Projected Temperatures for Climate Change in the Project Area

3.2 - Greenhouse Gases

Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons, hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF_6), ozone, and aerosols. Natural processes and human activities emit GHGs. The presence of GHGs in the atmosphere affects the Earth's temperature. It is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Individual GHG compounds have varying global warming potential and atmospheric lifetimes. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere. To describe how much global warming a given type and amount of GHG may cause, the CO_2 equivalent (CO_2e) is used. The calculation of the CO_2 equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 25 indicates that CH_4 has 25 times greater warming effect than CO_2 on a molecule-per-molecule basis. A CO_2 equivalent is the mass emissions of an individual GHG multiplied by its global warming potential. As described in Table 6, the GHGs defined by Assembly Bill (AB) 32 (see the Climate Change Regulatory Environment section for a description) include CO_2, CH_4, N_2O, HFC, PFC, and SF_6. A seventh GHG, nitrogen trifluoride (NF_3), was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern.

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (laughing gas) is a colorless GHG. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes.
CH_4	Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years. Its global warming potential is 25.	Methane is extracted from geological deposits (natural gas fields). Other sources are landfills, fermentation of manure, and decay of organic matter.
CO_2	CO_2 is an odorless, colorless, natural GHG. CO_2's global warming potential is 1. The concentration in 2005 was 379 parts per million (ppm), which is an increase of about 1.4 ppm per year since 1960.	Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood.
HFC	HFCs are a group of GHGs containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	HFCs are synthetic man-made chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
PFC	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Global warming potentials range from 6,500 to 9,200.	Two main sources of PFCs are primary aluminum production and semiconductor manufacturing.
SF_6	SF_6 is an inorganic, odorless, colorless, and non-toxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is man-made and used for insulation in electric power transmission equipment in the magnesium industry, in semiconductor manufacturing, and as a tracer gas.
Nitrogen trifluoride	Nitrogen trifluoride (NF_3) was added to Health and Safety Code Section 38505(g)(7) as a GHG of concern. It has a high global warming potential of 17,200.	This gas is used in electronics manufacture for semiconductors and liquid crystal displays.

Sources: Compiled from a variety of sources, primarily
Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Website: https://www.ipcc.ch/report/ar4/wg1/. Accessed June 24, 2022.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K. and Reisinger, A. (eds.)]. Website: https://www.ipcc.ch/report/ar4/syr/. Accessed June 24, 2022.

The State of California has begun the process of addressing pollutants referred to as short-lived climate pollutants. The short-lived climate pollutants include three main components: black carbon, fluorinated gases, and methane. The ARB approved the Short-Lived Climate Pollutant Reduction Strategy in March 2017. The ARB has completed an emission inventory of these pollutants, identified research needs, identified existing and potential new control measures that offer co-benefits, and coordinated with other State agencies and districts to develop measures.[24] Typical sources of black carbon are already regulated by the ARB, and air district criteria pollutant and toxic regulations control $PM_{2.5}$ from diesel engines and other combustion sources.[25] Additional controls on the sources of black carbon, specifically for their GHG impacts beyond those required for toxic and fine particulates, are not likely to be needed.

Human Health Effects of GHG Emissions

GHG emissions from development projects do not result in concentrations that would directly impact public health. However, the cumulative effects of GHG emissions on climate change have the potential to cause adverse effects to human health.[26]

The United States Global Change Research Program, in its Global Climate Change Impacts in the United States report,[27] has analyzed the degree to which impacts on human health are expected to impact the United States.

Potential effects of climate change on public health include:

- **Direct Temperature Effects:** Climate change may directly affect human health through increases in average temperatures, which are predicted to increase the incidence of heat waves and hot extremes.
- **Extreme Events:** Climate change may affect the frequency and severity of extreme weather events, such as hurricanes and extreme heat and floods, which can be destructive to human health and well-being.
- **Climate-Sensitive Diseases:** Climate change may increase the risk of some infectious diseases, particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects, such as malaria, dengue fever, yellow fever, and encephalitis.
- **Air Quality:** Respiratory disorders may be exacerbated by warming-induced increases in the frequency of smog (ground-level ozone) events and particulate air pollution.

Although there could be health effects resulting from changes in the climate and the consequences that can occur, inhalation of GHGs at levels currently in the atmosphere would not result in adverse health effects, with the exception of ozone and aerosols (PM). At very high indoor concentrations

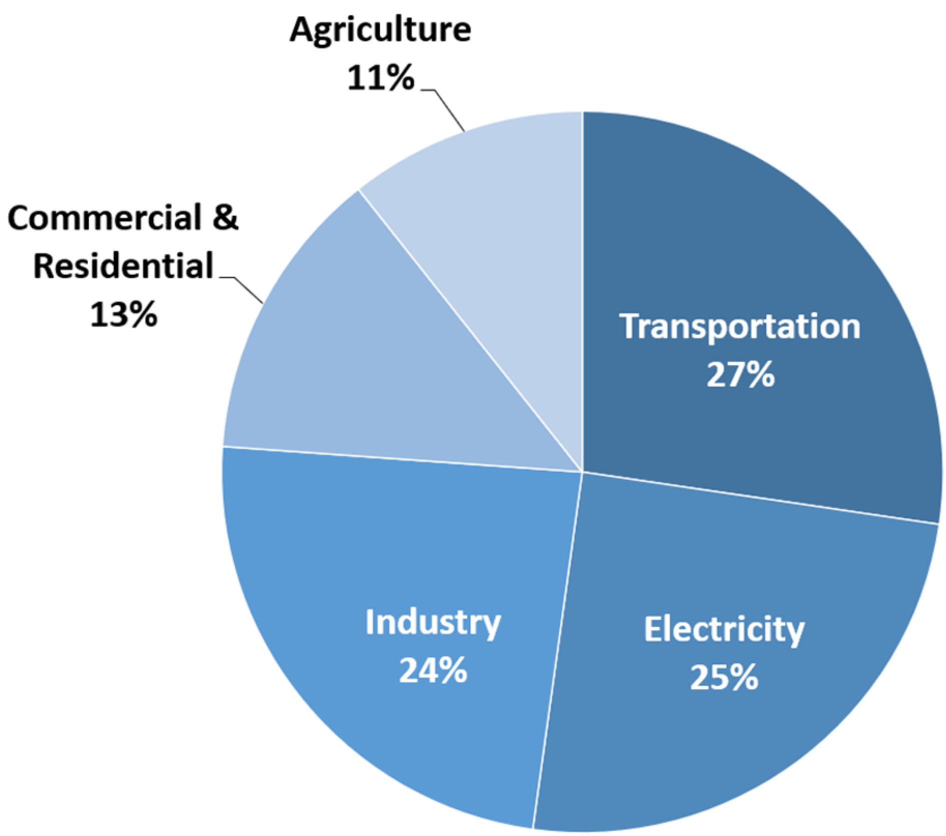
[24] California Air Resources Board (ARB). 2016. Proposed Short-Lived Climate Pollutant Reduction Strategy. Website: http://www.arb.ca.gov/cc/shortlived/shortlived.htm. Accessed June 24, 2022.
[25] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed June 24, 2022.
[26] Centers for Disease Control and Prevention (CDC). CDC's Climate and Health Program - an Investment in our Future. Website: https://www.cdc.gov/climateandhealth/factsheet.htm. Accessed June 24, 2022.
[27] The United States Global Change Research Program. 2009. Global Climate Change Impacts in the United States. Website: https://downloads.globalchange.gov/usimpacts/pdfs/climate-impacts-report.pdf. Accessed June 24, 2022.

(not at levels existing outside), CO, CH_4, SF_6, and some chlorofluorocarbons can cause suffocation as the gases can displace oxygen.

3.2.1 - Emissions Inventories

United States GHG Inventory

In 2019, United States GHG emissions totaled 6,558 million metric tons (MMT) CO_2e. In 2020, U.S. GHG emissions totaled 5,222 million MMT CO_2e after accounting for sequestration from the land sector. Emissions decreased from 2019 to 2020 by 11 percent (after accounting for sequestration from the land sector). The primary driver for the decrease was an 11 percent decrease in CO_2 emissions from fossil fuel combustion. This decrease was primarily due to a 13 percent decrease in transportation emissions driven by decreased demand due to the ongoing COVID-19 pandemic. Figure 2 presents 2020 United States GHG emissions by economic sector. GHG emissions in 2020 were 21 percent below 2005 levels.[28]



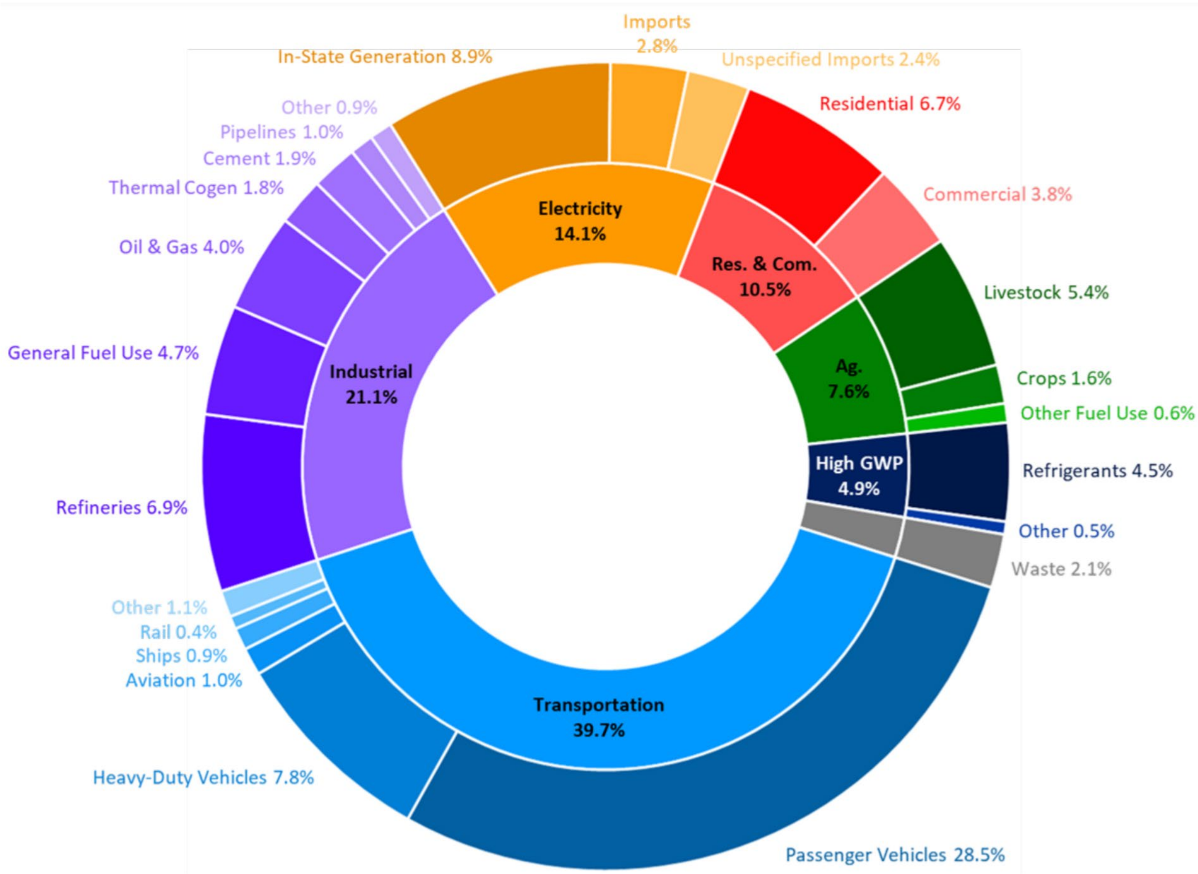
Source: Inventory of U.S. GHG Emissions and Sinks. 2022. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed June 18, 2022.

Figure 2: Sources of U.S. Greenhouse Gas Emissions in 2020

[28] United States Environmental Protection Agency (EPA). 2022. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed June 18, 2022.

California GHG Inventory

As the second largest emitter of GHG emissions in the United States, California contributes a large quantity (481.2 MMT CO_2e in 2019) of GHG emissions to the atmosphere.[29] Anthropogenic CO_2 are largely byproducts of fossil fuel combustion and are attributable to transportation, industry/ manufacturing, electricity generation, natural gas consumption, and agriculture processes. As shown in Figure 3, in California, the transportation sector is the largest emitter at approximately 40 percent of GHG emissions, followed by industrial at approximately 21 percent of GHG emissions.[30]



Source: California Air Resources Board (ARB). 2021. California GHG Inventory. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed June 23, 2022.

Figure 3: California GHG Emissions by Sector in 2019

3.3 - Regulatory Environment

3.3.1 - International

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and

[29] California Air Resources Board (ARB). 2021. Current California GHG Emission Inventory Data. Website: https://ww2.arb.ca.gov/ghg-inventory-data. Accessed June 24, 2022.

[30] California Air Resources Board (ARB). 2021. California GHG Inventory. Website: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf. Accessed June 24, 2022.

socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change. On March 21, 1994, the United States joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

Kyoto Protocol. The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change. The major feature of the Kyoto Protocol is that it set binding targets for 37 industrialized countries and the European community for reducing GHG emissions at average of 5 percent against 1990 levels over the 5-year period from 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol committed them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol placed a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the United States Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. There have been several meetings held to address international climate change commitments post Kyoto, the most notable of which were held by the United Nations Climate Change Committee. The meetings are gradually gaining consensus among participants on individual climate change issues. At the Climate Summit hosted by the United Nations in September 2014, heads of government, business, and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Paris Climate Change Agreement. Parties to the Convention reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a 4-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review. The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st Session of the Convention Conference of the Parties, or COP 21.[31]

On June 1, 2017, Former President Donald Trump announced the decision for the United States to withdraw from the Paris Climate Accord.[32] On January 20, 2021, President Biden announced the

[31] Center for Climate and Energy Solutions (C^2ES). 2015. Outcomes of the U.N. Climate Change Conference. Website: http://www.c2es.org/international/negotiations/cop21-paris/summary. Accessed June 24, 2022.
[32] The White House. Statement by President Trump on the Paris Climate Accord. Website: https://it.usembassy.gov/statement-president-trump-paris-climate-accord/. Accessed June 24, 2022.

decision for the United States to re-commit to the Paris Climate Accord.[33] The United States officially became a party to the Agreement once again on February 19, 2021, after a mandatory 30-day waiting period.[34] California remains committed to combating climate change through programs aimed to reduce GHGs.[35]

3.3.2 - Federal Regulations

The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG Endangerment. *Massachusetts v. EPA* (Supreme Court Case 05-1120) was argued before the United States Supreme Court on November 29, 2006, in which it was petitioned that the EPA regulate four GHGs, including CO_2, under Section 202(a)(1) of the Clean Air Act. A decision was made on April 2, 2007, in which the Supreme Court found that GHGs are air pollutants covered by the Clean Air Act. The Court held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act. These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the United States Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator findings.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light-duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Safety Administration announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. It required these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the National Highway Safety Administration issued final rules on a second phase joint rulemaking, establishing national standards for light-duty vehicles for model

[33] The White House. 2021. Statement by President Biden: Paris Climate Agreement. Website: https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/. Accessed June 24, 2022.
[34] United States Department of State. 2021. The United States Officially Rejoins the Paris Agreement. Website: https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/. Accessed June 24, 2022.
[35] California Air Resources Board (ARB). 2017. New Release: California and China Team Up to Push for Millions More Zero Emission Vehicles. Website: https://ww2.arb.ca.gov/news/california-and-china-team-push-millions-more-zero-emission-vehicles. Accessed June 24, 2022.

years 2017 through 2025 in August 2012.[36] The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the United States Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, which became effective November 14, 2011. For combination tractors, the agencies proposed engine and vehicle standards that began in the 2014 model year and achieve up to a 20 percent reduction in CO_2 emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies proposed separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10 percent reduction for gasoline vehicles and a 15 percent reduction for diesel vehicles by 2018 model year (12 and 17 percent respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10 percent reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

The State of California has received a waiver from the EPA to have separate, stricter corporate average fuel economy standards. Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of GHG emissions. To manage the State's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975. It should be noted that the EPA recently rescinded California's waiver for its GHG and Zero-Emission Vehicle (ZEV) mandates; however, all ARB standards are still in effect at the time of this writing.[37] In September 2020, Governor Gavin Newsom issued Executive Order N-79-20, which requires sales of all new passenger vehicles to be zero emission by 2035 and additional measures to eliminate harmful emissions from the transportation sector.

Consolidated Appropriations Act (Mandatory GHG Reporting). The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of Greenhouse Gases Rule, which became effective January 1, 2010. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons (MT) or more per year of GHG emissions are required to submit annual reports to the EPA.

New Source Review. The EPA issued a final rule on May 13, 2010, which established thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final

[36] United States Environmental Protection Agency (EPA). 2012. EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks. August. Website: https://www.nhtsa.gov/document/fact-sheet-epa-and-nhtsa-propose-standards-reduce-greenhouse-gas-emissions-and-improve. Accessed June 24, 2022.

[37] Beveridge & Diamond Professional Corporation. 2019. EPA Rescinds California's Authority to Regulate Vehicle Tailpipe Greenhouse Gas Emissions and to Implement a Zero-Emission Vehicle Program. September 23. Website: https://www.bdlaw.com/publications/epa-rescinds-californias-authority-to-regulate-vehicle-tailpipe-greenhouse-gas-emissions-and-to-implement-a-zero-emission-vehicle-program/. Accessed June 24, 2022.

rule "tailors" the requirements of these Clean Air Act permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits.

The EPA estimates that facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units. As required by a settlement agreement, the EPA proposed new performance standards for CO_2 emissions for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts would be required to meet an output-based standard of 1,000 pounds of CO_2 per megawatt-hour (MWh) based on the performance of widely used natural gas combined cycle technology.

Cap and Trade. Cap and trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. There is no federal GHG Cap-and-Trade Program currently; however, some states have joined to create initiatives to provide a mechanism for cap and trade.

The Western Climate Initiative partner jurisdictions developed a comprehensive initiative to reduce regional GHG emissions to 1990 levels by 2020. The partners are California, British Columbia, Manitoba, Ontario, and Québec. Currently only California and Québec are participating in the Cap-and-Trade Program.[38]

3.3.3 - California

Legislative Actions to Reduce GHGs

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark AB 32 California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as the Title 24 and Title 20 energy standards, was originally adopted for other purposes, such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards. California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the by the United States District Court for the District of Columbia in 2011.[39] The standards were to be phased in during the 2009 through

[38] Center for Climate and Energy Solutions (C^2ES). 2015. Cap and Trade Basics. Website: https://www.c2es.org/content/cap-and-trade-basics/. Accessed June 24, 2022.

[39] California Air Resources Board (ARB). 2013. Clean Car Standards—Pavley, Assembly Bill 1493. Website: http://www.arb.ca.gov/cc/ccms/ccms.htm. Accessed June 24, 2022.

2016 model years.[40] It should be noted that the EPA recently rescinded California's waiver for its GHG and ZEV mandates; however, all ARB standards are still in effect at the time of this writing.[41]

The second phase of the implementation for the Pavley Bill was incorporated into Amendments to the LEV Program referred to as LEV III or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation is anticipated to reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules will reduce pollutants from gasoline and diesel-powered cars, and deliver increasing numbers of zero emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. The regulations will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.[42]

Assembly Bill 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. Greenhouse gases, as defined under AB 32, include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs.

The ARB is the State agency charged with monitoring and regulating sources of GHGs. The ARB approved the 1990 GHG emissions level of 427 MMT CO_2e on December 6, 2007.[43] Therefore, to meet the State's target, emissions generated in California in 2020 were required to be equal to or less than 427 MMT CO_2e. Emissions in 2020 in a Business as Usual (BAU) scenario were estimated to be 596 MMT CO_2e, which does not account for reductions from AB 32 regulations.[44] At that rate, a 28 percent reduction was required to achieve the 427 MMT CO_2e 1990 inventory. In October 2010, ARB prepared an updated 2020 forecast to account for the effects of the 2008 recession and slower forecasted growth. Under the updated forecast, a 21.7 percent reduction from BAU is required to achieve 1990 levels.[45] On July 11, 2018, ARB announced that the State has met its target of reducing GHG emissions to 1990 levels.[46]

California Air Resources Board Scoping Plan. The ARB Climate Change Scoping Plan (Scoping Plan) contains measures that were designed to reduce the State's emissions to 1990 levels by the year 2020

---

40 California Air Resources Board (ARB). Advanced Clean Cars Summary. Website: https://ww2.arb.ca.gov/sites/default/files/2019-12/acc%20summary-final_ac.pdf. Accessed June 24, 2022.

41 Beveridge & Diamond Professional Corporation. 2019. EPA Rescinds California's Authority to Regulate Vehicle Tailpipe Greenhouse Gas Emissions and to Implement a Zero Emission Vehicle Program. September 23. Website: https://www.bdlaw.com/publications/epa-rescinds-californias-authority-to-regulate-vehicle-tailpipe-greenhouse-gas-emissions-and-to-implement-a-zero-emission-vehicle-program/. Accessed June 24, 2022.

42 California Air Resources Board (ARB). 2011. Status of Scoping Plan Recommended Measures. Website: https://calcarbondash.org/cc/scopingplan/sp_measures_implementation_timeline.pdf. Accessed June 24, 2022.

43 California Air Resources Board (ARB). 2007. Staff Report. California 1990 Greenhouse Gas Level and 2020 Emissions Limit. November 16, 2007. Website: www.arb.ca.gov/cc/inventory/pubs/reports/staff_report_1990_level.pdf. Accessed June 24, 2022.

44 California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed June 24, 2022.

45 California Air Resources Board (ARB). 2014 Edition BAU Emissions Projection. Website: https://ww2.arb.ca.gov/ghg-bau. Accessed June 24, 2022.

46 California Air Resources Board. 2018. Climate Pollutants Fall Below 1990 Levels for First Time. Website: https://ww2.arb.ca.gov/news/climate-pollutants-fall-below-1990-levels-first-time. Accessed June 24, 2022.

to comply with AB 32.[47] The Scoping Plan identified recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector had a different emission reduction target. Most of the measures targeted the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target included:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.
- Achieving a Statewide renewables energy mix of 33 percent.
- Developing a California Cap-and-Trade Program that links with other Western Climate Initiative partner programs to create a regional market system.
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS).
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed Cap-and-Trade Program. Implementation of the capped strategies is calculated to achieve a sufficient number of reductions by 2020 to achieve the emission target contained in AB 32. Uncapped strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[48]

The ARB approved the First Update to the Scoping Plan on May 22, 2014. The First Update builds upon the initial Scoping Plan with new strategies and recommendations.

Senate Bill 375—the Sustainable Communities and Climate Protection Act of 2008. Senate Bill (SB) 375 was signed into law on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40 percent of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) requires Metropolitan Planning Organizations (MPOs) to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

---

[47] California Air Resources Board (ARB). 2008. (includes edits made in 2009) Climate Change Scoping Plan, a framework for change. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed June 24, 2022.

[48] California Air Resources Board (ARB). 2008 (includes edits made in 2009). Climate Change Scoping Plan, a framework for change. Website: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed June 24, 2022.

Senate Bill 32 and the 2017 Climate Change Scoping Plan Update. The Governor signed SB 32 in September 2016, giving the ARB the statutory responsibility to include the 2030 target previously contained in Executive Order B-30-15 in the 2017 Scoping Plan Update. SB 32 states that "In adopting rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions authorized by this division, the State [air resources] board shall ensure that Statewide greenhouse gas emissions are reduced to at least 40 percent below the Statewide greenhouse gas emissions limit no later than December 31, 2030." The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. The major elements of the framework proposed to achieve the 2030 target are as follows:

1. SB 350
    - Achieve 50 percent Renewables Portfolio Standard (RPS) by 2030.
    - Doubling of energy efficiency savings by 2030.
2. Low Carbon Fuel Standard
    - Increased stringency (reducing carbon intensity 18 percent by 2030, up from 10 percent in 2020).
3. Mobile Source Strategy (Cleaner Technology and Fuels Scenario)
    - Maintaining existing GHG standards for light- and heavy-duty vehicles.
    - Put 4.2 million ZEVs on the roads.
    - Increase ZEV buses, delivery, and other trucks.
4. Sustainable Freight Action Plan
    - Improve freight system efficiency.
    - Maximize use of near-zero emission vehicles and equipment powered by renewable energy.
    - Deploy over 100,000 zero emission trucks and equipment by 2030.
5. Short-Lived Climate Pollutant Reduction Strategy
    - Reduce emissions of methane and HFCs 40 percent below 2013 levels by 2030.
    - Reduce emissions of black carbon 50 percent below 2013 levels by 2030.
6. SB 375 Sustainable Communities Strategies
    - Increased stringency of 2035 targets.
7. Post-2020 Cap-and-Trade Program
    - Declining caps, continued linkage with Québec, and linkage to Ontario, Canada.
    - The ARB will look for opportunities to strengthen the program to support more air quality co-benefits, including specific program design elements. In Fall 2016, ARB staff described potential future amendments including reducing the offset usage limit, redesigning the allocation strategy to reduce free allocation to support increased technology and energy investment at covered entities and reducing allocation if the covered entity increases criteria or toxics emissions over some baseline.
8. 20 percent reduction in GHG emissions from the refinery sector.
9. By 2018, develop Integrated Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 1368—Emission Performance Standards. In 2006, the State Legislature adopted SB 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements of longer than 5 years for energy from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The California Public Utilities Commission adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to, publicly owned utilities, of 1,100 pounds CO_2 per MWh.

Senate Bill 1078—Renewable Electricity Standards. On September 12, 2002, Governor Gray Davis signed SB 1078, requiring California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established an RPS target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Governor Schwarzenegger also directed the ARB (Executive Order S-21-09) to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. The ARB approved the Renewable Electricity Standard on September 23, 2010, by Resolution 10-23.

Senate Bill 350—Clean Energy and Pollution Reduction Act of 2015. The legislature recently approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies toward a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50 percent reduction in the use of petroleum Statewide were removed from the Bill due to opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce Statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024 and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator to develop more regional electrified transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.[49]

Senate Bill 100—The 100 Percent Clean Energy Act of 2018. The legislation directs the CPUC, CEC, and the ARB to plan for 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. This Act amends

[49] California Legislative Information (California Leginfo). 2015. Senate Bill 350 Clean Energy and Pollution Reduction Act of 2015. Website: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350. Accessed June 24, 2022.

Sections 399.11, 399.15, and 399.30 of, and adds Section 454.53 to, the Public Utilities Code relating to energy.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the State and guide the actions of State agencies.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an Executive Order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07—Low Carbon Fuel Standard. The Governor signed Executive Order S 01-07 on January 18, 2007. The order mandates that a Statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, ARB, University of California, and other agencies to develop and propose protocols for measuring the "lifecycle carbon intensity" of transportation fuels. The ARB adopted the LCFS on April 23, 2009.

The LCFS was subject to legal challenge in 2011. Ultimately, on August 8, 2013, the Fifth District Court of Appeal (California) ruled that the ARB failed to comply with CEQA and the Administrative Procedure Act when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal directed that Resolution 09-31 and two Executive Orders of the ARB approving LCFS regulations promulgated to reduce GHG emissions be set aside. However, the Court tailored its remedy to protect the public interest by allowing the LCFS regulations to remain operative while ARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, the ARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low carbon fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. The second public hearing for the new LCFS regulation was held on September 24, 2015, and September 25, 2015, where the LCFS regulation was adopted. The Final Rulemaking Package adopting the regulation was filed with the Office of Administrative Law (OAL) on October 2, 2015. The OAL approved the regulation on November 16, 2015.[50]

Executive Order S-13-08. Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its population and to its natural resources." Pursuant to the requirements in the order, the 2009 California Climate Adaptation Strategy[51] was adopted, which is the ". . . first Statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order B-30-15. On April 29, 2015, Governor Edmund G. Brown Jr. issued an Executive Order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's Executive Order aligned California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Executive Order sets a new interim Statewide GHG emission reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directs the ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of MT CO_2e. The Executive Order also requires the State's climate adaptation plan to be updated every 3 years and for the State to continue its climate change research program, among other provisions.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

California Code of Regulations Title 13: Motor Vehicles. California Code of Regulations, Title 13: Division 3, Chapter 10, Article 1, Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.[52] This measure seeks to reduce public exposure to DPM and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. Any person that owns, operates, or causes to operate any diesel-fueled commercial motor vehicle must not allow a vehicle to idle for more than 5 consecutive minutes at any location or operate a diesel-fueled auxiliary power system for greater than 5 minutes at any location when within 100 feet of a restricted area.

California Code of Regulations, Title 13: Division 3, Chapter 9, Article 4.8, Section 2449: General Requirements for In-Use Off-Road Diesel-Fueled Fleets. This measure regulates NO_X, DPM, and other

[50] California Air Resources Board (ARB). 2015. Low Carbon Fuel Standard Regulation. Website: https://www.arb.ca.gov/regact/2015/lcfs2015/lcfs2015.htm. Accessed June 24, 2022.
[51] California Natural Resources Agency. 2009. 2009 California Climate Adaptation Strategy. Website: https://cawaterlibrary.net/wp-content/uploads/2017/05/Statewide_Adaptation_Strategy.pdf. Accessed June 24, 2022.
[52] California Air Resources Board (ARB). Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Website: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about. Accessed June 24, 2022.

criteria pollutant emissions from in-use, off-road diesel-fueled vehicles. This measure also requires each fleet to meet fleet average requirements or demonstrate that it has met "best available control technology" requirements. Additionally, this measure requires medium and large fleets to have a written idling policy that is made available to operators of the vehicles informing them that idling is limited to 5 consecutive minutes or less.

Title 20 Appliance Efficiency Regulations. California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Title 24 Energy Efficiency Standards. California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The newest version of Title 24 adopted by the CEC went into effect on January 1, 2020.

Title 24 California Green Building Standards Code. California Code of Regulations Title 24 Part 11 code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect January 1, 2011. The code is updated on a regular basis, with the most recent update consisting of the 2019 California Green Building Code Standards Code (CALGreen) that became effective January 1, 2020.[53] Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

Model Water Efficient Landscape Ordinance. The Model Water Efficient Landscape Ordinance (Ordinance) was required by AB 1881 Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with (SBX-7-7) 2020 mandate are expected for Ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed the California Department of Water Resources to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015, which became effective on December 15, 2015. New development projects that include landscaped areas of 500 square feet or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems.

[53] State of California. 2020. California Green Building Standards Code (CALGreen). Website: https://calgreenenergyservices.com/wp/wp-content/uploads/2019_california_green_code.pdf. Accessed June 24, 2022.

- Incentives for graywater usage.
- Improvements in on-site stormwater capture.
- Limits on the portion of landscapes that can be planted with high water use plants.
- Reporting requirements for local agencies.

Senate Bill 97 and the CEQA Guidelines Revisions. Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. SB 97 states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the Office of Planning and Research pursuant to subdivision (a)."

The 2010 CEQA Amendments first guided public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The 2010 CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change. The 2010 CEQA Amendments also revised Appendix F of the CEQA Guidelines, which focuses on energy conservation, and the sample environmental checklist in Appendix G was amended to include GHG questions.

The most recent 2018 CEQA Amendments expanded upon the previous guidance by specifying that:

- The lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to Statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and State regulatory schemes.
- In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.
- A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.

California Supreme Court GHG Ruling

In a November 30, 2015, ruling, the California Supreme Court, in *Center for Biological Diversity v. California Department of Fish and Wildlife* on the Newhall Ranch project, concluded that whether the project was consistent with meeting Statewide emission reduction goals is a legally permissible criterion of significance, but the significance finding for the project was not supported by a reasoned explanation based on substantial evidence. The Court offered potential solutions on pages 25-27 of the ruling to address this issue summarized below:

Specifically, the Court advised that:

- **Substantiation of Project Reductions from BAU**. A lead agency may use a BAU comparison based on the Scoping Plan's methodology if it also substantiates the reduction a particular project must achieve to comply with Statewide goals (page 25).
- **Compliance with Regulatory Programs or Performance Based Standards**. A lead agency "might assess consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce greenhouse gas emissions from particular activities" (page 26).
- **Compliance with GHG Reduction Plans or Climate Action Plans**. A lead agency may utilize "geographically specific GHG emission reduction plans" such as Climate Action Plans (CAPs) or GHG emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis (page 26).
- **Compliance with Local Air District Thresholds**. A lead agency may rely on "existing numerical thresholds of significance for greenhouse gas emissions" adopted by, for example, local air districts (page 27).

The Supreme Court was concerned that new development may need to do more than existing development to reduce GHGs to demonstrate that it is doing its fair share of reductions.

3.3.4 - South Coast Air Quality Management District

The SCAQMD provides multiple options in its 2016 SCAQMD CEQA Guidelines for operational GHG emissions generation significance thresholds.

The proposed project is within the SoCAB. The SCAQMD works directly with SCAG, local governments, and State and federal agencies to attain and maintain air quality standards. The applicable air quality plan for the project is the SCAQMD's 2016 AQMP.

SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a GHG Reduction Program for GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

3.3.5 - Local

City of Perris General Plan and General Plan EIR

The City's General Plan and the Chapter of "Conservation Element" provides policies that aim to conserve energy and reduce GHG emissions.[54]

Goal VIII Sustainable Future: Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.

Policy VIII.A Adopt and maintain development regulations that encourage water and resource conservation.

VIII.A.2 Use indigenous and/or drought resistant planting and efficient irrigation systems with smart controls in all new and refurbished commercial and industrial development projects. Also, restrict use of turf to 25 percent or less of the landscaped areas.

VIII.A.4 Use gray water, and water conserving appliances and fixtures within all new commercial and industrial developments.

Policy VIII.B Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.

VIII.B.1 Initiate and maintain incentive programs to encourage and reward developments that employ energy and resource conservation and green building practices similar to the City's current recycling program.

VIII.B.6 Include text within all demolition permits that encourages recycling of demolition and construction waste within new and refurbished commercial and industrial development projects.

Policy VIII.C Adopt and maintain development regulations which encourage increased energy efficiency in buildings, and the design of durable buildings that are efficient and economical to own and operate. Encourage green building development by establishing density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who meet LEED™ building standards for new and refurbished developments (U.S. Green Building Council's Leadership in Energy and Environmental Design green building programs).

VIII.C.1 Create a green building ordinance that promotes the use of green building technology and design.

54 City of Perris. General Plan. Website: https://www.cityofperris.org/departments/development-services/general-plan. Accessed June 24, 2022.

Goal IX Encourage project designs that support the use of alternative transportation facilities.

Policy IX.A Encourage land uses and new development that support alternatives to the single occupant vehicle.

Goal X Encourage improved energy performance standards above and beyond the California Title 24 requirements.

Goal XI The City shall lead the development community by example in green building, and energy and resource conservation practices.

Policy XI.B The City shall actively reduce greenhouse gas emissions from public facilities throughout the community.

Perris Valley Commerce Center Specific Plan

The intent of the Specific Plan is to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and business of the City of Perris.[55] The project site is zoned for light industrial use. This zone provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials, and retail related to manufacturing. The light industrial zone has a building intensity of 0.75 FAR and a maximum structure height limit of 50 feet. There are not standards or guidelines within the PVCCSP related to GHG emissions. However, each project within the PVCCSP area is required to incorporate applicable mitigation from the Specific Plan EIR. Many of the relevant Air Quality mitigation measures from the PVCCSP EIR outlined in Section 2.4.3 would also reduce GHG emissions.

Perris Climate Action Plan

The City of Perris adopted a CAP in February 2016 for the development and implementation of policies and programs to reduce GHG emissions within the City. The CAP is based on the directives of AB 32 and Executive Order S-3-05 and uses a GHG emission inventory from the year 2010 to establish the City's baseline emissions for the purposes of assessing future GHG reduction goals and forecasting GHG emissions in the future. The CAP stated that, by 2020, the Statewide and local measures together would reduce the City's community GHG emissions from the 2020 BAU condition by approximately 39 percent or 67,668 MT CO_2e (from 173,195 to 105,527 MT of CO_2e). This reduction is equivalent to 20 percent decrease below the 2010 levels, which exceeds the 15 percent reduction target of the year 2020.[56] The City's CAP presented the following strategies.

---

[55] City of Perris. 2022. Perris Valley Commerce Center Specific Plan Amendment No.12. January. Website: https://www.cityofperris.org/home/showpublisheddocument/2647/637749866972200000. Accessed June 24, 2022.

[56] City of Perris. 2016. Climate Action Plan. Website: https://www.cityofperris.org/Home/ShowDocument?id=12935. Accessed June 24, 2022.

GHG Reduction Measures

E1	Energy Action Plan. Improve municipal and community-wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAP).
T-1	Bicycle Infrastructure Improvements. Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.
T-2	Bicycle Parking. Provide additional options for bicycle parking.
T-3	End of Trip Facilities. Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.
T-4	Transit Frequency Expansion. Collaborate with local and regional transit providers to provide more frequent transit in the subregion.
T-5	Traffic Signal Coordination. Incorporate technology to synchronize and coordinate traffic signals along local arterials.
T-6	Density. Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.
T-7	Mixed-Use Development. Provide for a variety of development types and uses.
T-8	Design/Site Planning. Design neighborhoods and sites to reduce VMT.
T-9	Pedestrian-Only Areas. Encourage walking by providing pedestrian-only community areas.
T-10	Limit Parking Requirements for New Development. Reduce requirements f or vehicle parking in new development projects.
T-11	Voluntary Transportation Demand Management. Reduce demand for roadway travel through incentives for alternative modes of transportation and disincentives for driving.
T-12	Accelerated Bike Plan Implementation. Accelerate the implementation of all or specified components of a jurisdiction's adopted bike plan.
SW-1	Yard Waste Collection. Provide green waste collection bins community-wide.
SW-2	Food Scrap and Compostable Paper Diversion. Divert food and paper waste from landfills by implementing collection system.

Energy Reduction Measures

R1–State Energy Reduction Measures

R1-E1 **Renewable Portfolio Standard–Building Energy Use**

SB 1075 (2002) and SB 107 (2006) created the State's Renewable Portfolio Standard (RPS), with an initial goal of 20 percent renewable energy production by 2010. Executive Order 5-14-08 establishes a RPS target of 33 percent by the year 2020 and requires State agencies to take all appropriate actions to ensure the target is met.57 This increase in electricity production from renewable sources will reduce the GHG emissions from electricity usage by 14 percent by 2020.

R1-E2 and R1-E3 Assembly Bill 1109 Energy Efficiency Standards for Lighting (Residential And Commercial Indoor And Outdoor Lighting)

AB 1109 (2007) mandated that the CEC, on or before December 31, 2008, adopt energy efficiency standards for general purpose lighting. These regulations, combined with other State efforts, are structured to reduce Statewide electricity consumption in the following ways:

R1-E2 At least 50 percent reduction from 2007 levels for indoor residential lighting by 2018; and

R1-E3 At least 25 percent reduction from 2007 levels for indoor commercial and outdoor lighting by 2018.

R1-E4 **Electricity Energy Efficiency**

This measure captures the emission reductions for Perris that are associated with electricity energy efficiency activities included in ARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions. This measure includes the energy efficiency measures that ARB views as critical to meeting the Statewide 2020 target, and will result in additional emissions reductions beyond those already accounted for in California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the California Code of Regulations, hereafter referenced as "Title 24 Energy Efficiency Standards") of California's Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations; or "CALGreen").

By 2020, this requirement will reduce emissions in California by approximately 21.3 million MT CO_2e, representing 17.5 percent of emissions from all electricity in the State. This measure includes a range of action items to improve energy efficiency in the City.

[57] Office of the Governor. 2008. Executive Order S-14-08. Website: https://perma.cc/7S5K-MQT8. Accessed June 23, 2022.

R1-E5 Natural Gas Energy Efficiency

This measure captures the emission reductions associated with natural gas energy efficiency activities included in ARB's AB 32 Scoping Plan that are not attributed to other R1 or R2 reductions. By 2020, this requirement will reduce emissions in California by approximately 4.3 million MT CO_2e, representing 6.2 percent of emissions from all natural gas combustion in the State.

R1-E6 Increased Combined Heat and Power

This measure captures the reduction in building electricity emissions associated with the increase of combined heat and power (CHP) activities, as outlined in ARB's AB 32 Scoping Plan. The Scoping Plan suggests that increased CHP systems, which capture "waste heat" produced during power generation for local use, will offset 30,000 gigawatt hours (GWh) Statewide in 2020. Approaches to lowering market barriers include utility-provided incentive payments, a possible CHP portfolio standard, transmission and distribution support systems, or the use of feed-in tariffs. By 2020, this requirement will reduce emissions in California by approximately 6.7 million MT CO2e, representing 7.6 percent of emissions from all electricity in the State.

R2–Local Energy Reduction Measures

R2-E1 New Residential Energy Efficiency

Construction of new homes allows the opportunity to include energy efficient measures and lessen the impact of the new development on both energy demands and the community-wide GHG emissions.

R2-E2 New Commercial Energy Efficiency

Construction of new commercial buildings allows the opportunity to include energy efficient measures and lessen the impact of the new development on both energy demands and the community-wide GHG emissions.

R2-E3 Residential Renewable Energy

Construction of new homes allows the opportunity to include renewable energy production and lessen the impact of the new development on both energy demands and community-wide GHG emissions

R2-E4 Commercial Renewable Energy Requirements

This measure would provide an incentive for facilities to be equipped with "solar ready" features where feasible to facilitate future installation of solar energy systems. These features would include optimal solar orientation for buildings (south facing roof sloped at 20 degrees to 55 degrees from the horizontal), clear access on south sloped roofs, electrical conduit installed for solar electric system wiring, plumbing installed for solar hot water systems, and space provided for a solar hot water tank. Additional

R2-E5 Residential Energy Retrofits

By retrofitting existing homes with energy efficiency upgrades and renewable energy generation systems, homeowners can reduce their monthly energy bills while also reducing GHG emissions. In order to implement this strategy, the City would coordinate with local agencies such as SCE, SCG, WRCOG, and SCAG in order to educate homeowners about rebates and incentive programs available for energy upgrades and renewable energy installations.

R2-E6 Commercial Energy Retrofits

By retrofitting existing buildings with energy efficiency upgrades and renewable energy generation systems, business owners can reduce their monthly energy bills while also reducing GHG emissions. In order to implement this strategy, the City would coordinate with local agencies such as SCE, SCG, WRCOG, and SCAG in order to educate business owners about rebates and incentive programs available for energy upgrades and renewable energy installations

R3–Local Energy Reduction Measures

R3-E1 Regional Energy Planning Coordination

Implementation of the R1 and R2 energy measures is supported by coordination with SCE, SCG, SCAG, WRCOG, local non-profits, and other local agencies in the region to optimize energy efficiency and renewable resource development and usage. This allows for economies of scale and shared resources to more effectively implement these environmental enhancements.

R3-E2 Energy Efficient Development and Renewable Energy Deployment Facilitation and Streamlining

This measure encourages the City to identify and remove any regulatory and procedural barriers to the implementation of green building practices and the incorporation of renewable energy systems. This could include the updating of codes and zoning requirements and guidelines. This measure could be further enhanced by providing incentives for energy efficient projects such as priority in the reviewing, permitting, and inspection process. Additional incentives could include flexibility in building requirements such as height limits or setbacks in exchange for incorporating green building practices or renewable energy systems.

R3-E3 Energy Efficiency Training and Public Education

This measure provides public education and publicity about energy efficiency measures and reduction programs available within the City through a variety of methods, including newsletters, brochures, and the City's website. This measure would enhance existing programs by including rebates and incentives available for residences and businesses as well as providing training in green building materials, techniques, and practices for all plan review and building inspection staff.

R1–State Water Reduction Measures

R1-W1 Renewable Portfolio Standard (33 percent By 2020) Related to Water Supply and Conveyance

This measure would increase electricity production from eligible renewable power sources to 33 percent by 2020. A reduction in GHG emissions results from replacing natural gas-fired electricity production with zero GHG-emitting renewable sources of power. By 2020, this requirement will reduce emissions from electricity used for water supply and conveyance in California by approximately 21.3 million MT CO_2e, representing 15.2 percent of emissions from electricity generation (in State and imports).

R2–Local Water Reduction Measures

The following list of R2 water related measures are those measures that the City would implement in order to reduce emissions beyond the emissions reduction associated with the R1 State measures described above.

R2-W2 Water Conservation Strategies

The energy used to transport, treat, and deliver this imported water results in GHG emissions. In contrast, water derived from local sources does not need to be transported as far. By reducing water use, the City can reduce the amount of imported water and utilize more of the local sources.

R2-W3 Increased Recycled Water Use

Recycled, or reclaimed, water is water reused after wastewater treatment for non-portable uses instead of returning the water to the environment. Since less energy is required to provide reclaimed water, fewer GHG emissions are associated with reclaimed water use compared to the average California water supply use.

R3–Other Water Reduction Measures

R3-W1 Water Efficiency and Conservation Education

Under this measure, the City, in coordination with local water purveyors would continue to implement its public information and education program that promotes water conservation. The program could be expanded to include certification programs for irrigation designers, installers, and managers, as well as classes to promote the use of drought tolerant, native species, and xeriscaping. Xeriscaping refers to landscaping and gardening that reduces or eliminates the need for supplemental water from irrigation.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 4: MODELING PARAMETERS AND ASSUMPTIONS

4.1 - Model Selection and Guidance

Regional air pollutant emissions are composed of those on-site and off-site construction and operational emissions generated from all facets of the proposed project. Air pollutant emissions can be estimated by using emission factors and a level of activity. Emission factors represent the emission rate of a pollutant over a given time or activity, for example, grams of NO_X per vehicle mile traveled or grams of NO_X per horsepower hour of equipment operation. The activity factor is a measure of how active a piece of equipment is and can be represented as the amount of material processed, elapsed time that a piece of equipment is in operation, horsepower of a piece of equipment used, the amount of fuel consumed in a given amount of time, or VMT per day. The ARB has published emission factors for on-road mobile vehicles/trucks in the Emission Factor (EMFAC) mobile source emissions model and emission factors for off-road equipment and vehicles in the OFFROAD emissions model. An air emissions model (or calculator) combines the emission factors and the levels of activity and outputs the emissions for the various pieces of equipment.

The California Emissions Estimator Model (CalEEMod) was developed in cooperation with the SCAQMD and other air districts throughout the State. CalEEMod is designed as a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with construction and operation from a variety of land uses. The latest version of CalEEMod, Version 2022.1, was released in year 2022 as part of a coordinated development effort between the California Air Pollution Control Officers Association (CAPCOA) and California Air Districts.[58] Regional construction and operational emissions reported in this analysis were modeled using CalEEMod Version 2022.1.

4.2 - Air Pollutants and GHGs Assessed

4.2.1 - Criteria Pollutants Assessed

The following air pollutants are assessed in this analysis:

- Reactive organic gases (ROG)
- Nitrogen oxides (NO_X)
- Carbon monoxide (CO)
- Sulfur oxides (SO_X)
- Particulate matter less than 10 microns in diameter (PM_{10})
- Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)

[58] California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model Soft Release. Website: https://www.caleemod.com/. Accessed June 17, 2022.

Note that the proposed project would emit ozone precursors ROG and NO_X. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

The proposed project would emit ultrafine particles. However, there is currently no standard separate from the $PM_{2.5}$ standards for ultrafine particles and there is no accepted methodology to quantify or assess the significance of such particles.

4.2.2 - Toxic Air Containments Assessed

In this analysis, DPM would be assessed as $PM_{2.5}$ to evaluate the potential health risks resulting from the use of diesel trucks during the operation of the proposed project. Diesel exhaust is a complex mixture of thousands of particles and gases that is produced when an engine burns diesel fuel, and the health effects are presented in Section 2.2.3, Toxic Air Containments.

4.2.3 - Greenhouse Gases Assessed

This analysis is restricted to GHGs identified by AB 32, which include carbon dioxide, methane, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The project may emit GHGs that are not defined by AB 32. For example, the project may generate aerosols through emissions of DPM from the vehicles and trucks that would access the project site. Aerosols are short-lived particles, as they remain in the atmosphere for about one week. Black carbon is a component of aerosol. Studies have indicated that black carbon has a high global warming potential; however, the IPCC states that it has a low level of scientific certainty.[59]

Water vapor could be emitted from evaporated water used for landscaping, but this is not a significant impact because water vapor concentrations in the upper atmosphere are primarily due to climate feedbacks rather than emissions from project-related activities.

The proposed project would emit NO_x and VOCs, which are ozone precursors. Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere is relatively short-lived and can be reduced in the troposphere on a daily basis. Stratospheric ozone can be reduced through reactions with other pollutants.

Certain GHGs defined by AB 32 would not be emitted by the proposed project. Perfluorocarbons and sulfur hexafluoride are typically used in industrial applications, none of which would be used by the project. Therefore, it is not anticipated that the proposed project would emit perfluorocarbons or sulfur hexafluoride.

[59] Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller [eds.]). Website: https://www.ipcc.ch/report/ar4/wg1/. Accessed June 24, 2022.

4.3 - Modeling Assumptions

4.3.1 - Construction

Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and prevailing weather conditions. Construction emissions result from on-site and off-site activities. On-site emissions principally consist of exhaust emissions from the activity levels of heavy-duty construction equipment, motor vehicle operation, and fugitive dust (mainly PM_{10}) from disturbed soil. Additionally, paving operations and application of architectural coatings would release VOC emissions. Off-site emissions are caused by motor vehicle exhaust from delivery vehicles, worker traffic, and road dust (PM_{10} and $PM_{2.5}$).

Construction activities for activities occurring on the 7.5-acre project site would consist of demolition of existing structures and pavement, site preparation, grading, building construction, paving, and architectural coating of the inside and outside of the building. In addition, frontage improvements for approximately 1.48 acres would involve site preparation, grading, and paving. For each construction activity, the construction equipment operating hours and numbers represent the average equipment activity over the duration of the activity. A conceptual construction schedule is provided in Table 7 that presents the duration for each construction activity. Table 8 presents the number of assumed construction equipment along with hours of operation per day, horsepower, and load factor. Where project-specific information was not available or unknown, default assumptions were used to complete emissions modeling. Where the CalEEMod default schedule was compressed to match applicant provided information, the construction equipment usage was increased proportionally to retain the CalEEMod default horsepower (hp) hours (see Appendix A). The activity for construction equipment is based on the horsepower and load factors of the equipment. In general, the horsepower is the power of an engine—the greater the horsepower, the greater the power. The load factor is the average power of a given piece of equipment while in operation compared with its maximum rated horsepower. A load factor of 1.0 indicates that a piece of equipment continually operates at its maximum operating capacity. This analysis uses the CalEEMod default load factors for off-road equipment.

The anticipated construction schedule, as shown in Table 7, reflects the construction start date and construction phase durations assumed for the purposes of this environmental analysis. Based on applicant provided information, construction would be completed in one phase, beginning in September 2022. The project is expected to be operational in the second quarter of 2023, which is assumed to be before June 2023. The construction schedule used in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases due to improvements in technology and compliance with more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by the CEQA Guidelines.

Table 7: Construction Schedule

Construction Activity	Conceptual Construction Schedule		Working Days per Week	Working Days
	Start Date	End Date		
Project Site Construction				
Demolition	9/1/2022	9/28/2022	5	20
Site Preparation	9/29/2022	10/12/2022	5	10
Grading	10/13/2022	11/9/2022	5	20
Building Construction	11/10/2022	6/30/2023	5	167
Paving	6/1/2022	6/28/2023	5	20
Architectural Coating	6/1/2023	6/28/2023	5	20
Frontage Improvements				
Site Preparation	9/29/2022	10/12/2022	5	10
Grading	10/13/2022	11/9/2022	5	20
Paving	11/10/2022	12/7/2022	5	20
Architectural Coating	12/8/2022	1/4/2023	5	20
Source: CalEEMod Output (Appendix A).				

A summary of the on-site, off-road construction equipment usage assumptions used to estimate emissions is presented in Table 8. The building construction phase is shortened compared with the CalEEMod default schedule, and the equipment numbers or usage hours are therefore increased to have the same horsepower hours with that of the default CalEEMod equipment usage. The usage adjustment is included in the appendix.

Table 8: Project Construction Equipment Assumptions

Construction Activity	Equipment	Equipment Amount	Average Hours per Day	Horsep ower	Load Factor
Project Site Construction					
Demolition	Concrete/Industrial Saws	1	8	33	0.73
	Excavators	3	8	36	0.38
	Rubber Tired Bulldozers	2	8	367	0.4
Site Preparation	Rubber Tired Bulldozers	3	8	367	0.4
	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Excavators	1	8	36	0.38
	Graders	1	8	148	0.41
	Rubber Tired Bulldozers	1	8	367	0.4

Construction Activity	Equipment	Equipment Amount	Average Hours per Day	Horsepower	Load Factor
	Tractors/Loaders/Backhoes	3	8	84	0.37
Building Construction	Cranes	1	9.2	367	0.29
	Forklifts	4	7.9	82	0.2
	Generator Sets	1	10.5	14	0.74
	Tractors/Loaders/Backhoes	3	9.2	84	0.37
	Welders	1	10.5	46	0.45
Paving	Pavers	2	8	81	0.42
	Paving Equipment	2	8	89	0.36
	Rollers	2	8	36	0.38
Architectural Coating	Air Compressors	1	6	37	0.48
Frontage Improvements					
Site Preparation	Rubber Tired Bulldozers	1	7	367	0.40
	Tractors/Loaders/Backhoes	1	8	84	0.37
	Graders	1	8	148	0.41
Grading	Excavators	1	8	36	0.38
	Graders	1	8	148	0.41
	Rubber Tired Bulldozers	1	8	367	0.40
	Tractors/Loaders/Backhoes	2	7	84	0.37
Paving	Pavers	1	6	81	0.42
	Paving Equipment	1	8	89	0.36
	Rollers	1	7	36	0.38
	Cement and Mortar Mixers	1	6	10	0.56
	Tractors/Loaders/Backhoes	1	8	84	0.37
Architectural Coating	Air Compressors	1	6	37	0.48
Source: CalEEMod Output (Appendix A).					

A summary of the construction-related vehicle trips is shown in Table 9. Based on project applicant provided information, during site preparation and grading would require up to 6,600 net cubic yards of fill to be imported; remaining on-site cut and fill would balance on-site. CalEEMod default values for trip lengths and vehicle fleets were used. Note that the total number of off-site construction vehicle trips would not necessarily occur on the same day since construction activities would vary each day during the construction period.

Table 9: Construction Off-site Trips

Construction Activity	Worker (Trips per day)	Vendor (Trips per day)	Haul (Trips per Day)
Main Site Construction			
Demolition	15	0	64
Site Preparation	18	0	83
Grading	15	0	0
Building Construction	69	27	0
Paving	15	0	0
Architectural Coating	14	0	0
Frontage Improvements			
Site Preparation	8	0	0
Grading	13	0	0
Paving	13	0	0
Architectural Coating	0	0	0
Source: CalEEMod Output (Appendix A).			

Fugitive Dust

During grading activities, fugitive dust can be generated from the movement of dirt on the project site. CalEEMod estimates dust from bulldozers moving dirt around, dust from graders or scrapers leveling the land, and loading or unloading dirt into haul trucks. Every project within the SCAQMD's jurisdiction is required to comply with the requirements of SCAQMD Rule 403 (Fugitive Dust). SCAQMD Rule 403 requires fugitive dust generating activities follow Best Available Control Measures to reduce emissions of fugitive dust. As shown in Table 10, per SCAQMD guidance, the Rule 403 measures are accounted for in CalEEMod through selection of the appropriate mitigation measures in CalEEMod. Development of the proposed project would include design features which would reduce fugitive dust compared to default values. Note that CalEEMod nominally treats these design elements and conditions as "mitigation measures" despite their inclusion in the project description.

Table 10: Best Available Control Measures

Best Available Control Measure	Associated Measure in CalEEMod
Clearing and Grubbing	
02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing. 02-2 Stabilize soil during clearing and grubbing activities. 02-3 Stabilize soil immediately after clearing and grubbing activities.	Water exposed surfaces two times per day

Best Available Control Measure	Associated Measure in CalEEMod
Earthmoving Activities	
08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earthmoving activities are complete	Water exposed surfaces two times per day
Import/Export of Bulk Materials	
09-1 Stabilize material while loading to reduce fugitive dust emissions. 09-3 Stabilize material while transporting to reduce fugitive dust emissions. 09-4 Stabilize material while unloading to reduce fugitive dust emissions.	Water exposed surfaces two times per day
Landscaping	
10-1 Stabilize soils, materials, slopes	Water exposed surfaces two times per day
Staging Areas	
13-1 Stabilize staging areas during use by limiting vehicle speeds to 15 mph.	Reduce speed on unpaved roads to 15 mph
Traffic Areas for Construction Activities	
15-1 Stabilize all off-road traffic and parking areas.	Water exposed surfaces two times per day
Source of Best Available Control Measures: South Coast Air Quality Management District (SCAQMD). 2005. Rule 403—Fugitive Dust. Amended June 3, 2005. Website: https://www.aqmd.gov/home/rules-compliance/compliance/rule-403-dust-control-information. Accessed June 17, 2022. Source of associated CalEEMod measures: CalEEMod Output (Appendix A).	

4.3.2 - Operation

The major sources of operational emissions that would occur over the long-term operations of the project are summarized below.

Motor Vehicles

Motor vehicle emissions refer to exhaust and road dust emissions from the motor vehicles that would travel to and from and within the project site. The regional emissions from the project's mobile sources were estimated using CalEEMod. The proposed project would primarily generate passenger vehicle trips from employees and visitors traveling to and from the project site; however, the proposed project would also be served with daily van and truck deliveries. An estimate of the number of vehicle trips that the proposed project would generate was presented in the Traffic Memorandum, as shown in Table 11.

Table 11: Vehicle Trip Generation During Operations (Daily)

Vehicle Type	PCE	Actual
Passenger Cars	184	184
Trucks	257	102
Total Project Trips	**441**	**286**

Notes:
PCE = Passenger Car Equivalent
Truck fleet mix includes 18 2-axle trucks, 22 3-axle trucks, and 62 4-or-plus-axle trucks.
Source: Urban Crossroad. 2022. Ramona Expressway and Brennan Warehouse Vehicle Miles Traveled Screening Evaluation. April.

The trip summary shown in Table 11 includes trips from both passenger vehicles and trucks. The Traffic Memorandum reports that trips from passenger cars would account for 184 passenger car trips and 102 truck trips.

Industrial land use projects, including warehouse projects, can be expected to have longer than average truck trip lengths compared to the default trip length in CalEEMod (6.2 miles to 22.3 miles for the SoCAB portion of Riverside County). To estimate mobile source emissions from trucks during project operations, a one-way truck trip length of 78 miles was assumed based on the distance between the Port of Long Beach and the project site. The CalEEMod fleet mix is adjusted based on the number of trucks and passenger cars from Traffic Memorandum. The number of daily operational vehicle trips used to estimate emissions were the estimated daily trips presented in Table 11, with a fleet mix of 18 two-axle trucks, 22 three-axle trucks, and 62 four-or-plus axle trucks, as contained in the Traffic Memorandum.[60]

Emission factors are assigned to the expected vehicle mix as a function of vehicle age, vehicle class, speed, and fuel type. The overall operational fleet mix used to assess emissions from the proposed project is shown below in Table 12.

Table 12: Vehicle Type Classification—Project Operational Fleet Mix

Vehicle Type	Classification	Fleet Mix Applied in the Modeling
Passenger Vehicles	LDA	55.5%
	LDT1	4.6%
	LDT2	21.6%
	MDV	18.2%
	Passenger Vehicle Fleet Mix	*100%*
Trucks	LHD1	13.8%
	LHD2	3.9%

60 Urban Crossroad. 2022. Ramona Expressway and Brennan Warehouse Vehicle Miles Traveled Screening Evaluation. April.

Vehicle Type	Classification	Fleet Mix Applied in the Modeling
	MHD	21.6%
	HHD	60.8%
	Truck Fleet Mix	*100%*

Notes:
HHDT = Heavy Heavy-Duty Truck
LDA = Light-Duty Auto
LDT = Light-Duty Truck
MDV = Medium-Duty Vehicle
Source: Traffic Memorandum. CalEEMod Output (Appendix A).

Other Emission Sources

Area Sources

In addition to typical mobile- and energy-source emissions, long-term operational emissions also include area-source emissions. Area-source emissions include occasional architectural coating activities for repainting and maintenance of the warehouse building associated with the proposed project. CalEEMod assumes that repainting occurs at a rate of 10 percent of the buildings per year. Therefore, on average, it is assumed that the building would be fully repainted every 10 years.

Other area-source emissions include consumer products that involve solvents that emit VOCs during use. CalEEMod includes default consumer product use rates based on building square footage. The default emission factors developed for CalEEMod were used for consumer products associated with parking uses. Lastly, CalEEMod default emission factors for landscape maintenance equipment were used in this analysis.

Indirect Emissions

For GHG emissions, CalEEMod contains calculations to estimate indirect GHG emissions. Indirect emissions are emissions where the location of consumption or activity is different from where actual emissions are generated. For example, electricity would be consumed at the proposed project site; however, emissions associated with producing that electricity are generated off-site at a power plant.

CalEEMod includes calculations for indirect GHG emissions for electricity consumption, water consumption, and solid waste disposal. For water consumption, CalEEMod calculates embedded energy (e.g., treatment, conveyance, distribution) associated with providing each gallon of potable water to the project site. For solid waste disposal, CalEEMod calculates GHG emissions generated as solid waste generated by the proposed project decomposes in a landfill.

For electricity-related emissions, CalEEMod contains default electricity intensity factors for various utilities throughout California. The reported factors in 2019 applied in this analysis include: CO_2 (531.983 lb/MWh), CH_4 (0.033 lb/MWh), and N_2O (0.004 lb/MWh).[61]

Refrigerants

During operation, there may be leakages of refrigerants (hydrofluorocarbons) from air conditioners and any refrigeration systems. Hydrofluorocarbons are typically used for refrigerants, which are long-lived GHGs. In CalEEMod Version 2022.1, refrigerants are estimated for various land uses, which, in this analysis, include but are not limited to, vehicle air condition systems, warehouse air conditioning systems, and refrigerators in the proposed warehouse offices.

Vegetation

The project site is currently occupied by a pallet supplier but has no active operation. The project site has a small amount of vegetation. Therefore, there is currently some carbon sequestration occurring on-site. The project applicant proposes to plant trees and integrate landscaping into the project design, which would provide carbon sequestration. However, the number of trees to be planted is unknown and data are insufficient to accurately determine the impact that the existing landscaping has on carbon sequestration. For this analysis, it was assumed that the loss and addition of carbon sequestration that are due to the proposed project would be balanced; therefore, emissions due to carbon sequestration were not included.

Stationary Sources

Based on the information provided by the project applicant, the proposed project would include one stationary source in the form of a fire pump. The fire pump is presumably for fire protection purposes. To present a conservative estimate of emissions, the fire pump is assumed to be 100 horsepower and tested every month, which totals 20 hours per year.[62]

[61] California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model Soft Release. Website: https://www.caleemod.com/. Accessed June 17, 2022.
[62] National Fire Protection Association (NFPA). 2022. Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems. Website: https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=25. Accessed June 17, 2022.

SECTION 5: AIR QUALITY IMPACT ANALYSIS

This section calculates expected emissions from project construction and operation as a necessary requisite for assessing the regulatory significance of project emissions on a regional and local level. The methodology follows the SCAQMD CEQA and Federal Conformity Guidelines, which set forth recommended thresholds of significance and analysis methodologies and provides guidance on mitigating significant impacts.

5.1 - CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on air quality, the type, level, and impact of emissions generated by the proposed project must be evaluated.

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the lead agency finds that the proposed project has the potential to exceed these air pollution thresholds, the proposed project would be considered to have significant air quality impacts.

5.1.1 - Thresholds of Significance

This analysis uses the air quality significance thresholds contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the proposed project would:

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 nonattainment under an applicable federal or State ambient air quality standard.
c) Expose sensitive receptors to substantial pollutant concentrations.
d) Create objectionable odors affecting a substantial number of people.

While the final determination of whether a project is significant is within the purview of the lead agency pursuant to Section 15064(b) of the CEQA Guidelines, the SCAQMD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If a lead agency finds that a proposed project has the potential to exceed these air pollution thresholds, the proposed project should be considered to have significant air quality impacts. The applicable SCAQMD thresholds and methodologies are contained under each impact statement below.

5.2 - Impact Analysis

5.2.1 - Consistency with Air Quality Management Plan

Impact AIR-1: **The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.**

Impact Analysis

A potentially significant impact to air quality would occur if the project would conflict with or obstruct implementation of the applicable air quality plan. The project is located within the jurisdiction of the SCAQMD. The SCAQMD is responsible for preparing air quality attainment plans to be transmitted to the ARB and the EPA for incorporation into the SIP. SCAQMD has designated this area as extreme nonattainment for ozone and serious nonattainment for $PM_{2.5}$.[63] To evaluate whether or not a project conflicts with or obstructs implementation of the applicable air quality plan (2016 AQMP for SoCAB), the SCAQMD CEQA Air Quality Handbook states that there are two key indicators. These indicators are identified by the criteria discussed below.

- **Indicator:** Whether the proposed project will not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- **Indicator:** According to Chapter 12 of the SCAQMD CEQA Air Quality Handbook, the purpose of the General Plan consistency findings is to determine whether a proposed project is inconsistent with the growth assumptions incorporated into the air quality plan and, thus, whether it would interfere with the region's ability to comply with federal and California air quality standards.

Considering the recommended criteria in the SCAQMD's 1993 Handbook, this analysis uses the following criteria to address this potential impact:

- **Criterion 1:** Proposed project's contribution to air quality violations (SCAQMD's first indictor);
- **Criterion 2:** Assumptions in AQMP (SCAQMD's second indictor); and
- **Criterion 3:** Compliance with applicable emission control measures in the AQMPs.

Criterion 1: Project's Contribution to Air Quality Violations

According to the SCAQMD, the project is consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.[64]

If a project's emissions do not exceed the SCAQMD regional thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$, it follows that the project's emissions would not exceed the allowable limit for each project

63 South Coast Air Quality Management District (SCAQMD). Air Quality Management Plan. Website: http://www.aqmd.gov/home/air-quality/clean-air-plans. Accessed June 24, 2022.
64 South Coast Air Quality Management District (SCAQMD). 1993. CEQA Handbook. Available at SCAQMD, 21865 Copley Drive, Diamond Bar, CA 91765.

in order for the region to attain and maintain ambient air quality standards, which is the primary goal of air quality plans. As shown in Impact AIR-2, the proposed project would not exceed the SCAQMD's regional thresholds of significance during construction nor operation. Furthermore, the mitigation measures shown in Impact AIR-2 would ensure this impact to be less than significant.

Criterion 2: Assumptions in AQMP

The development of emission burdens used in AQMPs to demonstrate compliance with ambient air quality standards is based, in part, on land use patterns contained within local general plans. Therefore, it is reasonable to conclude that if a project is consistent with the applicable general plan land use designation, and the general plan was adopted prior to the applicable AQMP, then the growth of VMT and/or population generated by said project would be consistent with growth in VMT and population assumed within the AQMP.

The proposed project is subject to the PVCCSP, which intends to provide high quality industrial, commercial, and office land uses to serve the existing and future residents and business of the City of Perris.[65] The PVCCSP EIR (PVCCSP EIR) was adopted in 2011, which is before the adoption of the SCAQMD's 2016 AQMP. The proposed project would include construction and development of an industrial warehouse building. The proposed project site is zoned Light Industrial, which allows for land uses such as light industrial and warehouses. Therefore, it is reasonable to anticipate that the proposed project's VMT, service population, and/or sources of air pollutants would have been analyzed in the 2016 AQMP. With this consideration, the proposed project would not exceed the growth assumptions in the AQMP.

Criterion 3: Control Measures

The AQMP contains several control measures which are enforceable requirements through the adoption of rules and regulations. SCAQMD rules and regulations relevant to the proposed project are described in Section 2.4.2. The proposed project would comply with all applicable SCAQMD rules and regulations. Because of the nature of the proposed project, which includes earthmoving activity, SCAQMD Rule 403 applies. As previously mentioned, Rule 403 governs emissions of fugitive dust during construction and operation activities. The rule requires that fugitive dust be controlled with Best Available Control Measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Compliance with this rule is achieved through application of standard BMPs. These BMPs include application of water or chemical stabilizers to disturbed soils; covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 mph; sweeping loose dirt from paved site access roadways; cessation of construction activity when winds exceed 25 mph; and establishing a permanent ground cover on finished sites. The proposed project's compliance with all applicable SCAQMD rules and regulations would result in consistency with the applicable AQMP control measures. Additionally, the proposed project would be required to comply with all minimum requirements to reduce man-made fugitive dust as described in Section 19.44.070. of the City's Municipal Code.

---

65 City of Perris. 2011. Perris Valley Commerce Center Specific Plan Final Environmental Impact Report. Website: https://www.cityofperris.org/departments/development-services/specific-plans. Accessed June 24, 2022.

Summary

In summary, the proposed project would not exceed the growth assumptions in the AQMP. The proposed project would not result in a regional exceedance of criteria air pollutants. Furthermore, the proposed project would comply with all applicable SCAQMD rules and regulations. Therefore, this impact would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

MM Air-2 Each individual implementing development project shall submit a traffic control plan prior to the issuance of a grading permit. The traffic control plan shall describe in detail safe detours and provide temporary traffic control during construction activities for that project. To reduce traffic congestion, the plan shall include, as necessary, appropriate, and practicable, the following: temporary traffic controls such as a flag person during all phases of construction to maintain smooth traffic flow, dedicated turn lanes for movement of construction trucks and equipment on- and off-site, scheduling of construction activities that affect traffic flow on the arterial system to off peak-hour, consolidating truck deliveries, rerouting of construction trucks away from congested streets or sensitive receptors, and/or signal synchronization to improve traffic flow.

MM Air-3 To reduce fugitive dust emissions, the development of each individual implementing development project shall comply with SCAQMD Rule 403. The developer of each implementing project shall provide the City of Perris with the SCAQMD-approved dust control plan, or other sufficient proof of compliance with Rule 403, prior to grading permit issuance. Dust control measures shall include, but are not limited to:

- requiring the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 20 days or more, assuming no rain),
- keeping disturbed/loose soil moist at all times,
- requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered,
- installation of wheel washers or gravel construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip,
- posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved potions of the project site,
- suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour,

- appointment of a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM-10 generation,
- sweeping streets at the end of the day if visible soil material is carried onto adjacent paved public roads and use of SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks when sweeping streets to remove visible soil materials,
- replacement of ground cover in disturbed areas as quickly as possible.

MM Air-4 Building and grading permits shall include a restriction that limits idling of construction equipment on-site to no more than 5 minutes.

MM Air-5 Electricity from power poles shall be used instead of temporary diesel or gasoline-powered generators to reduce the associated emissions. Approval will be required by the City of Perris' Building Division prior to issuance of grading permits.

MM Air-6 The developer of each implementing development project shall require, by contract specifications, the use of alternative fueled off-road construction equipment, the use of construction equipment that demonstrates early compliance with off-road equipment with the ARB in-use off-road diesel vehicle regulation (SCAQMD Rule 2449) and/or meets or exceeds Tier 3 standards with available ARB verified or US EPA certified technologies. Diesel equipment shall use water emulsified diesel fuel such as PuriNOx unless it is unavailable in Riverside County at the time of project construction activities. Contract specifications shall be included in project construction documents, which shall be reviewed by the City of Perris' Building Division prior to issuance of a grading permit.

MM Air-7 During construction, ozone precursor emissions from mobile construction equipment shall be controlled by maintaining equipment engines in good condition and in proper tune per manufacturers' specifications to the satisfaction of the City of Perris' Building Division. Equipment maintenance records and equipment design specification data sheets shall be kept on-site during construction. Compliance with this measure shall be subject to periodic inspections by the City of Perris' Building Division.

MM Air-8 Each individual implementing development project shall apply paints using either high volume low pressure (HVLP) spray equipment with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

MM Air-9 To reduce VOC emissions associated with architectural coating, the project designer and contractor shall reduce the use of paints and solvents by utilizing pre-coated materials (e.g., bathroom stall dividers, metal awnings), materials that do not require painting, and require coatings and solvents with a VOC content lower than required under Rule 1113 to be utilized. The construction contractor shall be required to utilize "Super-Compliant" VOC paints, which are defined in SCAQMD's Rule 1113. Construction specifications shall be included in building specifications that assure these requirements are implemented. The specifications for each implementing development project shall be reviewed by the City of Perris' Building Division for compliance with this mitigation measure prior to issuance of a building permit for that project.

MM Air-11 Signage shall be posted at loading docks and all entrances to loading areas prohibiting all on-site truck idling in excess of 5 minutes.

MM Air-12 Where Transport Refrigeration Units (TRUs) are in use, electrical hookups will be installed at all loading and unloading stalls in order to allow TRUs with electric standby capabilities to use them.

MM Air-13 In order to promote alternative fuels, and help support "clean" truck fleets, the developer/successor-in-interest shall provide building occupants and businesses with information related to SCAQMD's Carl Moyer Program, or other State programs that restrict operations to "clean" trucks, such as 2007 or newer model year or 2010 compliant vehicles and information including, but not limited to, the health effect of diesel particulates, benefits of reduced idling time, ARB regulations, and importance of not parking in residential areas. If trucks older than 2007 model year will be used at a facility with three or more dock-high doors, the developer/ successor-in-interest shall require, within one year of signing a lease, future tenants to apply in good-faith for funding for diesel truck replacement/retrofit through grant programs such as the Carl Moyer, Prop 1B, VIP, HVIP, and SOON funding programs, as identified on SCAQMD's website (http://www.aqmd.gov). Tenants will be required to use those funds, if awarded.

MM Air-14 Each implementing development project shall designate parking spaces for high-occupancy vehicles and provide larger parking spaces to accommodate vans used for ride sharing. Proof of compliance will be required prior to the issuance of occupancy permits.

MM Air-19 In order to reduce energy consumption from the individual implementing development projects, applicable plans (e.g., electrical plans, improvement maps) submitted to the City shall include the installation of energy-efficient street lighting throughout the project site. These plans shall be reviewed and approved by the applicable City Department (e.g., City of Perris' Building Division) prior to conveyance of applicable streets.

MM Air-20 Each implementing development project shall be encouraged to implement, at a minimum, an increase in each building's energy efficiency 15 percent beyond Title 24, and reduce indoor water use by 25 percent. All requirements will be documented through a checklist to be submitted prior to issuance of building permits for the implementing development project with building plans and calculations.

Project-specific Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

5.2.2 - Cumulative Impacts

Impact AIR-2: **The proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality (including releasing emissions which exceed quantitative thresholds for ozone precursors).**

Impact Analysis

This impact is related to the cumulative effect of a project's regional criteria pollutant emissions. As described above, the region is currently nonattainment for ozone, PM_{10}, and $PM_{2.5}$. By its nature, air pollution is largely a cumulative impact resulting from emissions generated over a large geographic region. The nonattainment status of regional pollutants is a result of past and present development within the air basin, and this regional impact is a cumulative impact. In other words, new development projects (such as the proposed project) within the air basin would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. All new development that would result in an increase in air pollutant emissions above those assumed in regional air quality plans would contribute to cumulative air quality impacts.

The cumulative analysis focuses on whether a specific project would result in cumulatively considerable emissions. According to Section 15064(h)(4) of the State CEQA Guidelines, the existence of significant cumulative impacts caused by other projects alone does not constitute substantial evidence that the project's incremental effects would be cumulatively considerable.

Rather, the determination of cumulative air quality impacts for construction and operational emissions is based on whether the project would result in regional emissions that exceed the SCAQMD regional thresholds of significance for construction and operations on a project level. Projects that generate emissions below the SCAQMD significance thresholds would be considered consistent with regional air quality planning efforts would not generate cumulatively considerable emissions.

The proposed project's regional construction and operational emissions, which include both on- and off-site emissions, are evaluated separately below. Construction and operational emissions from the proposed project were estimated using CalEEMod Version 2022.1. A detailed description of the assumptions used to estimate emissions and the complete CalEEMod output files are contained in Appendix A.

Cumulative Construction Emissions

Construction emissions are described as "short-term" or temporary in duration; however, they have the potential to represent a significant impact with respect to air quality. Construction of the proposed project would result in the temporary generation of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions from construction activities such as site preparation, grading, building construction, architectural coating, and asphalt paving. Fugitive dust emissions are primarily associated with earth disturbance and grading activities and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles on-site and off-site. Construction-related NO_X emissions are primarily generated by exhaust emissions from heavy-duty construction equipment, material and haul trucks, and construction worker vehicles. VOC emissions are mainly generated by exhaust emissions from construction vehicles, off-gas emissions associated with architectural coatings, and asphalt paving.

The proposed project is expected to be operational in the second quarter of 2023. The project construction is assumed to be completed in one phase, beginning in September 2022 and concluding in June 2023. The anticipated construction schedule reflects the construction start date and the construction phase durations estimated by the project applicant. The construction schedule used in the analysis represents a reasonable worst-case analysis scenario since a delay in construction dates into the future would result in using emission factors for construction equipment that decrease as the analysis year increases, due to improvements in technology and the need to meet more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moved to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required by CEQA Guidelines. For a more detailed description of the construction emissions modeling parameters and assumptions, please refer to Section 4-Modeling Parameters and Assumptions.

Table 13 presents the proposed project's maximum daily construction emissions during the entire construction duration using the worst-case summer or winter daily construction-related criteria pollutant emissions for each phase of construction. Complete CalEEMod output files are included as part of Appendix A.

Table 13: Unmitigated Construction–Maximum Daily Emissions by Construction Year

Construction Year	Regional Pollutant Emissions (pounds per day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Project Site Construction 2022	4.46	52.3	40.3	0.09	11.5	6.35
Frontage Improvements 2022	1.71	16.8	14.8	0.02	3.35	1.94

Construction Year	Regional Pollutant Emissions (pounds per day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 2022 Total	6.17	69.1	55.1	0.11	14.85	8.29
Project Site Construction 2023	20.5	26	37.7	0.05	2.7	1.46
Frontage Improvements 2023	0	0	0	0	0	0
Year 2023 Total	20.5	26	37.7	0.05	2.7	1.46
Winter						
Project Site Construction 2022	4.45	52.6	39.9	0.09	11.5	6.35
Frontage Improvements 2022	2.1	20.4	18.7	0.02	3.9	2.27
Year 2022 Total	6.55	73	58.6	0.11	15.4	8.62
Project Site Construction 2023	2.03	17	22.4	0.04	1.87	0.96
Frontage Improvements 2023	1.87	0.93	1.15	0	0.04	0.03
Year 2023 Total	3.9	17.93	23.55	0.04	1.91	0.99
Maximum Daily Emissions[1]	**20.5**	**73**	**58.6**	**0.11**	**15.4**	**8.62**
Year	2023	2022	2022	2022	2022	2022
Season	Summer	Winter	Winter	Same	Winter	Winter
SCAQMD Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SO_X = sulfur oxides
VOC = volatile organic compound
[1] Assumes overlap of construction activities based on schedule presented in Appendix A.
The PM_{10} and $PM_{2.5}$ emissions reflect the combined exhaust and mitigated fugitive dust emissions in accordance with SCAQMD Rule 403.
Source of Table: Appendix A.

As shown in above in Table 13, the proposed project's construction emissions would not exceed the applicable significance threshold for any of the pollutants. In addition, the proposed project would be subject to PVCCSP EIR mitigation measures MM Air 2 through MM Air 9, which would further reduce construction emissions.

Therefore, the proposed project would have a less than significant impact related to regional air quality during project construction.

Cumulative Operational Emissions

Following project construction, long-term operational emissions would be generated, resulting from daily operations. Operational emissions for land use development projects are typically distinguished as mobile-, area-, and energy-source emissions. Mobile source emissions are those associated with automobiles that would travel to and from the project site. Assumptions used to estimate mobile source emissions that would be generated by the proposed project were consistent with those presented in the project-specific traffic study. The proposed project was estimated to generate 184 average daily passenger vehicle trips and 102 average daily truck trips during the operational period. Area-source emissions are those associated with natural gas combustion for space and water heating, landscape maintenance activities, and periodic architectural coatings. Energy-source emissions are those associated with electricity consumption and are more pertinent for GHG emissions than air quality pollutants. Stationary source emissions are from a fire pump based on the information provided by the project applicant. The fire pump was assumed to be 100 horsepower and tested every month, for a total of 20 hours of use per year. Table 14 presents the project's maximum daily operational emissions.

Table 14: Maximum Daily Operational Regional Pollutants

Operational Activity	Regional Pollutant Emissions (pounds per day)[1]					
	VOC	NO_X	CO	SO_X	PM_{10} (Total)	$PM_{2.5}$ (Total)
Summer Area	4.82	0.06	7.19	< 0.005	0.01	0.01
Summer Energy	0.04	0.67	0.57	< 0.005	0.05	0.05
Summer Mobile	2.02	20.70	11.60	0.20	3.80	1.09
Summer Stationary (Fire Pump)	0.02	0.05	0.06	< 0.005	< 0.005	< 0.005
Total Summer Emissions	**6.90**	**21.48**	**19.42**	**0.20**	**3.86**	**1.15**
Winter Area	3.64	–	–	–	–	–
Winter Energy	0.04	0.67	0.57	< 0.005	0.05	0.05
Winter Mobile	1.97	21.60	10.20	0.20	3.80	1.09
Winter Stationary (Fire Pump)	0.02	0.05	0.06	< 0.005	< 0.005	< 0.005
Total Winter Emissions	**5.67**	**22.32**	**10.83**	**0.20**	**3.85**	**1.14**
Overall Maximum Daily	**6.90**	**22.32**	**19.42**	**0.20**	**3.86**	**1.15**
Season	Summer	Winter	Summer	Same	Summer	Summer
SCAQMD Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SO_X = sulfur oxides
VOC = volatile organic compound
[1] Emissions shown represent the maximum daily emissions from summer and winter seasons for each operational emission source and pollutant. Therefore, total daily operational emissions represent maximum daily emissions that could occur throughout the year.
Source of Table: Appendix A.

As shown in Table 14, the project's regional daily operational emissions would not exceed any of the SCAQMD thresholds of significance. Therefore, the proposed project would have less than significant impact related to regional air quality during project operation. The proposed project would also be subject to PVCCSP EIR mitigation measures MM Air-11 through MM Air-14, MM Air-19, and MM Air-20, which would further reduce operational emissions.

In addition, on May 7, 2021, the Governing Board of the SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule. Under this rule, the owners and operators of warehouses greater than 100,000 square feet are required to directly reduce NO_X and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities. The warehouse rule is a menu-based points system requiring warehouse operators to annually earn a specified number of points. These points can be earned by completing actions from a menu that can include acquiring and using natural gas, Near-Zero Emissions and/or Zero-Emissions on-road trucks, zero-emission cargo handling equipment, solar panels or zero-emission charging and fueling infrastructure, or other options. The SCAQMD expects this rule to reduce emissions from warehouse uses by 10-15 percent. Once constructed, the proposed warehouse would be subject to this rule, thus further reducing the emissions of the proposed project.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

Implement PVCCSP mitigation measures listed in Impact AIR-1 (PVCCSP mitigation measure MM Air-2 through PVCCSP mitigation measure MM Air-9; PVCCSP mitigation measure MM Air-11 through PVCCSP mitigation measure MM Air-14 and PVCCSP mitigation measure MM Air-19 through PVCCSP mitigation measure MM Air-20).

Project-specific Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

5.2.3 - Sensitive Receptors

Impact AIR-3:	**The proposed project would not expose sensitive receptors to substantial pollutant concentrations.**

Impact Analysis

This impact evaluates the potential for the proposed project's construction and operational emissions to expose sensitive receptors to substantial pollutant concentration. Sensitive receptors are defined as those individuals who are sensitive to air pollution, including children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities.[66] Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO_2 and CO), commercial and/or industrial facilities would be considered sensitive receptors. For the proposed project, the closest off-site sensitive receptor is a single-family home located approximately 470 feet north of the project site.

To result in a less than significant impact, the following criteria must be true:

- **Criterion 1:** Localized significance threshold (LST) assessment: emissions and air quality impacts during project construction or operation must be below the applicable LSTs to screen out of needing to provide a more detailed air quality analysis. If the proposed project exceeds any applicable LST when the mass rate lookup tables are used as a screening analysis, then project-specific air quality modeling may be performed to determine significance.
- **Criterion 2:** A CO hotspot assessment must demonstrate that the proposed project would not result in the development of a CO hotspot that would result in an exceedance of the CO ambient air quality standards.
- **Criterion 3:** TAC analysis must demonstrate that TAC emissions from construction and operations of the proposed project would not result in significant health risk impacts to existing or proposed sensitive receptors.

Criterion 1: Localized Significance Threshold Analysis—Criteria Pollutants

The localized construction and operational analyses use thresholds (i.e., LSTs) that represent maximum emissions for a project that would not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard.[67] If the proposed project's construction or operational emissions are under those thresholds, it follows that the project would not cause or contribute to an exceedance of the standard and would not expose sensitive receptors to substantial pollutant concentrations.

Localized Construction Analysis

The LST Methodology only applies to on-site emissions and states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the construction LST analysis, only on-site emissions were compared with the applicable LSTs.

Utilizing the construction equipment list and associated acreages per 8-hour day provided in the SCAQMD "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds," the maximum

[66] South Coast Air Quality Management District (SCAQMD). 2008. Final Localized Significance Threshold Methodology. Revised July 2008. Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed June 24, 2022.

[67] South Coast Air Quality Management District (SCAQMD). 2009. Final Localized Significance Threshold Methodology, Appendix C. Revised October 21, 2009. Website: http://www.aqmd.gov/home /regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds. Accessed June 24, 2022.

number of acres disturbed in a day would be 3.5 acres during grading. To ensure a conservative analysis, the project emissions have been compared to the 2-acre per day LST.

Table 15: Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Site Preparation	Rubber Tired Bulldozers	3	0.5	1.5
	Tractors/Loaders/Backhoes	4	0.5	2.0
			Total Per Phase	**3.5**
Grading	Graders	1	0.5	0.5
	Rubber Tired Bulldozers	1	0.5	0.5
	Tractors/Loaders/Backhoes	3	0.5	1.5
			Total Per Phase	**2.5**

Notes:
Source: CalEEMod output and South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2. Accessed June 2, 2022.

Table 16 presents the proposed project's maximum daily on-site emissions compared with the applicable LSTs. As described previously, the closest sensitive receptor is 470 feet north from the closest project boundary, which is 143 meters. To make a conservative estimate, the LSTs have been obtained from the LST Methodology for 2-acre project site located in Source Receptor Area (SRA) 24 where sensitive receptors are 100 meters away. As noted in Table 16, emission estimates account for implementation of SCAQMD Rule 403, and the construction vehicle trip lengths are adjusted to 0.25 miles to represent localized emissions.

Table 16: Construction Localized Significance Screening Analysis

Activity	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Summer				
Project Site Construction 2022	44.6	37.7	9.69	5.78
Frontage Improvements 2022	16.8	14.2	3.25	1.92
Year 2022 Total	**61.4**	**51.9**	**12.94**	**7.7**
Project Site Construction 2023	24.9	29.7	1.2	1.09
Frontage Improvements 2023	0	0	0	0
Year 2023 Total	**24.9**	**29.7**	**1.2**	**1.09**
Winter				
Project Site Construction 2022	44.7	37.7	9.69	5.78
Frontage Improvements 2022	20.3	17.9	3.74	2.23

Activity	On-site Emissions (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Year 2022 Total	**65**	**55.6**	**13.43**	**8.01**
Project Site Construction 2023	15.9	18.3	0.74	0.67
Frontage Improvements 2023	0.93	1.15	0.04	0.03
Year 2023 Total	**65**	**55.6**	**13.43**	**8.01**
Maximum Daily On-site Construction Emissions[1]	**2022**	**2022**	**2022**	**2022**
Season	**Winter**	**Winter**	**Winter**	**Winter**
Localized Significance Threshold (SRA 24, 2-acre site, 100 meter)	**264**	**2,232**	**38**	**10**
Exceed Threshold?	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
[1] Assumes overlap of construction activities based on schedule presented in Table 7.
The PM_{10} and $PM_{2.5}$ emissions reflect the combined exhaust and mitigated fugitive dust emissions in accordance with SCAQMD Rule 403.
Source of emissions: Appendix A.
Source of thresholds: South Coast Air Quality Management District 2009, for SRA 24, 2-acre site, 100 meters from nearest sensitive receptor.

As shown in Table 16, the proposed project's maximum daily on-site emissions would not exceed the applicable SCAQMD LSTs for NO_X, CO, PM_{10} and $PM_{2.5}$; therefore, localized construction impacts related to these air pollutants would be less than significant.

Localized Operational Analysis

Similar with the construction LST analysis above, the applicable operational LSTs were obtained for a project located in SRA 24 with the nearest sensitive receptor being 100 meters away. Long-term operations would occur for the proposed project on the 7.48-acre project site, and LSTs were obtained for a 2-acre site.

As described above, the LST Methodology recommends that only on-site emissions are evaluated using LSTs. Because most of the proposed project's mobile source emissions would occur on the local and regional roadway network away from the project site, truck trip emissions and on-site area-, energy-, and mobile source emissions were included in this analysis. A trip length of 0.5 mile was used in the modeling input assumptions to account for on-site emissions and from mobile sources. The 0.5-mile on-site trip length is a conservative estimate that takes into account the maximum project site distance a vehicle could travel, not the most likely or fastest route, to ensure all potential impacts are considered. Table 17 presents the project's maximum daily on-site emissions compared with the appropriate LSTs.

Table 17: Operational Localized Screening Significance Analysis

Emissions Source	Pounds per Day			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Maximum Daily On-site Operational Emissions	**2.08**	**10.01**	**0.11**	**0.07**
Season	Winter	Summer	Summer	Summer
Localized Significance Thresholds (SRA 24, 2-acre site, 100 meter)	**264**	**2,232**	**10**	**3**
Exceeds Screening Threshold?	**No**	**No**	**No**	**No**

Notes:
CO = carbon monoxide
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
Source of Emissions: Appendix A.
Source of thresholds: SCAQMD Mass Rate Lookup Tables for a 2-acre site in SRA 24 for sensitive receptors located 100 meters from the project site.

As shown in Table 17, the proposed project's maximum daily on-site operational emissions would not exceed any applicable SCAQMD LSTs. Therefore, the proposed project's operational activities would not cause or contribute substantially to an existing or future ambient air quality standard violation. Accordingly, the proposed project's operational criteria air pollutant and ozone precursor concentrations would not expose sensitive receptors to substantial pollutant concentrations. The impact would be less than significant.

Criterion 2: Carbon Monoxide Hotspot Analysis

As identified in the Traffic Memorandum, the project would generate up to 27 trips in the AM peak-hour and 29 trips in the PM peak-hour.[68] The Traffic Memorandum determined that the proposed project would generate up to 286 average daily trips, including trucks and passenger cars. As described in the Traffic Analysis, project-generated passenger car and truck trips would be distributed throughout the day and would not impact local roadways at one time, further reducing the potential impacts to CO. As a result, none of the intersections near the project site would have peak-hour traffic volumes exceeding those at the intersections modeled in the 2003 AQMP. Additionally, the adjacent roadways are not located in an area where vertical or horizontal atmospheric mixing is substantially limited, such as a tunnel or overpass. Furthermore, there are no factors unique to the local meteorology to conclude that this intersection would yield higher CO concentrations if modeled in detail. Therefore, the operational CO impact would be less than significant.

[68] Urban Crossroad. 2022. Ramona Expressway and Brennan Warehouse Vehicle Miles Traveled Screening Evaluation. April.

Criterion 3: Toxic Air Contaminants

Toxic Air Pollutants—On-site Workers

A variety of State and national programs protect workers from safety hazards, including high air pollutant concentrations.[69,70]

On-site workers are not required to be addressed through the Health Risk Assessment (HRA) process. A document published by CAPCOA, Health Risk Assessments for Proposed Land Use Projects, indicates that on-site receptors are included in risk assessments if they are persons not employed by the project.[71] Persons not employed by the proposed project would not remain on-site for any significant period. Therefore, an HRA for on-site workers is not required or recommended. No further discussion is necessary.

Health Risk Assessment

During construction and operation, the proposed project would result in emissions of several TACs that could potentially impact nearby sensitive receptors. The SCAQMD has defined health risk significance thresholds. These thresholds are represented as a cancer risk to the public and a non-cancer hazard from exposures to TACs. Cancer risk represents the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a period of several years. The principal TAC emission analyzed in this assessment was DPM from operation of off-road equipment and diesel-powered delivery and worker vehicles during construction and operation. DPM has been identified by the ARB as a carcinogenic substance. For purposes of this analysis, DPM is represented as exhaust emissions of PM_{10}.

Estimation of Cancer Risks

Cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer as a direct result of exposure to potential carcinogens over a specified exposure duration. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in a million implies a likelihood (or risk) that up to 10 persons out of 1 million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of TACs over a specified duration of time. This risk would be an excess cancer risk that is in addition to any environmental cancer risk borne by a person not exposed to these air toxics.

The Office of Environmental Health Hazard Assessment (OEHHA) has developed guidance for estimating cancer risks that considers the increased sensitivity of infants and adults to TAC emissions, different breathing rates, and time spent at home. This guidance was applied in estimating cancer risks from the construction and operation of the proposed project.

The recommend method for the estimation of cancer risk is shown in the equations.

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \quad \text{(EQ-1)}$$

---

69 Occupational Safety and Health Administration (OSHA). 2003. United States Department of Labor. Safety and Health Topics: Methane. Website: www.osha.gov/dts/chemicalsampling /data/CH_250700.html. Accessed June 24, 2021.

70 Centers for Disease Control and Prevention (CDC). 2012. Construction—website: www.cdc.gov/niosh/construction/. Indoor Environmental Quality—website: www.cdc.gov/niosh/topics/indoorenv/constructionieq.html. Accessed June 24, 2021.

71 California Air Pollution Control Officers Association (CAPCOA). 2009. Health Risk Assessments for Proposed Land Use Projects.

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = CPF \times EF \times ED \times DBR \times AAF/AT \qquad \text{(EQ-2)}$$

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 $(mg/kg\text{-}day)^{-1}$ for DPM
EF = Exposure frequency (days/year)
ED = Exposure duration (years of construction)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)
AT = Averaging time period over which exposure is averaged (days)

Estimation of Chronic Non-Cancer Hazards

An evaluation of potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate Reference Exposure Level (REL). Available RELs promulgated by OEHHA were considered in the assessment.

Risk characterization for non-cancer health hazards from TACs is expressed as a Hazard Index (HI). The HI is a ratio of the predicted concentration of the project's emissions to a concentration considered acceptable to public health professionals, termed the REL.

To quantify non-carcinogenic impacts, the HI approach was used.

$$HI = C_{ann}/REL \qquad \text{(EQ-3)}$$

Where:

HI = chronic hazard index
C_{ann} = annual average concentration of TAC as derived from the air dispersion model ($\mu g/m^3$)
REL = reference exposure level above which a significant impact is assumed to occur ($\mu g/m^3$)

The HI assumes that chronic exposures to TACs adversely affect a specific organ or organ system (toxicological endpoint) of the body. For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the HI, each chemical concentration or dose is divided by the appropriate toxicity REL. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist. OEHHA has defined a REL for DPM of 5 $\mu g/m^3$. The principal toxicological endpoint assumed in this assessment was through inhalation.

Toxic Air Contaminant Construction Analysis

Major sources of DPM during construction include off-road construction equipment and heavy-duty delivery truck activities. The results of the HRA prepared for project construction for cancer risk and long-term chronic cancer risk are summarized below. Air dispersion modeling was utilized to assess the proposed project's potential health risks using the American Meteorological Society/EPA Regulatory Model (AERMOD), which is the air dispersion model accepted by the EPA and the SCAQMD for preparing HRAs. Exhaust emissions of DPM (as PM_{10} exhaust) were estimated using CalEEMod. The construction emissions were assumed to be distributed over the project area with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365-day-per-year averaging period. Detailed parameters, a description of methodology, and complete calculations are contained in Appendix B.

The estimated health and hazard impacts at the Maximally Impacted Sensitive Receptor (MIR) from the proposed project's construction emissions, prior to incorporation of mitigation are provided in Table 18.

Table 18: Estimated Health Risks and Hazards During Project Construction (Unmitigated)

Source	Cancer Risk (risk per million)	Chronic Non-Cancer HI[1]
Risks and Hazards at the MIR: Infants	6.41	0.016
Risks and Hazards at the MIR: Child	1.91	0.016
Risks and Hazards at the MIR: Adult	0.14	0.016
Significance Threshold	**10**	**1**
Exceeds Individual Source Threshold?	**No**	**No**

Notes:
HI = hazard index
MIR = Maximally Impacted Sensitive Receptor
[1] Chronic non-cancer HI was estimated by dividing the maximum annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: Appendix B.

As noted in Table 18, construction of the proposed project would not exceed the cancer risk and non-cancer hazard index significance thresholds. Therefore, the proposed project would not result in a significant impact on nearby sensitive receptors from TACs during construction.

Toxic Air Contaminant Operational Analysis

As mentioned in Section 2.4.3, Local, PVCCSP mitigation measure MM Air 15 requires that, to identify potential implementing development project-specific impacts resulting from the use of diesel trucks, proposed development projects that include an excess of 10 dock doors for a single building, and that are subject to CEQA and are located adjacent to sensitive land uses, shall have a facility-specific HRA performed to assess the diesel particulate matter impacts from mobile source traffic generated by that implementing development project. The proposed project would include 22 dock doors; therefore, an operational HRA was conducted to access the impact. Results of the operational HRA are assessed below, and the full HRA is included as part of Appendix B.

The proposed project would primarily generate passenger vehicle trips from employees, visitors, and light-duty delivery vehicles traveling to and from the project site; however, the proposed project would also be served with daily truck deliveries. The main source of DPM from the long-term operations of warehouses is from combustion of diesel fuel in diesel-powered engines in heavy-duty trucks. Motor vehicle emissions refer to DPM exhaust emissions from the motor vehicle traffic that would travel to and from the project site each day. An estimate of the number of vehicle trips that the proposed project would generate was prepared by traffic impact study, as shown in Table 11 contained in Section 4-Modeling Parameters and Assumptions.

Operational emissions for the proposed project were assessed assuming the first year of operations would occur in 2023. The emission factors, AERMOD Output, and emission estimation spreadsheets used to estimate motor vehicle DPM emissions during project operations are provided in Appendix B.

The results HRA prepared for project operations, for cancer risk and long-term chronic cancer risk, are summarized below. Similar to the HRA performed for construction emissions, air dispersion modeling was utilized to assess the proposed project's potential health risks using AERMOD. Exhaust emissions of DPM (as PM_{10} exhaust) were estimated using EMFAC2021. The OEHHA-recommended values for the various cancer risk parameters used in the operational HRA are provided below in Table 19. The parameters and methodology are summarized in Section 4-Modeling Parameters and Assumptions. Detailed calculations are provided in Appendix B.

Table 19: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate[1] (l/kg-day)
	Hours/day	Days/year				
Sensitive/Residential—Infant (Third Trimester)						
Third Trimester	24	350	0.25	10	1	361
0–2 years	24	350	2	10	1	1,090
Sensitive Receptor—Child						
3–16 years	24	350	14	3	1	572
Sensitive Receptor—Adult						
> 16 to 30 years	24	350	14	1	73	261

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors	Time at Home Factor (%)	Daily Breathing Rate[1] (l/kg-day)
	Hours/day	Days/year				
> 30 years	24	350	1	1	73	233

Notes:
[1] The daily breathing rates for sensitive/residential receptors assume the 95th percentile breathing rates for all individuals less than 2 years of age and 80th percentile breathing rates for all older individuals.
(l/kg-day) = liters per kilogram body weight per day
Source: Appendix B.

An operational HRA was performed to determine calculate the cancer health risks and the non-hazard indices for sensitive receptors within approximately 2,000 feet of the project boundary. Because the same off-site receptors would be exposed to emissions from both construction and operation of the proposed project, DPM (as PM_{10} exhaust) from short-term construction of the project and long-term operations of the project were combined to calculate the cancer health risk and the non-hazard index to determine the MIR. Because the early year factors are the highest, risks for operations alone were also evaluated. The results of this analysis are summarized in Table 20.

Table 20: Summary of Health Risk Impacts From Project Operations (30-Year Exposure)

Health Impact Metric	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index[(1)]
Construction and Operations		
Risks and Hazards at the MIR over 30-year exposure	8.55	0.016
SCAQMD Significance Threshold	**10**	**1**
Exceeds Individual Source Threshold?	**No**	**No**
Operations Only		
Risks and Hazards at the MIR over 30-year exposure	2.55	0.004
SCAQMD Significance Threshold	**10**	**1**
Exceeds Individual Source Threshold?	**No**	**No**

Notes:
MIR = Maximally Impacted Sensitive Receptor
SCAQMD = South Coast Air Quality Management District
[1] Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) by the REL of 5 $\mu g/m^3$.
Source: Appendix B.

The maximum cancer risks at the MIR over the approximate 10-month construction period combined with cancer risks over a 30-year operational exposure duration would be less than 10 in one million, and the maximum hazard index for chronic HI would be less than 0.1. As noted in Table 20, the health risks and hazard index are below the SCAQMD's thresholds of significance under all scenarios analyzed. Therefore, the proposed project's operation would not expose sensitive receptors to substantial pollutant concentrations.

Cumulative Toxic Air Contaminant Operational Analysis

As previously discussed, projects that exceed project-specific significance thresholds are considered by the SCAQMD cumulatively considerable. Conversely, projects that do not exceed project-specific thresholds are generally not considered cumulatively significant. As discussed in Criteria 1 through 3, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Since the proposed project would not exceed project-specific thresholds it would not be considered to result in cumulatively significant impacts.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

Implement PVCCSP mitigation measures listed in Impact AIR-1(PVCCSP mitigation measure MM Air-2 through PVCCSP mitigation measure MM Air-9; PVCCSP mitigation measure MM Air-11 through PVCCSP mitigation measure MM Air-14; and PVCCSP mitigation measure MM Air-19 through PVCCSP MM Air-20).

Project-specific Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Less than significant impact.

5.2.4 - Objectionable Odors

Impact AIR-4:	**The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Impact Analysis

Odor impacts on residential areas and other sensitive receptors, such as hospitals, daycare centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas.

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor.

Odors can cause a variety of responses. The impact of an odor is dependent on interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

The SCAQMD does not provide a suggested screening distance for a variety of odor-generating land uses and operations. However, the San Joaquin Valley Air Pollution Control District (Valley Air District) does have a screening distance for odor sources. Those distances are used as a guide to assess whether nearby facilities could be sources of significant odors. Proposed projects that would site a new sensitive receptor farther than the applicable screening distances from an existing odor source would not likely to have a significant impact. The SCAQMD considers residences, schools, daycare centers, playgrounds, and medical facilities as sensitive receptor land uses. The closest sensitive receptor located near the project site is a single-family home which is 470 feet north from the closest project boundary.

These screening distances by type of odor generator are listed in Table 21.

Table 21: Screening Levels for Potential Odor Sources

Odor Generator	Screening Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile

Source: Source: San Joaquin Valley Air Pollution Control District (Valley Air District). 2015. Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI). February 19. Website: https://www.valleyair.org/transportation/GAMAQI-2015/FINAL-DRAFT-GAMAQI.PDF. Accessed June 24, 2022.

Construction-Related Odors

Potential sources that may emit odors during construction activities include exhaust from diesel construction equipment. However, because of the temporary nature of these emissions, the intermittent nature of construction activities, and the highly diffusive properties of diesel PM exhaust, nearby receptors would not be affected by diesel exhaust odors associated with project construction. Odors from these sources would be localized and generally confined to the immediate area surrounding the proposed project site. The proposed project would utilize typical construction techniques and the odors would be typical of most construction sites and temporary in nature.

Operational-Related Odors

The proposed project includes the construction and development of a warehouse building, parking spaces, and associated landscaping. Land uses that are typically identified as sources of objectionable odors include landfills, transfer stations, sewage treatment plants, wastewater pump stations (the proposed project would include a small on-site private sewer lift station), composting facilities, feedlots, coffee roasters, asphalt batch plants, and rendering plants. The end uses of the proposed warehouse would involve e-commerce distribution. The proposed project would not produce any offensive odor emitting end uses such as coffee roasting, composting, feed lots, refining, sewage treatment, or solid waste management and would not be considered an odor generator as identified in Table 21. Additionally, since the proposed project would not include new sensitive receptors, such as residences, the proposed project would not locate new sensitive receptors near an odor source. Therefore, the proposed project would not be a generator of objectionable odors during operations. Minor sources of odors, such as exhaust from mobile sources, are not typically associated with numerous odor complaints but are known to have temporary and less concentrated odors. In summary, the project's long-term operational activities would not have any substantial odor sources that would expose nearby receptors. Considering the low intensity of potential odor emissions, the proposed project's operational activities would not expose receptors to objectionable odor emissions.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

No mitigation required.

Project-specific Mitigation Measures

No mitigation required.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 6: GREENHOUSE GAS IMPACT ANALYSIS

6.1 - CEQA Guidelines

The CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on GHGs, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the proposed project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

6.1.1 - Thresholds of Significance for the Proposed Project

Section 15064.4(b) of the CEQA Guidelines' 2018 amendments for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration No. 1**: The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- **Consideration No. 2**: Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration No. 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. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon "threshold of significance" by which to measure an impact. While the CARB published draft thresholds in 2008, they were never adopted, and the CARB recommended that local air districts and lead agencies adopt their own thresholds for GHG impacts.

SCAQMD GHG Thresholds

The project site is within the SoCAB, which is under the jurisdiction of the SCAQMD. In 2008, the SCAQMD formed a working group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the air basin. The working group developed several different options that are contained in the SCAQMD Draft Guidance Document—Interim CEQA GHG Significance Threshold (Interim GHG Thresholds) that could be applied by lead agencies. The SCAQMD Board has adopted the 10,000 metric tons of carbon dioxide equivalent (MT CO_2e) interim screening threshold for new stationary/industrial sources for which the SCAQMD is the lead agency but has not approved the thresholds or other uses. In 2010, the SCAQMD Tier 3 threshold was expanded to include non-industrial projects, as explained in the minutes from the most recent working group meeting.[72] However, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
  - Industrial projects: 10,000 MT CO_2e per year for all lead agencies
  - All non-industrial land use types: 3,000 MTCO_2e per year.
  - or
  - Based on land use type: residential: 3,500 MT CO_2e per year; commercial: 1,400 MT CO_2e per year; or mixed use: 3,000 MT CO_2e per year.
- Tier 4 has the following options:
  - Option 1: Reduce BAU emissions by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
  - Option 3, 2020 target for service population (SP), which includes residents and employees: 4.8 MT CO_2e/SP/year for projects and 6.6 MT CO_2e/SP/year for plans.

[72] South Coast Air Quality Management District (SCAQMD). 2010. Greenhouse Gas CEQA Threshold Stakeholder Working Group Meeting #15. September 28. Website: www.aqmd.gov/ceqa /handbook/GHG/2010/sept28mtg/ghgmtg15-web.pdf. Accessed June 24, 2022.

  - Option 3, 2035 target: 3.0 MT CO_2e/SP/year for projects and 4.1 MT CO_2e/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The thresholds identified above have not been adopted by the SCAQMD or distributed for widespread public review and comment, and the working group tasked with developing the thresholds has not met since September 2010. The future schedule and likelihood of threshold adoption is uncertain.

In the absence of other thresholds of significance promulgated by the SCAQMD, the City of Perris has been using the SCAQMD's 10,000 MT CO2e per year threshold for industrial projects and the draft thresholds for non-industrial projects the purpose of evaluating the GHG impacts associated with proposed general development projects. As stated above, SCAQMD staff were proposing to recommend the 10,000 MT CO2e per year threshold for industrial uses by all lead agencies. The City's use of the 10,000 MT CO2e per year threshold is also considered to be conservative since it is being applied to all of the GHG emissions generated by the proposed industrial projects (i.e., area sources, energy sources, vehicular sources, solid waste sources, and water sources) whereas the SCAQMD's 10,000 MT CO2e per year threshold applies only to the new stationary sources generated at industrial facilities.

The SCAQMD provided substantial evidence in support of its threshold approach. The SCAQMD discusses its draft thresholds in the following excerpt:[73]

> The overarching policy objective with regard to establishing a GHG significance threshold for the purposes of analyzing GHG impacts pursuant to CEQA is to establish a performance standard or target GHG reduction objective that will ultimately contribute to reducing GHG emissions to stabilize climate change. Full implementation of the Governor's Executive Order S-3-05 would reduce GHG emissions 80 percent below 1990 levels or 90 percent below current levels by 2050. It is anticipated that achieving the Executive Order's objective would contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing global climate.
>
> . . . staff's recommended interim GHG significance threshold proposal uses a tiered approach to determining significance. Tier 3, which is expected to be the primary tier by which the AQMD will determine significance for projects where it is the lead agency, uses the Executive Order S-3-05 goal as the basis for deriving the screening level. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to some type of CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact.

[73] South Coast Air Quality Management District (SCAQMD). 2008. Draft Guidance Document—Interim CEQA Greenhouse (GHG) Significance Threshold Document. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf. Accessed June 24, 2022.

In summary, the SCAQMD's draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO_2 concentrations at 450 parts per million (ppm), thus stabilizing global climate.

The proposed project's generation of GHG emissions are compared to the SCAQMD interim screening level numeric threshold of 10,000 MT of CO_2e annually for new industrial uses in order to determine the significance for Impact GHG-1. The significance of Impact GHG-2 is determined based on the compliance with applicable GHG reduction plans. Assessing the project's consistency with adopted plans to reduce GHG emissions is a methodology consistent with potential solutions offer by the Couth in the Newhall Ranch ruling (compliance with Consideration No. 3 regarding compliance with GHG reduction plans or CAPs).

6.2 - Impact Analysis

6.2.1 - Greenhouse Gas Inventory

Impact GHG-1: **The proposed project would generate direct and indirect greenhouse gas emissions; however, these emissions would not result in a significant impact on the environment.**

Impact Analysis

GHG emissions associated with development of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal.

Construction Emissions

The proposed project would generate GHG emissions during construction activities, resulting from emission sources such as construction equipment, haul trucks, and construction worker vehicles. Although these emissions would be temporary and short-term in nature, they could represent a substantial contribution of GHG emissions. Construction emissions were modeled using CalEEMod Version 2022.1. Table 22, below, shows the annual construction GHG emissions.

Table 22: Proposed Project Construction GHG Emissions

Construction Activity	Total GHG Emissions (MT CO_2e per year)
Main Site Demolition 2022	77
Main Site Preparation 2022	53
Main Site Grading 2022	29
Main Site Building Construction 2022	85
Main Site Building Construction 2023	293
Main Site Paving 2023	16
Main Site Architectural Coating 2023	3

Construction Activity	Total GHG Emissions ($MT\ CO_2e$ per year)
Frontage Site Preparation 2022	10
Frontage Grading 2022	25
Frontage Paving 2022	11
Frontage Architectural Coating 2022	1
Frontage Architectural Coating 2023	0.17
Total Construction Emissions	**603**
Emissions Amortized Over 30 Years[1]	**20**

Notes:
GHG = greenhouse gas
MT CO_2e = metric tons carbon dioxide equivalent
Totals may not appear to sum exactly due to rounding.
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: Appendix A.

As shown above, the proposed project would generate approximately 603 MT CO_2e during construction. Since SCAQMD has not established a construction GHG threshold, total construction emissions were amortized over 30 years and included in the emissions inventory to account for the short-term, one-time GHG emissions from the construction phase of the proposed project.

Operational Emissions

Operational or long-term emissions occur over the life of the project. Project operations were modeled for the 2023 operational year, immediately following the completion of construction. Sources for operational emissions are summarized below and are described in more detail in Section 4-Modeling Parameters and Assumptions. Sources for operational GHG emissions include:

- **Motor Vehicles:** These emissions refer to GHG emissions contained in the exhaust from the cars and trucks that would travel to and from the project site. Based on the Traffic Memorandum, the proposed project would generate 184 passenger car trips and 102 truck trips per day.
- **Natural Gas:** These emissions refer to the GHG emissions that occur when natural gas is burned on the project site. Natural gas uses could include heating water, space heating, dryers, stoves, or other uses.
- **Indirect Electricity:** These emissions refer to those generated by off-site power plants to supply electricity required for the project.
- **Area Sources:** These emissions refer to those produced during activities such as landscape maintenance.
- **Water Transport:** These emissions refer to those generated by the electricity required to transport and treat the water to be used on the project site.
- **Waste:** These emissions refer to the GHG emissions produced by decomposing waste generated by the project.

- **Stationary Sources:** Based on the information provided by the project applicant, a diesel fire pump is included as part of fire control. These emissions refer to the testing of the fire pump based on regulations.

- **Refrigerants:** During operation, there may be leakages of refrigerants (hydrofluorocarbons) from air conditioners and any refrigeration systems. These emissions refer to the CO_2e of the leaked refrigerants.

Table 23 presents the estimated annual GHG emissions from the project's operational activities. As shown in Table 23, the project would generate approximately 4,804 MT CO_2e per year after the inclusion of 20 MT CO_2e per year from project construction.

Table 23: Operational Greenhouse Gas Emissions (Unmitigated)

GHG Emissions Source	GHG Emissions (MT CO_2e per year)
Mobile	3,608
Area	3
Energy	334
Water	94
Waste	35
Refrigerant	708
Stationary	2
Amortized Construction	20
Total Annual Project Emissions	**4,804**
SCAQMD Threshold	**10,000**
Exceed SCAQMD Threshold?	**No**
Notes: MT CO_2e = metric tons carbon dioxide equivalent Source: Appendix A.	

As shown in Table 23, the proposed project's operational GHG emissions would not exceed the SCAQMD threshold. Therefore, the potential impacts associated the generation of greenhouse gas emissions would be less than significant and no project-specific mitigation would be required.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

No GHG mitigation measures are identified in the PVCCSP EIR; however, several of the applicable PVCCSP EIR air quality mitigation measures would have co-benefits that would serve to reduce project-generated GHG emissions. The applicable air quality mitigation measures from the PVCCSP EIR are provided in Section 2.4.3 of this report.

Project-specific Mitigation Measures

No mitigation required.

6.2.2 - Greenhouse Gas Reduction Plans

Impact GHG-2:	**The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of greenhouse gases.**

Impact Analysis

This impact is addressed by assessing the proposed project's consistency with the ARB's adopted 2017 Scoping Plan Update and the City of Perris' adopted CAP. This would be achieved with an assessment of the proposed project's compliance with applicable Scoping Plan measures and CAP measures as addressed below.

Senate Bill 32 2017 Scoping Plan Update

The 2017 Climate Change Scoping Plan Update addressing the SB 32 targets was adopted on December 14, 2017. Table 24provides an analysis of the project's consistency with the 2017 Scoping Plan Update measures. As shown in Table 24, many of the measures are not applicable to the proposed project, while the proposed project is consistent with strategies that are applicable.

Table 24: Consistency with SB 32 2017 Scoping Plan Update

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	**Not applicable.** This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from a utility subject to the SB 350 Renewable Mandate.
SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.	**Not applicable**. This measure applies to existing buildings. The proposed project will not utilize existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.
Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	**Not applicable.** This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would benefit from the standards.

2017 Scoping Plan Update Reduction Measure	Project Consistency
Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	**Consistent with Mitigation.** The proposed project is industrial in nature and would support truck and freight operations. It is expected that deliveries throughout the State would be made with an increasing number of ZEV delivery trucks, including trips that would be coming to and from the project site. The proposed project plan sets do not include electric vehicle charging infrastructure, which could prevent ZEV trucks from delivering goods to the site when operational. As a result, the proposed project could conflict with the Scoping Plan's Mobile Source Strategy, which would be a potentially significant impact. However, MM GHG-1 through MM GHG-3 would require the project to install electric vehicle infrastructure and include infrastructure to operate zero and near-zero freight vehicles and equipment powered by renewable energy.
Sustainable Freight Action Plan The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	**Consistent with Mitigation.** This measure applies to owners and operators of trucks and freight operations. The proposed project is industrial in nature and would support truck and freight operations. The proposed project plan sets do not include electric vehicle charging infrastructure, which could prevent ZEV trucks from delivering goods to the site when operational. In addition, the proposed project does not include zero-emission on-site operational equipment, such as forklifts or pallet jacks. The use of diesel-powered equipment would emit GHGs and potentially conflict with the Sustainable Freight Action Plan Target to improve efficiency by 25 percent. As a result, the proposed project could result in a potentially significant impact. However, MM GHG-1 through MM GHG-3 would require the project to install electric vehicle infrastructure and include infrastructure to operate zero and near-zero freight vehicles and equipment powered by renewable energy.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	**Consistent.** The proposed project would not include major sources of black carbon. This measure revolves around ARB's SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. DPM reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.

2017 Scoping Plan Update Reduction Measure	Project Consistency
SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	**Not applicable.** The proposed project does not include the development of a Regional Transportation Plan.
Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	**Not applicable.** The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.
Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	**Not Applicable**. The project site is in a built-up urban area next to existing light industrial uses and a highway and would not be considered natural or working lands.
Source: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November. Website: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed June 3, 2022.	

As discussed in Table 24, the proposed project could potentially conflict with the Scoping Plans goals contained in the Mobile Source Strategy and Sustainable Freight Action Plan, because it currently does not include electric vehicle charging infrastructure or the use and support of zero-emission on-site operational equipment infrastructure. As a result, MM GHG-1 through -3 would be necessary to ensure the proposed project supports the use of zero-emission freight vehicles and on-site operational equipment. Therefore, the proposed project would not conflict with any applicable 2017 Scoping Plan Update reduction measures after the incorporations of MM GHG-1 through MM GHG-3.

Consistency with Perris Climate Action Plan

The City of Perris adopted a CAP in February 2016 for the development and implementation of policies and programs to reduce GHG emissions within the City.[74] The following strategies are presented in the City's CAP and the proposed project's consistency with the CAP is discussed below.

[74] City of Perris. 2016. Climate Action Plan. Website: https://www.cityofperris.org/Home/ShowDocument?id=12935. Accessed June 24, 2022.

Table 25: Consistency with Perris Climate Action Plan

Perris CAP Measures	Project Consistency
E1: Energy Action Plan. Improve municipal and community-wide energy efficiency and reduce energy consumption through the adoption of local Energy Action Plans (EAPs).	**Consistent.** The proposed project would comply with the most recent Title 24 requirements, which are considered the most state-of-the-art energy efficiency codes in California. Compliance with Title 24 requirements would ensure compliance with the local EAP.
T-1: Bicycle Infrastructure Improvements. Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.	**Consistent.** The proposed project would be required to comply with AB 1109. As described in the Project Description, the proposed project would provide a Class I multiuse trail along the proposed project frontage and landscaped parkway in accordance with the City of Perris, County of Riverside, and California Department of Transportation (Caltrans) standards.
T-2: Bicycle Parking. Provide additional options for bicycle parking.	**Consistent.** The proposed project would comply with City Municipal Code standards for bicycle parking.
T-3: End of Trip Facilities. Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.	**Consistent.** The proposed project would comply with City Municipal Code standards for bicycle parking.
T-4: Transit Frequency Expansion. Collaborate with local and regional transit providers to provide more frequent transit in the subregion.	**Not applicable.** This measure would be the responsibility of the City of Perris and the proposed project would not collaborate with local and regional transit providers.
T-7: Mixed-Use Development. Provide for a variety of development types and uses.	**Not applicable**. The proposed project would be light industrial and would be consistent with existing zoning designations. As this measure is only relevant to mixed-use development projects, the measure would not be applicable.
T-8: Design/Site Planning. Design neighborhoods and sites to reduce VMT.	**Consistent.** The proposed project site plan and design would be reviewed by the City of Perris prior to issuance of construction permits, which would ensure VMT is considered in site design.
T-10: Limit Parking Requirements for New Development. Reduce requirements of vehicle parking in new development projects.	**Consistent.** The proposed project would comply with City Municipal Code standards for parking.
T-11: Voluntary Transportation Demand Management. Reduce demand for roadway travel through incentives for alternative modes of transportation and disincentives for driving.	**Consistent.** The proposed project would comply as needed by the City.
SW-2: Food Scrap and Compostable Paper Diversion. Divert food and paper waste from landfills by implementing collection system.	**Consistent.** The proposed project would comply with City Municipal Code standards for waste disposal.

In summary, the proposed project is consistent with applicable strategies and would not conflict with the recommendations and reduction measures outlined in the 2017 Scoping Plan addressing the SB 32 targets after incorporation of mitigation. Furthermore, the proposed project would be consistent with the appliable measures listed in the City's CAP. Considering this information, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce the emissions of GHGs. Therefore, the impact would be less than significant with incorporation of MM GHG-1 through MM GHG-3.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

No mitigation required.

Project-specific Mitigation Measures

MM GHG-1 Incorporation of Electric Vehicle Charging Stations

The project shall incorporate a minimum of 8 percent of all vehicle parking spaces (including for trucks) with electric vehicle (EV) charging stations, consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Voluntary Measure (Section A5.106.5.3.1). EV charging spaces must provide electrical vehicle charging infrastructure to support future installation of EV supply equipment and shall meet the design space requirements of California Green Building Standards Code Section 5.106.5.3.2.

MM GHG-2 Support of Electric Powered Interior Vehicles

All buildings shall be designed to provide infrastructure to support use of electric-powered forklifts and/or other interior vehicles.

MM GHG-3 Provision of Electric Infrastructure

All buildings shall be designed to provide electric infrastructure to support use of exterior yard trucks and on-site vehicles. The operation of yard trucks that are used to move trailers and on-site vehicles within the project site shall be powered by electricity unless the project applicant can reasonably demonstrate that specific equipment is not available for a particular task.

Level of Significance After Mitigation

Less than significant impact.

THIS PAGE INTENTIONALLY LEFT BLANK

SECTION 7: ENERGY IMPACT ANALYSIS

7.1 - CEQA Guidelines

CEQA Guidelines define a significant effect on the environment as "a substantial, or potentially substantial, adverse change in the environment." To determine whether a project would have a significant impact on energy, the type, level, and impact of emissions generated by the project must be evaluated.

The following GHG significance thresholds are contained in Appendix G of the CEQA Guidelines, which were amendments adopted into the Guidelines on March 18, 2010, pursuant to SB 97. A significant impact would occur if the proposed project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

7.2 - Impact Analysis

7.2.1 - Project Energy Consumption

Impact ENER-1:	**The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during construction or operation.**

Impact Analysis

A discussion of the proposed project's anticipated energy usage is presented below. Energy use consumed by the proposed project was estimated and includes natural gas, electricity, and fuel consumption for project construction and operation. Energy calculations are included as part of Appendix C.

Southern California Edison (SCE) provides electricity service and Southern California Gas Company (SoCalGas) provides natural gas service to the City and the project site.

Construction Impacts

The project construction schedule was assumed to begin in September 2022 and conclude in June 2023. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require demolition, site preparation, grading, building construction, architectural coating, and paving. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition, site clearing, and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Construction equipment is estimated to consume a total of 35,446 gallons of diesel fuel over the entire construction duration (Appendix C).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix C. In total, the proposed project is estimated to generate 337,627 VMT and a combined 20,755 gallons of combined gasoline and diesel for vehicle travel during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. Section 7.34.060 of the Perris Municipal Code defines permissible hours of construction as between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday.[75] As on-site construction activities would be restricted to these hours, it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 10,391 kilowatt hours (kWh) during the 10-month construction phase (Appendix C).

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Therefore, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

Operational Impacts

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in Table 26.

[75] City of Perris. Perris Municipal Code, chapter 7.34. Website: https://library.municode.com/ca/perris/codes/code_of_ordinances?nodeId=COOR_TIT7HEWE_CH7.34NOCO_S7.34.060CONO. Accessed June 24, 2022.

Table 26: Estimated Annual Project Energy Consumption

Energy Consumption Activity	Annual Consumption
Electricity Consumption	825,300 kWh/year
Natural Gas Consumption	2,512,296 kBTU/year
Operational Fuel Consumption–Passenger Vehicles	*26,765 gallons of gasoline and diesel*
Operational Fuel Consumption–Trucks	*235,921 gallons of primarily diesel*
Total Fuel Consumption (Passenger Vehicles and Trucks Combined)	262,686 gallons of gasoline and diesel

Notes:
kBTU = kilo-British Thermal Unit
kWh = kilowatt-hour
VMT = Vehicle Miles Traveled
Source: Appendix C.

Operation of the proposed project would consume an estimated 825,300 kWh of electricity and an estimated 2,512,296 kBTU of natural gas on an annual basis. The proposed project’s building would be designed and constructed in accordance with the City’s latest adopted energy efficiency standards, which are based on the State’s Building Energy Efficiency Standards. These are widely regarded as the most advanced building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary.

Project-related vehicle trips would consume an estimated 262,686 gallons of gasoline and diesel annually and would involve activities and travel routes typical of a warehouse-type project. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

No mitigation required.

Project-specific Mitigation Measures

No mitigation required.

7.2.2 - Energy Plan Consistency

Impact ENER-2: **The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.**

Impact Analysis

The proposed project would be served with electricity provided by SCE. In 2020, SCE obtained 30.9 percent of its electricity from renewable energy sources. SCE also offers a Green Rate 50 percent option that sources 65.4 percent of its power mix from eligible renewable energy sources and a Green Rate 100 percent option that sources 100 percent of its power mix from eligible renewable energy sources.[76] The utility would be required to meet the future objective of 60 percent of electricity from renewable energy sources by 2030. The proposed warehouse building would be designed in accordance with Title 24, California's Energy Efficiency Standards for Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the proposed project would not result in the use of energy in a wasteful manner.

The Perris General Plan contains the following policies related to energy conservation.[77]

Implementing Policies

Goal VIII Sustainable Future: Create a vision for energy and resource conservation and the use of green building design for the City, to protect the environment, improve quality of life, and promote sustainable practices.

Policy VIII.A Adopt and maintain development regulations that encourage water and resource conservation.

Policy VIII.B Adopt and maintain development regulations that encourage recycling and reduced waste generation by construction projects.

Policy VIII.C Adopt and maintain development regulations which encourage increased energy efficiency in buildings, and the design of durable buildings that are efficient and economical to own and operate. Encourage green building development by establishing density bonuses, expedited permitting, and possible tax deduction incentives to be made available for developers who meet LEED building standards for new and refurbished developments (U.S. Green Building Council's Leadership in Energy and Environmental Design green building programs).

While several of these policies are voluntary or cannot be implemented by an individual development project, compliance with Title 24 standards and other applicable regulations would

[76] California Energy Commission (CEC). 2020 Power Content Label. Website: https://www.energy.ca.gov/filebrowser/download/3902. Accessed June 24, 2022.

[77] City of Perris. 2016. Climate Action Plan. Website: https://www.cityofperris.org/Home/ShowDocument?id=12935. Accessed June 24, 2022.

ensure that the proposed project would not conflict with any of the General Plan energy conservation policies related to the proposed project's building, mechanical systems, and indoor and outdoor lighting.

The proposed project would comply with existing State energy standards and with energy conservation policies contained in the General Plan. As such, the proposed project would not conflict with State or local renewable or energy efficiency objectives. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

PVCCSP Mitigation Measures

No mitigation required.

Project-specific Mitigation Measures

No mitigation required.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A:
CalEEMod Output and Additional Supporting Information

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix A: CalEEMod Output and Additional Supporting Information

Table of Contents

Demolition Debris Calculations

Parameters[1]			
1	building sq ft	10	cf building volume
1	cf building volume	0.25	cf waste volume
1	cf	0.037	cy
1	cy waste volume	0.5	ton waste weight
1	**sf**	**0.04625**	**ton waste material**

Description	square feet[2]	height/ depth (ft)[3]	density (lbs/cf)[4]	Demolition Weight (pounds)	Demolition Weight (tons)
Buildings	4,400	-	-	-	203.50
Pavement	133,000	0.5	148	9,842,000	4,921.00
Totals	**137,400**	-	-	-	**5,125**

Notes:
cy = cubic yard
gsf = gross square feet
sf = square feet
cf = cubic feet

[1] Source: California Air Pollution Control Officers Association (CAPCOA). 2017. Appendix A Calculation Details for CalEEMod.

[2] Source: provided by project applicant

[3] Source: DC Construction Services. 2017. How Thick Is Parking Lot Asphalt? Website: https://dccpaving.com/how-thick-is-parking-lot-asphalt/. Accessed June 22, 2022.

[4] Source: SFGate. 2021. How to Calculate Asphalt Weight Per Yard. Website: https://homeguides.sfgate.com/calculate-asphalt-weight-per-yard-81825.html. Accessed June 22, 202

Horsepower Hour Conservation Calculations

BUILDING CONSTRUCTION — **Activity Duration**

	CalEEMod Defaults	Revisions	Difference
Building Construction	220	167	**-53**

CalEEMod Defaults

Building Construction

Equipment	Amount	Usage Hours	Horsepower	Load Factor	HP Hours
Cranes	1	7	367	0.29	163,902
Forklifts	3	8	82	0.20	86,592
Generator Sets	1	8	14	0.74	18,234
Tractors/Loaders/Backhoes	3	7	84	0.37	143,590
Welders	1	8	46	0.45	36,432
				Total	**448,749**

Revisions

Building Construction — **Cross-Check**

Equipment	Amount	Usage Hours	Horsepower	Load Factor	HP Hours	Goal HP Hours	Difference
Cranes	1	9.2	367	0.29	163,902	163,902	-
Forklifts	4	7.9	82	0.2	86,592	86,592	-
Generator Sets	1	10.5	14	0.74	18,234	18,234	-
Tractors/Loaders/Backhoes	3	9.2	84	0.37	143,590	143,590	-
Welders	1	10.5	46	0.45	36,432	36,432	-
				Total	**448,749**	448,749	-

Project Fleet Mix Adjustments (2023)

CalEEMod Riverside County 2023 Operational Year Default Fleet Mix														**Total**
	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0.49683481	0.04152461	0.19361068	0.162853643	0.03333494	0.00934433	0.01404826	0.01485215	0.00063332	0.0003966	0.02408898	0.00134431	0.00713334	1.000
					2-axle	2-axle	3-axle	4-axle						
Trucks Only*	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	0	0	0	0	0.0333	0.0093	0.0140	0.0149	0	0	0	0	0	0.072
Truck Trips based on Traffic Memo					18		22	62						102
Adjusted Truck Fleet Mix 2023 for Warehouse Land Use in CalEEMod	0	0	0	0	13.78%	3.86%	21.57%	60.78%	0	0	0	0	0	1.000
Passenger Cars	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
Default Light Duty Fleet Mix	0.49683481	0.04152461	0.19361068	0.1629	0	0	0	0	0	0	0	0	0	0.895
Difference to be allocated	0.10517625													
Adjusted Passenger Cars Fleet Mix 2023 for Office Land Use in CalEEMod	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	55.52%	4.64%	21.64%	18.20%	0	0	0	0	0	0	0	0	0	1.000
Adjusted Total Number of Trips	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	
	102.2	8.5	39.8	33.5	14.1	3.9	22.0	62.0	0	0	0	0	0	286

	Cars	Trucks	Total Daily Trips
Daily Trips	184	102	**286**
Fleet Mix	64.3%	35.7%	100%

Maximum Daily Project Construction Emissions

Model File: Perris Ramona Expressway Warehouse Main Site
Timestamp: 6/10/2022
Model File: Perris Ramona Expressway Warehouse Frontage Improvement
Timestamp: 6/10/2022

Summer Construction Emissions (lb/day)

Year	Activity	VOC	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
2022	**Main Site Construction**	4.46	52.3	40.3	0.09	11.5	6.35
2022	**Frontage Construction**	1.71	16.8	14.8	0.02	3.35	1.94
2022	**Total**	**6.17**	**69.1**	**55.1**	**0.11**	**14.85**	**8.29**
2023	**Main Site Construction**	20.5	26	37.7	0.05	2.7	1.46
2023	**Frontage Construction**	0	0	0	0	0	0
2023	**Total**	**20.5**	**26**	**37.7**	**0.05**	**2.7**	**1.46**

Winter Construction Emissions (lb/day)

Year	Activity	VOC	NOx	CO	SOx	PM10	PM2.5
2022	**Main Site Construction**	4.45	52.6	39.9	0.09	11.5	6.35
2022	**Frontage Construction**	2.1	20.4	18.7	0.02	3.9	2.27
2022	**Total**	**6.55**	**73**	**58.6**	**0.11**	**15.4**	**8.62**
2023	**Main Site Construction**	2.03	17	22.4	0.04	1.87	0.96
2023	**Frontage Construction**	1.87	0.93	1.15	0	0.04	0.03
2023	**Total**	**3.9**	**17.93**	**23.55**	**0.04**	**1.91**	**0.99**

Maximum Daily Construction Emissions (lb/day)

Activity	VOC	NOx	CO	SOx	PM10	PM2.5
Overall Construction	20.5	73	58.6	0.11	15.4	8.62
Year	2023	2022	2022	2022	2022	2022
Season	Summer	Winter	Winter	Same	Winter	Winter
SCAQMD Significance Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Project Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Project Operational Emissions Summary

Model File:	Perris Ramona Expressway Warehouse Main Site
Timestamp:	6/10/2022
Model File:	Perris Ramona Expressway Warehouse Frontage Improvement
Timestamp:	6/10/2022

Summer Operational Emissions (lb/day)

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	Pounds per Day					
Area	4.82	0.06	7.19	< 0.005	0.01	0.01
Energy	0.04	0.67	0.57	< 0.005	0.05	0.05
Mobile	2.02	20.70	11.60	0.20	3.80	1.09
Stationary (Fire Pump)	0.02	0.05	0.06	< 0.005	< 0.005	< 0.005
Total	**6.90**	**21.48**	**19.42**	**0.20**	**3.86**	**1.15**
SCAQMD Significance Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Winter Operational Emissions (lb/day)

Emissions Source	VOC	NO_x	CO	SO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
	Pounds per Day					
Area	3.64	-	-	-	-	-
Energy	0.04	0.67	0.57	< 0.005	0.05	0.05
Mobile	1.97	21.60	10.20	0.20	3.80	1.09
Stationary (Fire Pump)	0.02	0.05	0.06	< 0.005	< 0.005	< 0.005
Total	**5.67**	**22.32**	**10.83**	**0.20**	**3.85**	**1.14**
SCAQMD Significance Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Max Daily Operational Emissions (lb/day)

Activity	VOC	NOx	CO	SOx	PM10 (Total)	PM2.5 (Total)
Overall Operation	6.90	22.32	19.42	0.20	3.86	1.15
Season	Summer	Winter	Summer	Same	Summer	Summer
SCAQMD Significance Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Project Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Localized Daily Project Construction Emissions

Model File: Perris Ramona Expressway Warehouse Main Site LST
Timestamp: 6/11/2022
Model File: Perris Ramona Expressway Warehouse Frontage Improvement LST
Timestamp: 6/11/2022

Summer Construction Emissions (lb/day)

Year	Activity	NO_x	CO	PM_{10} (Total)	$PM_{2.5}$ (Total)
2022	**Main Site Construction**	44.6	37.7	9.69	5.78
2022	**Frontage Construction**	16.8	14.2	3.25	1.92
2022	**Total**	**61.4**	**51.9**	**12.94**	**7.7**
2023	**Main Site Construction**	24.9	29.7	1.2	1.09
2023	**Frontage Construction**	0	0	0	0
2023	**Total**	**24.9**	**29.7**	**1.2**	**1.09**

Winter Construction Emissions (lb/day)

Year	Activity	NOx	CO	PM10	PM2.5
2022	**Main Site Construction**	44.7	37.7	9.69	5.78
2022	**Frontage Construction**	20.3	17.9	3.74	2.23
2022	**Total**	**65**	**55.6**	**13.43**	**8.01**
2023	**Main Site Construction**	15.9	18.3	0.74	0.67
2023	**Frontage Construction**	0.93	1.15	0.04	0.03
2023	**Total**	**16.83**	**19.45**	**0.78**	**0.7**

Maximum Daily Construction Emissions (lb/day)

Activity	NOx	CO	PM10	PM2.5
Overall Construction	65	55.6	13.43	8.01
Year	2022	2022	2022	2022
Season	Winter	Winter	Winter	Winter
SCAQMD LST	**264**	**2232**	**38**	**10**
Project Exceeds Threshold?	**No**	**No**	**No**	**No**

Project Localized Operational Emissions Summary

Model File: Perris Ramona Expressway Warehouse Main Site LST
Timestamp: 6/11/2022

Summer Operational Emissions (lb/day)

Emissions Source	NO_x	CO	PM_{10} (Total)	$PM_{2.5}$ (Total)
	Pounds per Day			
Area	0.06	7.19	0.01	0.01
Energy	0.67	0.57	0.05	0.05
Mobile	1.29	2.19	0.05	0.01
Stationary (Fire Pump)	0.05	0.06	< 0.005	< 0.005
Total	**2.07**	**10.01**	**0.11**	**0.07**
Localized Significance Thresholds	**264**	**2,232**	**10**	**3**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Winter Operational Emissions (lb/day)

Emissions Source	NO_x	CO	PM_{10} (Total)	$PM_{2.5}$ (Total)
	Pounds per Day			
Area	-	-	-	-
Energy	0.67	0.57	0.05	0.05
Mobile	1.36	2.36	0.05	0.01
Stationary (Fire Pump)	0.05	0.06	< 0.005	< 0.005
Total	**2.08**	**2.99**	**0.10**	**0.06**
Localized Significance Thresholds	**264**	**2,232**	**10**	**3**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Max Daily Operational Emissions (lb/day)

Activity	NOx	CO	PM10 (Total)	PM2.5 (Total)
Overall Operation	2.08	10.01	0.11	0.07
Season	Winter	Summer	Summer	Summer
SCAQMD Significance Thresholds	**264**	**2,232**	**10**	**3**
Project Exceeds Threshold?	**No**	**No**	**No**	**No**

Project Operational GHG Emissions Summary

Construction - GHG Emissions

CalEEMod Run:

Emissions Source	CO_2e
	Metric Tons per Year
Main Site Demolition 2022	77
Main Site Site Preparation 2022	53
Main Site Grading 2022	29
Main Site Building Construction 2022	85
Main Site Building Construction 2023	293
Main Site Paving 2023	16
Main Site Architectural Coating 2023	3
Frontage Site Preparation 2022	10
Frontage Grading	25
Frontage Paving	11
Frontage Architectural Coating 2022	1
Frontage Architectural Coating 2023	0.17
Total	**603**
Amortized Over 30 Years	20

Operations - GHG Emissions

CalEEMod Run: Annual

Emissions Source	CO_2e
	Metric Tons per Year
Amortized Construction	20
Mobile	3,608
Area	3
Energy	334
Water	94
Waste	35
Refrigerant	708
Stationary	2
Total	**4,804**
SCAQMD Industrial Land Use Significance Threshold	10,000
Exceeds Threshold?	**No**

Perris Ramona Expressway Warehouse Main Site v2 Custom Report

Table of Contents

5.15. Operational Off-Road Equipment

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.17. User Defined

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Main Site v2
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.843593, -117.24055
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Unrefrigerated Warehouse-No Rail	160	1000sqft	3.68	160,371	0.00	—	—	—
General Office Building	5.00	1000sqft	0.11	5,000	0.00	—	—	—

Parking Lot	119	1000sqft	2.74	0.00	41,155	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

2. Emissions Summary

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	5.42	4.46	52.3	40.3	0.09	2.10	9.40	11.5	1.94	4.41	6.35	—	11,462	11,462	0.37	0.98	13.5	11,778
2023	3.81	20.5	26.0	37.7	0.05	1.19	1.51	2.70	1.09	0.36	1.46	—	7,084	7,084	0.27	0.21	8.53	7,163
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	5.41	4.45	52.6	39.9	0.09	2.10	9.40	11.5	1.94	4.41	6.35	—	11,442	11,442	0.37	0.98	0.35	11,745
2023	2.40	2.03	17.0	22.4	0.04	0.74	1.13	1.87	0.68	0.28	0.96	—	4,934	4,934	0.19	0.19	0.17	4,995
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.78	0.65	6.61	6.14	0.01	0.28	0.80	1.08	0.26	0.27	0.53	—	1,443	1,443	0.05	0.09	0.75	1,472
2023	0.93	1.73	6.52	8.73	0.01	0.29	0.42	0.71	0.26	0.10	0.37	—	1,863	1,863	0.07	0.07	1.07	1,887
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.14	0.12	1.21	1.12	< 0.005	0.05	0.15	0.20	0.05	0.05	0.10	—	239	239	0.01	0.01	0.12	244
2023	0.17	0.32	1.19	1.59	< 0.005	0.05	0.08	0.13	0.05	0.02	0.07	—	309	309	0.01	0.01	0.18	312

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	2.39	2.02	20.7	11.6	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,977	20,977	0.33	2.95	63.9	21,927
Area	1.28	4.82	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	3.76	6.90	21.5	19.4	0.20	0.40	3.46	3.86	0.39	0.77	1.16	150	23,370	23,520	15.6	3.12	4,338	29,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.34	1.97	21.6	10.2	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,864	20,864	0.33	2.95	1.66	21,753
Area	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	2.43	5.66	22.3	10.9	0.20	0.39	3.46	3.85	0.38	0.77	1.15	150	23,227	23,377	15.6	3.12	4,276	28,974
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	2.32	1.95	21.9	10.5	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,879	20,879	0.33	2.95	27.6	21,794
Area	0.88	4.45	0.04	4.92	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.3
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Total	3.29	6.45	22.7	16.0	0.20	0.40	3.46	3.86	0.38	0.77	1.16	150	23,263	23,413	15.6	3.12	4,302	29,037
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.42	0.36	4.00	1.91	0.04	0.06	0.63	0.69	0.06	0.14	0.20	—	3,457	3,457	0.05	0.49	4.57	3,608
Area	0.16	0.81	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Energy	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	332	332	0.02	< 0.005	—	334
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105
Waste	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
Stationary	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	0.60	1.18	4.14	2.92	0.04	0.07	0.63	0.70	0.07	0.14	0.21	24.8	3,852	3,876	2.59	0.52	712	4,807

3. Construction Emissions Details

3.2. Demolition (2022) - 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	3.59	3.02	29.6	24.3	0.03	1.31	—	1.31	1.21	—	1.21	—	3,422	3,422	0.14	0.03	—	3,434
Demolition	—	—	—	—	—	—	3.54	3.54	—	0.54	0.54	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.62	1.33	< 0.005	0.07	—	0.07	0.07	—	0.07	—	187	187	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.0	31.0	< 0.005	< 0.005	—	31.1
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.09	1.47	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	225	225	0.01	0.01	1.03	228
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.13	6.83	1.43	0.03	0.08	0.31	0.40	0.08	0.11	0.20	—	4,591	4,591	0.11	0.72	9.54	4,819

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.39	0.08	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	252	252	0.01	0.04	0.23	264
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	41.7	41.7	< 0.005	0.01	0.04	43.7

3.4. Site Preparation (2022) - 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	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.19	1.01	< 0.005	0.05	—	0.05	0.05	—	0.05	—	145	145	0.01	< 0.005	—	145
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.11	1.72	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	262	262	0.01	0.01	1.20	266
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.31	0.16	8.80	1.85	0.04	0.11	0.40	0.51	0.11	0.15	0.25	—	5,909	5,909	0.14	0.93	12.3	6,203

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.12	1.30	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	241	241	0.01	0.01	0.03	244
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.31	0.16	9.17	1.88	0.04	0.11	0.40	0.51	0.11	0.15	0.25	—	5,910	5,910	0.14	0.93	0.32	6,192
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.68	6.68	< 0.005	< 0.005	0.01	6.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.25	0.05	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	162	162	< 0.005	0.03	0.15	170
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.11	1.11	< 0.005	< 0.005	< 0.005	1.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.8	26.8	< 0.005	< 0.005	0.02	28.1

3.6. Grading (2022) - 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	2.62	2.20	22.0	20.2	0.03	1.06	—	1.06	0.98	—	0.98	—	2,956	2,956	0.12	0.02	—	2,966

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.21	1.10	< 0.005	0.06	—	0.06	0.05	—	0.05	—	162	162	0.01	< 0.005	—	163
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.12	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	206	206	0.01	0.01	0.03	209
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.5	11.5	< 0.005	< 0.005	0.02	11.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.90	1.90	< 0.005	< 0.005	< 0.005	1.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2022) - 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	2.16	1.81	17.2	17.8	0.03	0.86	—	0.86	0.79	—	0.79	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.75	1.81	< 0.005	0.09	—	0.09	0.08	—	0.08	—	321	321	0.01	< 0.005	—	322
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—		—

Off-Road Equipment	0.04	0.03	0.32	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	53.1	53.1	< 0.005	< 0.005	—	53.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.43	0.36	0.46	5.13	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	949	949	0.04	0.03	0.12	960
Vendor	0.05	0.03	1.31	0.35	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	857	857	0.02	0.13	0.06	897
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.05	0.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	97.8	97.8	< 0.005	< 0.005	0.21	99.2
Vendor	0.01	< 0.005	0.13	0.03	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	87.2	87.2	< 0.005	0.01	0.10	91.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	16.2	16.2	< 0.005	< 0.005	0.03	16.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.4	14.4	< 0.005	< 0.005	0.02	15.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2023) - 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	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.59	5.50	6.13	0.01	0.26	—	0.26	0.24	—	0.24	—	1,116	1,116	0.05	0.01	—	1,120
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.00	1.12	< 0.005	0.05	—	0.05	0.04	—	0.04	—	185	185	0.01	< 0.005	—	185
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.40	0.37	0.36	6.25	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	1,013	1,013	0.04	0.03	4.34	1,029
Vendor	0.04	0.03	0.99	0.31	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	851	851	0.02	0.13	2.37	892
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.38	0.35	0.42	4.74	0.00	0.00	0.06	0.06	0.00	0.00	0.00	—	931	931	0.04	0.03	0.11	942
Vendor	0.04	0.02	1.04	0.32	0.01	0.01	0.05	0.06	0.01	0.02	0.03	—	852	852	0.02	0.13	0.06	890
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.76	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	334	334	0.02	0.01	0.66	339
Vendor	0.02	0.01	0.37	0.11	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	302	302	0.01	0.04	0.36	316
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.03	0.32	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	55.3	55.3	< 0.005	< 0.005	0.11	56.1
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	49.9	49.9	< 0.005	0.01	0.06	52.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2023) - 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	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.44	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.36	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	220	220	0.01	0.01	0.94	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.2	11.2	< 0.005	< 0.005	0.02	11.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	16.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	1.25	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	203	203	0.01	0.01	0.87	206
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.3	10.3	< 0.005	< 0.005	0.02	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.71	1.71	< 0.005	< 0.005	< 0.005	1.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.06	0.73	20.3	5.20	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,484	19,484	0.28	2.91	57.6	20,415
General Office Building	1.34	1.30	0.37	6.35	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,493	1,493	0.04	0.04	6.29	1,512
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.39	2.02	20.7	11.6	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,977	20,977	0.33	2.95	63.9	21,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.04	0.71	21.2	5.19	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,486	19,486	0.28	2.91	1.49	20,362
General Office Building	1.29	1.25	0.41	5.05	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,377	1,377	0.05	0.04	0.16	1,391
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.34	1.97	21.6	10.2	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,864	20,864	0.33	2.95	1.66	21,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	0.19	0.13	3.92	0.94	0.03	0.06	0.25	0.31	0.06	0.08	0.14	—	3,226	3,226	0.05	0.48	4.12	3,375
General Office Building	0.23	0.23	0.08	0.96	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	231	231	0.01	0.01	0.45	234
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.42	0.36	4.00	1.91	0.04	0.06	0.27	0.33	0.06	0.09	0.14	—	3,457	3,457	0.05	0.49	4.57	3,608

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehou Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.01	< 0.005	—	179
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.01	< 0.005	—	200

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756

General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.52
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	134

4.3. Area Emissions by Source

4.3.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.28	1.18	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	1.28	21.7	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	0.16	0.15	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Total	0.16	0.98	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37

4.4. Water Emissions by Land Use

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.7	55.3	65.9	1.10	0.03	—	101
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.26	1.32	1.58	0.03	< 0.005	—	2.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.84	0.84	< 0.005	< 0.005	—	0.84
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105

4.5. Waste Emissions by Land Use

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5

4.6. Refrigerant Emissions by Land Use

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708

4.7. Offroad Emissions By Equipment Type

4.7.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.2. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

4.9. User Defined Emissions By Equipment Type

4.9.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2022	9/28/2022	5.00	20.0	—
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5.00	10.0	—
Grading	Grading	10/13/2022	11/9/2022	5.00	20.0	—
Building Construction	Building Construction	11/10/2022	6/30/2023	5.00	167	—
Paving	Paving	6/1/2023	6/28/2023	5.00	20.0	—
Architectural Coating	Architectural Coating	6/1/2023	6/28/2023	5.00	20.0	—

5.2. Off-Road Equipment

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	9.20	367	0.29
Building Construction	Forklifts	Diesel	Average	4.00	7.90	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	10.5	14.0	0.74

Building Construction	Tractors/Loaders/Backh	Diesel	Average	3.00	9.20	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	10.5	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	64.1	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	82.5	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—

Building Construction	Worker	69.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	27.1	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	13.8	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00	0.00	49,088	16,363	7,509

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,125	—
Site Preparation	6,600	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.74

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

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Parking Lot	2.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2022	0.00	532	0.03	< 0.005
2023	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.2. Mitigated

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)
0	0.00	50,687	16,896	7,169

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value

Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

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)
Unrefrigerated Warehouse-No Rail	738,084	532	0.0330	0.0040	2,352,181
General Office Building	87,216	532	0.0330	0.0040	160,115
Parking Lot	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	33,636,815	0.00
General Office Building	806,023	0.00
Parking Lot	0.00	652,542

5.13. Operational Waste Generation

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	151	0.00
General Office Building	4.65	0.00
Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	0.05	20.0	100	0.73

5.17. User Defined

Equipment Type	Fuel Type
—	—

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on project applicant's inputs, the project would start in September 2022 and conclude in second quarter of 2023.
Operations: Fleet Mix	The vehicle trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment and fleet mix calculation sheets in the appendix.
Operations: Vehicle Data	Number of trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix. Truck trip length is set to be 78 miles, which is the distance between the Port of Long Beach and the proposed project.
Construction: Off-Road Equipment	The Building Construction Phase is shortened based on project schedule, the equipment hours are adjusted to conserve the same horsepower hours with that of the CalEEMod default horsepower. Please see the appendix for details.
Construction: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum architectural coating that is needed.
Operations: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum coating reapplication that is needed.

Perris Ramona Expressway Warehouse Frontage Improvement v2 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Frontage Improvement v2
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.844601, -117.24074
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Other Asphalt Surfaces	1.42	Acre	1.42	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

2. Emissions Summary

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.03	1.71	16.8	14.8	0.02	0.81	2.54	3.35	0.74	1.19	1.94	—	2,174	2,174	0.09	0.02	0.52	2,183
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.50	2.10	20.4	18.7	0.02	0.97	2.93	3.90	0.89	1.37	2.27	—	2,765	2,765	0.11	0.03	0.02	2,776
2023	0.18	1.87	0.93	1.15	< 0.005	0.04	0.00	0.04	0.03	0.00	0.03	—	134	134	0.01	< 0.005	0.00	134
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.24	0.30	1.92	1.90	< 0.005	0.09	0.24	0.33	0.09	0.11	0.20	—	281	281	0.01	< 0.005	0.05	282
2023	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	1.05	1.05	< 0.005	< 0.005	0.00	1.05
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.04	0.05	0.35	0.35	< 0.005	0.02	0.04	0.06	0.02	0.02	0.04	—	46.5	46.5	< 0.005	< 0.005	0.01	46.7
2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	0.17	0.17	< 0.005	< 0.005	0.00	0.17

3. Construction Emissions Details

3.2. Site Preparation (2022) - 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	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.46	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.5	56.5	< 0.005	< 0.005	—	56.7
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.35	9.35	< 0.005	< 0.005	—	9.38
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.74	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	112	112	< 0.005	< 0.005	0.52	114
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.56	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	103	103	< 0.005	< 0.005	0.01	104
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.86	2.86	< 0.005	< 0.005	0.01	2.90
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2022) - 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	2.42	2.03	20.3	17.8	0.02	0.97	—	0.97	0.89	—	0.89	—	2,593	2,593	0.11	0.02	—	2,602
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.11	0.97	< 0.005	0.05	—	0.05	0.05	—	0.05	—	142	142	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6

Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.93	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	172	172	0.01	0.01	0.02	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.55	9.55	< 0.005	< 0.005	0.02	9.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.58	1.58	< 0.005	< 0.005	< 0.005	1.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Paving (2022) - 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	0.70	0.59	5.39	6.56	0.01	0.29	—	0.29	0.26	—	0.26	—	992	992	0.04	0.01	—	995
Paving	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.36	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.3	54.3	< 0.005	< 0.005	—	54.5
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.00	9.00	< 0.005	< 0.005	—	9.03
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	0.93	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	172	172	0.01	0.01	0.02	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.55	9.55	< 0.005	< 0.005	0.02	9.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.58	1.58	< 0.005	< 0.005	< 0.005	1.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Architectural Coating (2022) - 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	0.19	0.16	0.96	1.17	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.27	6.27	< 0.005	< 0.005	—	6.29
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.04	1.04	< 0.005	< 0.005	—	1.04
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	—	1.05
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17

Architect Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on project applicant's inputs, the project would start in September 2022 and end in the second quarter of 2023. In addition, the demolition and site preparation are removed from this model. Therefore, the frontage construction schedule is adjusted as above.

Operations: Fleet Mix	The vehicle trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix.
Operations: Vehicle Data	Number of trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix. Truck trip length is set to be 78 miles, which is the distance between the Port of Long Beach and the proposed project.

Perris Ramona Expressway Warehouse Main Site LST Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Main Site LST
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.843593, -117.24055
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Unrefrigerated Warehouse-No Rail	160	1000sqft	3.68	160,371	0.00	—	—	—
General Office Building	5.00	1000sqft	0.11	5,000	0.00	—	—	—

Parking Lot	119	1000sqft	2.74	0.00	41,155	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

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.	5.17	20.4	44.6	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,511	5,511	0.25	0.08	0.17	5,541
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.16	4.32	44.7	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,512	5,512	0.25	0.08	< 0.005	5,542
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.88	1.69	6.12	7.12	0.01	0.28	0.56	0.83	0.26	0.21	0.46	—	1,233	1,233	0.06	0.01	0.02	1,239
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.31	1.12	1.30	< 0.005	0.05	0.10	0.15	0.05	0.04	0.08	—	204	204	0.01	< 0.005	< 0.005	205

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	5.17	4.33	44.6	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,511	5,511	0.25	0.08	0.17	5,541
2023	3.63	20.4	24.9	29.7	0.05	1.18	0.02	1.20	1.08	0.01	1.09	—	4,882	4,882	0.22	0.06	0.14	4,904
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	5.16	4.32	44.7	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,512	5,512	0.25	0.08	< 0.005	5,542
2023	2.27	1.93	15.9	18.3	0.03	0.73	0.02	0.74	0.67	< 0.005	0.67	—	3,226	3,226	0.15	0.04	< 0.005	3,241
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.74	0.63	5.89	5.45	0.01	0.27	0.56	0.83	0.25	0.21	0.46	—	839	839	0.04	0.01	0.01	843
2023	0.88	1.69	6.12	7.12	0.01	0.28	0.01	0.29	0.26	< 0.005	0.26	—	1,233	1,233	0.06	0.01	0.02	1,239
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.14	0.11	1.07	0.99	< 0.005	0.05	0.10	0.15	0.05	0.04	0.08	—	139	139	0.01	< 0.005	< 0.005	140
2023	0.16	0.31	1.12	1.30	< 0.005	0.05	< 0.005	0.05	0.05	< 0.005	0.05	—	204	204	0.01	< 0.005	< 0.005	205

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	5.17	4.33	44.6	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,511	5,511	0.25	0.08	0.17	5,541
2023	3.63	20.4	24.9	29.7	0.05	1.18	0.02	1.20	1.08	0.01	1.09	—	4,882	4,882	0.22	0.06	0.14	4,904
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2022	5.16	4.32	44.7	37.7	0.05	1.99	7.70	9.69	1.83	3.95	5.78	—	5,512	5,512	0.25	0.08	< 0.005	5,542
2023	2.27	1.93	15.9	18.3	0.03	0.73	0.02	0.74	0.67	< 0.005	0.67	—	3,226	3,226	0.15	0.04	< 0.005	3,241
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.74	0.63	5.89	5.45	0.01	0.27	0.56	0.83	0.25	0.21	0.46	—	839	839	0.04	0.01	0.01	843
2023	0.88	1.69	6.12	7.12	0.01	0.28	0.01	0.29	0.26	< 0.005	0.26	—	1,233	1,233	0.06	0.01	0.02	1,239
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.14	0.11	1.07	0.99	< 0.005	0.05	0.10	0.15	0.05	0.04	0.08	—	139	139	0.01	< 0.005	< 0.005	140
2023	0.16	0.31	1.12	1.30	< 0.005	0.05	< 0.005	0.05	0.05	< 0.005	0.05	—	204	204	0.01	< 0.005	< 0.005	205

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.	3.76	6.90	21.5	19.4	0.20	0.40	3.46	3.86	0.39	0.77	1.16	157	23,405	23,562	16.3	3.14	4,338	29,242
Mit.	3.76	6.90	21.5	19.4	0.20	0.40	3.46	3.86	0.39	0.77	1.16	150	23,370	23,520	15.6	3.12	4,338	29,178
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.43	5.66	22.3	10.9	0.20	0.39	3.46	3.85	0.38	0.77	1.15	157	23,262	23,419	16.3	3.14	4,276	29,038
Mit.	2.43	5.66	22.3	10.9	0.20	0.39	3.46	3.85	0.38	0.77	1.15	150	23,227	23,377	15.6	3.12	4,276	28,974
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	3.29	6.45	22.7	16.0	0.20	0.40	3.46	3.86	0.38	0.77	1.16	157	23,299	23,455	16.3	3.14	4,302	29,101
Mit.	3.29	6.45	22.7	16.0	0.20	0.40	3.46	3.86	0.38	0.77	1.16	150	23,263	23,413	15.6	3.12	4,302	29,037
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.60	1.18	4.14	2.92	0.04	0.07	0.63	0.70	0.07	0.14	0.21	25.9	3,857	3,883	2.70	0.52	712	4,818
Mit.	0.60	1.18	4.14	2.92	0.04	0.07	0.63	0.70	0.07	0.14	0.21	24.8	3,852	3,876	2.59	0.52	712	4,807
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%

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	2.39	2.02	20.7	11.6	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,977	20,977	0.33	2.95	63.9	21,927
Area	1.28	4.82	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	3.76	6.90	21.5	19.4	0.20	0.40	3.46	3.86	0.39	0.77	1.16	157	23,405	23,562	16.3	3.14	4,338	29,242
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.34	1.97	21.6	10.2	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,864	20,864	0.33	2.95	1.66	21,753

Area	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	2.43	5.66	22.3	10.9	0.20	0.39	3.46	3.85	0.38	0.77	1.15	157	23,262	23,419	16.3	3.14	4,276	29,038
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.32	1.95	21.9	10.5	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,879	20,879	0.33	2.95	27.6	21,794
Area	0.88	4.45	0.04	4.92	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.3
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Total	3.29	6.45	22.7	16.0	0.20	0.40	3.46	3.86	0.38	0.77	1.16	157	23,299	23,455	16.3	3.14	4,302	29,101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.42	0.36	4.00	1.91	0.04	0.06	0.63	0.69	0.06	0.14	0.20	—	3,457	3,457	0.05	0.49	4.57	3,608
Area	0.16	0.81	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Energy	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	332	332	0.02	< 0.005	—	334
Water	—	—	—	—	—	—	—	—	—	—	—	12.0	63.2	75.3	1.24	0.03	—	115
Waste	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
Stationary	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	0.60	1.18	4.14	2.92	0.04	0.07	0.63	0.70	0.07	0.14	0.21	25.9	3,857	3,883	2.70	0.52	712	4,818

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	2.39	2.02	20.7	11.6	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,977	20,977	0.33	2.95	63.9	21,927
Area	1.28	4.82	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	3.76	6.90	21.5	19.4	0.20	0.40	3.46	3.86	0.39	0.77	1.16	150	23,370	23,520	15.6	3.12	4,338	29,178
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.34	1.97	21.6	10.2	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,864	20,864	0.33	2.95	1.66	21,753
Area	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	2.43	5.66	22.3	10.9	0.20	0.39	3.46	3.85	0.38	0.77	1.15	150	23,227	23,377	15.6	3.12	4,276	28,974
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	2.32	1.95	21.9	10.5	0.20	0.34	3.46	3.80	0.32	0.77	1.09	—	20,879	20,879	0.33	2.95	27.6	21,794
Area	0.88	4.45	0.04	4.92	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.3
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Total	3.29	6.45	22.7	16.0	0.20	0.40	3.46	3.86	0.38	0.77	1.16	150	23,263	23,413	15.6	3.12	4,302	29,037
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.42	0.36	4.00	1.91	0.04	0.06	0.63	0.69	0.06	0.14	0.20	—	3,457	3,457	0.05	0.49	4.57	3,608
Area	0.16	0.81	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Energy	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	332	332	0.02	< 0.005	—	334
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105
Waste	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
Stationary	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	0.60	1.18	4.14	2.92	0.04	0.07	0.63	0.70	0.07	0.14	0.21	24.8	3,852	3,876	2.59	0.52	712	4,807

3. Construction Emissions Details

3.1. Demolition (2022) - 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	3.59	3.02	29.6	24.3	0.03	1.31	—	1.31	1.21	—	1.21	—	3,422	3,422	0.14	0.03	—	3,434
Demolition	—	—	—	—	—	—	3.54	3.54	—	0.54	0.54	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.62	1.33	< 0.005	0.07	—	0.07	0.07	—	0.07	—	187	187	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.0	31.0	< 0.005	< 0.005	—	31.1
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.82	5.82	< 0.005	< 0.005	0.01	6.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	0.04	0.97	0.60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	166	166	0.03	0.03	0.12	174

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.10	9.10	< 0.005	< 0.005	< 0.005	9.58
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.59

3.2. Demolition (2022) - 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	3.59	3.02	29.6	24.3	0.03	1.31	—	1.31	1.21	—	1.21	—	3,422	3,422	0.14	0.03	—	3,434
Demolition	—	—	—	—	—	—	3.54	3.54	—	0.54	0.54	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.20	0.17	1.62	1.33	< 0.005	0.07	—	0.07	0.07	—	0.07	—	187	187	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.0	31.0	< 0.005	< 0.005	—	31.1
Demolition	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.82	5.82	< 0.005	< 0.005	0.01	6.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.08	0.04	0.97	0.60	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	166	166	0.03	0.03	0.12	174
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.10	9.10	< 0.005	< 0.005	< 0.005	9.58
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.59

3.3. Site Preparation (2022) - 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	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.19	1.01	< 0.005	0.05	—	0.05	0.05	—	0.05	—	145	145	0.01	< 0.005	—	145
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.02	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.79	6.79	< 0.005	< 0.005	0.02	7.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.06	1.25	0.77	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	213	213	0.04	0.03	0.15	224
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	< 0.005	7.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.05	1.30	0.80	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	214	214	0.04	0.04	< 0.005	225
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.85	5.85	< 0.005	< 0.005	< 0.005	6.17
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02

3.4. Site Preparation (2022) - 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	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.99	4.20	43.4	36.7	0.05	1.99	—	1.99	1.83	—	1.83	—	5,291	5,291	0.21	0.04	—	5,309
Dust From Material Movement	—	—	—	—	—	—	7.68	7.68	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	1.19	1.01	< 0.005	0.05	—	0.05	0.05	—	0.05	—	145	145	0.01	< 0.005	—	145

Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.22	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.02	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.79	6.79	< 0.005	< 0.005	0.02	7.40
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.10	0.06	1.25	0.77	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	213	213	0.04	0.03	0.15	224
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	< 0.005	7.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.05	1.30	0.80	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	214	214	0.04	0.04	< 0.005	225
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.85	5.85	< 0.005	< 0.005	< 0.005	6.17

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.03	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02

3.5. Grading (2022) - 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	2.62	2.20	22.0	20.2	0.03	1.06	—	1.06	0.98	—	0.98	—	2,956	2,956	0.12	0.02	—	2,966
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.21	1.10	< 0.005	0.06	—	0.06	0.05	—	0.05	—	162	162	0.01	< 0.005	—	163
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.63	5.63	< 0.005	< 0.005	< 0.005	6.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Grading (2022) - 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	2.62	2.20	22.0	20.2	0.03	1.06	—	1.06	0.98	—	0.98	—	2,956	2,956	0.12	0.02	—	2,966
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.21	1.10	< 0.005	0.06	—	0.06	0.05	—	0.05	—	162	162	0.01	< 0.005	—	163
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.19	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.63	5.63	< 0.005	< 0.005	< 0.005	6.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2022) - 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	2.16	1.81	17.2	17.8	0.03	0.86	—	0.86	0.79	—	0.79	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.75	1.81	< 0.005	0.09	—	0.09	0.08	—	0.08	—	321	321	0.01	< 0.005	—	322
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	53.1	53.1	< 0.005	< 0.005	—	53.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.28	0.07	0.86	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.9	25.9	0.02	0.01	< 0.005	28.2
Vendor	0.02	0.01	0.30	0.18	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	49.8	49.8	0.01	0.01	< 0.005	52.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.65	2.65	< 0.005	< 0.005	< 0.005	2.89
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.06	5.06	< 0.005	< 0.005	< 0.005	5.32
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.48

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2022) - 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	2.16	1.81	17.2	17.8	0.03	0.86	—	0.86	0.79	—	0.79	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.75	1.81	< 0.005	0.09	—	0.09	0.08	—	0.08	—	321	321	0.01	< 0.005	—	322
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	—	53.1	53.1	< 0.005	< 0.005	—	53.3
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.28	0.07	0.86	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.9	25.9	0.02	0.01	< 0.005	28.2
Vendor	0.02	0.01	0.30	0.18	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	49.8	49.8	0.01	0.01	< 0.005	52.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.65	2.65	< 0.005	< 0.005	< 0.005	2.89
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.06	5.06	< 0.005	< 0.005	< 0.005	5.32
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.48
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.84	0.84	< 0.005	< 0.005	< 0.005	0.88
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2023) - 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	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.59	5.50	6.13	0.01	0.26	—	0.26	0.24	—	0.24	—	1,116	1,116	0.05	0.01	—	1,120
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.00	1.12	< 0.005	0.05	—	0.05	0.04	—	0.04	—	185	185	0.01	< 0.005	—	185
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.29	0.06	0.70	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	26.2	26.2	0.01	0.01	0.06	28.5
Vendor	0.02	0.01	0.29	0.18	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	48.4	48.4	0.01	0.01	0.06	50.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.27	0.06	0.80	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	0.02	0.01	< 0.005	27.7
Vendor	0.02	0.01	0.30	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	48.9	48.9	0.01	0.01	< 0.005	51.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.03	9.03	0.01	< 0.005	0.01	9.87
Vendor	0.01	< 0.005	0.10	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.01	18.1

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.63
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.85	2.85	< 0.005	< 0.005	< 0.005	3.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2023) - 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	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.98	1.65	15.5	17.3	0.03	0.73	—	0.73	0.67	—	0.67	—	3,151	3,151	0.13	0.03	—	3,162
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.59	5.50	6.13	0.01	0.26	—	0.26	0.24	—	0.24	—	1,116	1,116	0.05	0.01	—	1,120
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	1.00	1.12	< 0.005	0.05	—	0.05	0.04	—	0.04	—	185	185	0.01	< 0.005	—	185
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.29	0.06	0.70	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	26.2	26.2	0.01	0.01	0.06	28.5
Vendor	0.02	0.01	0.29	0.18	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	48.4	48.4	0.01	0.01	0.06	50.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.27	0.06	0.80	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	0.02	0.01	< 0.005	27.7
Vendor	0.02	0.01	0.30	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	48.9	48.9	0.01	0.01	< 0.005	51.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.03	9.03	0.01	< 0.005	0.01	9.87
Vendor	0.01	< 0.005	0.10	0.06	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.2	17.2	< 0.005	< 0.005	0.01	18.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.63
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.85	2.85	< 0.005	< 0.005	< 0.005	3.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2023) - 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	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.44	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.15	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.70	5.70	< 0.005	< 0.005	0.01	6.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Paving (2023) - 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	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.06	0.05	0.44	0.55	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.15	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.70	5.70	< 0.005	< 0.005	0.01	6.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.30	0.30	< 0.005	< 0.005	< 0.005	0.33
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	16.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.24	5.24	< 0.005	< 0.005	0.01	5.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	16.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	0.93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.24	5.24	< 0.005	< 0.005	0.01	5.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.06	0.73	20.3	5.20	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,484	19,484	0.28	2.91	57.6	20,415
General Office Building	1.34	1.30	0.37	6.35	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,493	1,493	0.04	0.04	6.29	1,512

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.39	2.02	20.7	11.6	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,977	20,977	0.33	2.95	63.9	21,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.04	0.71	21.2	5.19	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,486	19,486	0.28	2.91	1.49	20,362
General Office Building	1.29	1.25	0.41	5.05	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,377	1,377	0.05	0.04	0.16	1,391
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.34	1.97	21.6	10.2	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,864	20,864	0.33	2.95	1.66	21,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.19	0.13	3.92	0.94	0.03	0.06	0.25	0.31	0.06	0.08	0.14	—	3,226	3,226	0.05	0.48	4.12	3,375
General Office Building	0.23	0.23	0.08	0.96	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	231	231	0.01	0.01	0.45	234
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.42	0.36	4.00	1.91	0.04	0.06	0.27	0.33	0.06	0.09	0.14	—	3,457	3,457	0.05	0.49	4.57	3,608

4.1.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.06	0.73	20.3	5.20	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,484	19,484	0.28	2.91	57.6	20,415
General Office Building	1.34	1.30	0.37	6.35	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,493	1,493	0.04	0.04	6.29	1,512
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.39	2.02	20.7	11.6	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,977	20,977	0.33	2.95	63.9	21,927
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.04	0.71	21.2	5.19	0.18	0.33	1.39	1.72	0.32	0.45	0.76	—	19,486	19,486	0.28	2.91	1.49	20,362
General Office Building	1.29	1.25	0.41	5.05	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,377	1,377	0.05	0.04	0.16	1,391
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.34	1.97	21.6	10.2	0.20	0.34	1.46	1.79	0.32	0.47	0.79	—	20,864	20,864	0.33	2.95	1.66	21,753
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.19	0.13	3.92	0.94	0.03	0.06	0.25	0.31	0.06	0.08	0.14	—	3,226	3,226	0.05	0.48	4.12	3,375

General Office Building	0.23	0.23	0.08	0.96	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	231	231	0.01	0.01	0.45	234
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.42	0.36	4.00	1.91	0.04	0.06	0.27	0.33	0.06	0.09	0.14	—	3,457	3,457	0.05	0.49	4.57	3,608

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.01	< 0.005	—	179
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.01	< 0.005	—	200

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.01	< 0.005	—	179
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.01	< 0.005	—	200

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125

General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.52
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	134

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756

General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.52
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	134

4.3. Area Emissions by Source

4.3.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	1.28	1.18	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	1.28	21.7	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Total	0.16	0.98	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37

4.3.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.28	1.18	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	1.28	21.7	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Total	0.16	0.98	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	71.1	368	439	7.31	0.18	—	674
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.70	8.82	10.5	0.18	< 0.005	—	16.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	71.1	368	439	7.31	0.18	—	674
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.70	8.82	10.5	0.18	< 0.005	—	16.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	11.8	60.9	72.7	1.21	0.03	—	112
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.28	1.46	1.74	0.03	< 0.005	—	2.67
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.84	0.84	< 0.005	< 0.005	—	0.84
Total	—	—	—	—	—	—	—	—	—	—	—	12.0	63.2	75.3	1.24	0.03	—	115

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.7	55.3	65.9	1.10	0.03	—	101
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.26	1.32	1.58	0.03	< 0.005	—	2.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.84	0.84	< 0.005	< 0.005	—	0.84
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105

4.5. Waste Emissions by Land Use

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708

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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42

Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

4.8.2. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Demolition	Demolition	9/1/2022	9/28/2022	5.00	20.0	—
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5.00	10.0	—

Grading	Grading	10/13/2022	11/9/2022	5.00	20.0	—
Building Construction	Building Construction	11/10/2022	6/30/2023	5.00	167	—
Paving	Paving	6/1/2023	6/28/2023	5.00	20.0	—
Architectural Coating	Architectural Coating	6/1/2023	6/28/2023	5.00	20.0	—

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
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	9.20	367	0.29
Building Construction	Forklifts	Diesel	Average	4.00	7.90	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	10.5	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	9.20	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	10.5	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36

Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	9.20	367	0.29
Building Construction	Forklifts	Diesel	Average	4.00	7.90	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	10.5	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	9.20	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	10.5	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	0.25	LDA,LDT1,LDT2
Demolition	Vendor	—	0.25	HHDT,MHDT
Demolition	Hauling	64.1	0.25	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	0.25	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.25	HHDT,MHDT
Site Preparation	Hauling	82.5	0.25	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	0.25	LDA,LDT1,LDT2
Grading	Vendor	—	0.25	HHDT,MHDT
Grading	Hauling	0.00	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	69.0	0.25	LDA,LDT1,LDT2
Building Construction	Vendor	27.1	0.25	HHDT,MHDT
Building Construction	Hauling	0.00	0.25	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.25	LDA,LDT1,LDT2
Paving	Vendor	—	0.25	HHDT,MHDT

Paving	Hauling	0.00	0.25	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	13.8	0.25	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.25	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	0.25	LDA,LDT1,LDT2
Demolition	Vendor	—	0.25	HHDT,MHDT
Demolition	Hauling	64.1	0.25	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	0.25	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.25	HHDT,MHDT
Site Preparation	Hauling	82.5	0.25	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	0.25	LDA,LDT1,LDT2
Grading	Vendor	—	0.25	HHDT,MHDT
Grading	Hauling	0.00	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	69.0	0.25	LDA,LDT1,LDT2

Building Construction	Vendor	27.1	0.25	HHDT,MHDT
Building Construction	Hauling	0.00	0.25	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	0.25	LDA,LDT1,LDT2
Paving	Vendor	—	0.25	HHDT,MHDT
Paving	Hauling	0.00	0.25	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	13.8	0.25	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.25	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00	0.00	49,088	16,363	7,509

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	5,125	—
Site Preparation	6,600	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	2.74

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

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Parking Lot	2.74	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2022	0.00	532	0.03	< 0.005
2023	0.00	532	0.03	< 0.005

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
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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)
0	0.00	50,687	16,896	7,169

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
Unrefrigerated Warehouse-No Rail	738,084	532	0.0330	0.0040	2,352,181
General Office Building	87,216	532	0.0330	0.0040	160,115
Parking Lot	0.00	532	0.0330	0.0040	0.00

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)
Unrefrigerated Warehouse-No Rail	738,084	532	0.0330	0.0040	2,352,181
General Office Building	87,216	532	0.0330	0.0040	160,115
Parking Lot	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	37,085,794	0.00
General Office Building	888,669	0.00
Parking Lot	0.00	652,542

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	33,636,815	0.00
General Office Building	806,023	0.00
Parking Lot	0.00	652,542

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	151	0.00
General Office Building	4.65	0.00
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	151	0.00
General Office Building	4.65	0.00

Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	0.05	20.0	100	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.36	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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 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	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5

Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

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	36.04516874
Employed	38.00846914
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—

2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0

Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on project applicant's inputs, the project would start in September 2022 and conclude in second quarter of 2023.
Operations: Fleet Mix	The vehicle trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment and fleet mix calculation sheets in the appendix.
Operations: Vehicle Data	Number of trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix. Truck trip length is set to be 78 miles, which is the distance between the Port of Long Beach and the proposed project.
Construction: Off-Road Equipment	The Building Construction Phase is shortened based on project schedule, the equipment hours are adjusted to conserve the same horsepower hours with that of the CalEEMod default horsepower. Please see the appendix for details.

Construction: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum architectural coating that is needed.
Operations: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum coating reapplication that is needed.
Construction: Trips and VMT	Change all construction trip length to 0.25 mile to represent the on-site emissions.

Perris Ramona Expressway Warehouse Frontage Improvement LST Detailed Report

Table of Contents

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Frontage Improvement LST
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.844601, -117.24074
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Other Asphalt Surfaces	1.42	Acre	1.42	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

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.	2.01	1.70	16.8	14.2	0.02	0.81	2.44	3.25	0.74	1.17	1.92	—	2,065	2,065	0.09	0.02	0.01	2,072
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.47	2.08	20.3	17.9	0.02	0.97	2.76	3.74	0.89	1.34	2.23	—	2,598	2,598	0.11	0.02	< 0.005	2,607
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.29	1.91	1.79	< 0.005	0.09	0.22	0.31	0.09	0.11	0.19	—	260	260	0.01	< 0.005	< 0.005	261
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.05	0.35	0.33	< 0.005	0.02	0.04	0.06	0.02	0.02	0.03	—	43.0	43.0	< 0.005	< 0.005	< 0.005	43.2

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.01	1.70	16.8	14.2	0.02	0.81	2.44	3.25	0.74	1.17	1.92	—	2,065	2,065	0.09	0.02	0.01	2,072
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.47	2.08	20.3	17.9	0.02	0.97	2.76	3.74	0.89	1.34	2.23	—	2,598	2,598	0.11	0.02	< 0.005	2,607
2023	0.18	1.87	0.93	1.15	< 0.005	0.04	0.00	0.04	0.03	0.00	0.03	—	134	134	0.01	< 0.005	0.00	134
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.24	0.29	1.91	1.79	< 0.005	0.09	0.22	0.31	0.09	0.11	0.19	—	260	260	0.01	< 0.005	< 0.005	261
2023	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	1.05	1.05	< 0.005	< 0.005	0.00	1.05
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.04	0.05	0.35	0.33	< 0.005	0.02	0.04	0.06	0.02	0.02	0.03	—	43.0	43.0	< 0.005	< 0.005	< 0.005	43.2
2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	0.17	0.17	< 0.005	< 0.005	0.00	0.17

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.01	1.70	16.8	14.2	0.02	0.81	2.44	3.25	0.74	1.17	1.92	—	2,065	2,065	0.09	0.02	0.01	2,072
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	2.47	2.08	20.3	17.9	0.02	0.97	2.76	3.74	0.89	1.34	2.23	—	2,598	2,598	0.11	0.02	< 0.005	2,607
2023	0.18	1.87	0.93	1.15	< 0.005	0.04	0.00	0.04	0.03	0.00	0.03	—	134	134	0.01	< 0.005	0.00	134
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2022	0.24	0.29	1.91	1.79	< 0.005	0.09	0.22	0.31	0.09	0.11	0.19	—	260	260	0.01	< 0.005	< 0.005	261
2023	< 0.005	0.01	0.01	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	1.05	1.05	< 0.005	< 0.005	0.00	1.05
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2022	0.04	0.05	0.35	0.33	< 0.005	0.02	0.04	0.06	0.02	0.02	0.03	—	43.0	43.0	< 0.005	< 0.005	< 0.005	43.2
2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	—	0.17	0.17	< 0.005	< 0.005	0.00	0.17

3. Construction Emissions Details

3.1. Site Preparation (2022) - 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	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.46	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.5	56.5	< 0.005	< 0.005	—	56.7
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.35	9.35	< 0.005	< 0.005	—	9.38
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.91	2.91	< 0.005	< 0.005	0.01	3.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.81	2.81	< 0.005	< 0.005	< 0.005	3.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2022) - 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	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.98	1.67	16.8	14.1	0.02	0.81	—	0.81	0.74	—	0.74	—	2,062	2,062	0.08	0.02	—	2,069

Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.46	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.5	56.5	< 0.005	< 0.005	—	56.7
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.35	9.35	< 0.005	< 0.005	—	9.38
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.91	2.91	< 0.005	< 0.005	0.01	3.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.81	2.81	< 0.005	< 0.005	< 0.005	3.07
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2022) - 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	2.42	2.03	20.3	17.8	0.02	0.97	—	0.97	0.89	—	0.89	—	2,593	2,593	0.11	0.02	—	2,602
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.11	0.97	< 0.005	0.05	—	0.05	0.05	—	0.05	—	142	142	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.69	4.69	< 0.005	< 0.005	< 0.005	5.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Grading (2022) - 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	2.42	2.03	20.3	17.8	0.02	0.97	—	0.97	0.89	—	0.89	—	2,593	2,593	0.11	0.02	—	2,602
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.11	0.97	< 0.005	0.05	—	0.05	0.05	—	0.05	—	142	142	0.01	< 0.005	—	143
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.5	23.5	< 0.005	< 0.005	—	23.6
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.69	4.69	< 0.005	< 0.005	< 0.005	5.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Paving (2022) - 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	0.70	0.59	5.39	6.56	0.01	0.29	—	0.29	0.26	—	0.26	—	992	992	0.04	0.01	—	995
Paving	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.36	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.3	54.3	< 0.005	< 0.005	—	54.5
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.00	9.00	< 0.005	< 0.005	—	9.03
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.69	4.69	< 0.005	< 0.005	< 0.005	5.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Paving (2022) - 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	0.70	0.59	5.39	6.56	0.01	0.29	—	0.29	0.26	—	0.26	—	992	992	0.04	0.01	—	995
Paving	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.30	0.36	< 0.005	0.02	—	0.02	0.01	—	0.01	—	54.3	54.3	< 0.005	< 0.005	—	54.5
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.00	9.00	< 0.005	< 0.005	—	9.03
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.01	0.16	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.69	4.69	< 0.005	< 0.005	< 0.005	5.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.04	0.04	< 0.005	< 0.005	< 0.005	0.05

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Architectural Coating (2022) - 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	0.19	0.16	0.96	1.17	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.27	6.27	< 0.005	< 0.005	—	6.29
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.04	1.04	< 0.005	< 0.005	—	1.04

Architect Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Architectural Coating (2022) - 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	0.19	0.16	0.96	1.17	< 0.005	0.04	—	0.04	0.04	—	0.04	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.27	6.27	< 0.005	< 0.005	—	6.29
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.04	1.04	< 0.005	< 0.005	—	1.04
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	—	1.05
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Architectural Coating (2023) - 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	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	—	1.05
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	9/29/2022	10/12/2022	5.00	10.0	—
Grading	Grading	10/13/2022	11/9/2022	5.00	20.0	—
Paving	Paving	11/10/2022	12/7/2022	5.00	20.0	—
Architectural Coating	Architectural Coating	12/8/2022	1/4/2023	5.00	20.0	—

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	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

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	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	0.25	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	0.25	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	12.5	0.25	LDA,LDT1,LDT2
Grading	Vendor	—	0.25	HHDT,MHDT
Grading	Hauling	0.00	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	0.25	LDA,LDT1,LDT2
Paving	Vendor	—	0.25	HHDT,MHDT
Paving	Hauling	0.00	0.25	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	0.25	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.25	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	—	—	—	—
Site Preparation	Worker	7.50	0.25	LDA,LDT1,LDT2
Site Preparation	Vendor	—	0.25	HHDT,MHDT
Site Preparation	Hauling	0.00	0.25	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	12.5	0.25	LDA,LDT1,LDT2
Grading	Vendor	—	0.25	HHDT,MHDT
Grading	Hauling	0.00	0.25	HHDT
Grading	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	0.25	LDA,LDT1,LDT2
Paving	Vendor	—	0.25	HHDT,MHDT
Paving	Hauling	0.00	0.25	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	0.25	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	0.25	HHDT,MHDT
Architectural Coating	Hauling	0.00	0.25	HHDT

Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	0.00	0.00	2,783	928	3,711

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	9.38	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.42

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

Land Use	Area Paved (acres)	% Asphalt
Other Asphalt Surfaces	1.42	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2022	0.00	532	0.03	< 0.005
2023	0.00	532	0.03	< 0.005

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	29.1	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.36	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A

Air Quality	N/A	N/A	N/A	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 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	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8
Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1

Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

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	36.04516874
Employed	38.00846914
Education	—
Bachelor's or higher	28.6154241
High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587

Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9
Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5

Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4
Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on project applicant's inputs, the project would start in September 2022 and end in the second quarter of 2023. In addition, the demolition and site preparation are removed from this model. Therefore, the frontage construction schedule is adjusted as above.
Operations: Fleet Mix	The vehicle trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix.
Operations: Vehicle Data	Number of trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix. Truck trip length is set to be 78 miles, which is the distance between the Port of Long Beach and the proposed project.
Construction: Trips and VMT	All construction trip lengths are reduced to 0.25 mile to represent on-site emissions.

Perris Ramona Expressway Warehouse Main Site Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Main Site
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.843593, -117.24055
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Unrefrigerated Warehouse-No Rail	160	1000sqft	3.68	160,371	0.00	—	—	—
General Office Building	5.00	1000sqft	0.11	5,000	0.00	—	—	—

Parking Lot	119	1000sqft	2.74	0.00	41,155	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

2. Emissions Summary

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.	3.08	6.29	14.8	15.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	157	20,088	20,244	16.3	2.67	4,310	25,757
Mit.	3.08	6.29	14.8	15.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	150	20,053	20,203	15.6	2.65	4,310	25,693
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.77	5.08	15.4	7.31	0.17	0.33	3.45	3.78	0.32	0.77	1.09	157	19,964	20,120	16.3	2.67	4,275	25,599
Mit.	1.77	5.08	15.4	7.31	0.17	0.33	3.45	3.78	0.32	0.77	1.09	150	19,929	20,078	15.6	2.66	4,275	25,535
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.64	5.88	15.6	12.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	157	19,997	20,154	16.3	2.67	4,289	25,647

Mit.	2.64	5.88	15.6	12.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	150	19,962	20,112	15.6	2.66	4,289	25,583
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	1.07	2.85	2.26	0.03	0.06	0.63	0.69	0.06	0.14	0.20	25.9	3,311	3,337	2.70	0.44	710	4,246
Mit.	0.48	1.07	2.85	2.26	0.03	0.06	0.63	0.69	0.06	0.14	0.20	24.8	3,305	3,330	2.58	0.44	710	4,236
% Reduced	—	—	—	—	—	—	—	—	—	—	—	4%	< 0.5%	< 0.5%	4%	1%	—	< 0.5%

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	1.71	1.41	14.0	7.54	0.17	0.28	3.45	3.73	0.27	0.77	1.03	—	17,660	17,660	0.28	2.48	35.9	18,442
Area	1.28	4.82	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	3.08	6.29	14.8	15.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	157	20,088	20,244	16.3	2.67	4,310	25,757
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.68	1.38	14.7	6.68	0.16	0.28	3.45	3.73	0.27	0.77	1.03	—	17,566	17,566	0.28	2.48	0.93	18,313
Area	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	1.77	5.08	15.4	7.31	0.17	0.33	3.45	3.78	0.32	0.77	1.09	157	19,964	20,120	16.3	2.67	4,275	25,599
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.67	1.37	14.8	6.82	0.16	0.28	3.45	3.73	0.27	0.77	1.03	—	17,578	17,578	0.28	2.48	15.5	18,341
Area	0.88	4.45	0.04	4.92	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.3
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Total	2.64	5.88	15.6	12.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	157	19,997	20,154	16.3	2.67	4,289	25,647
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.30	0.25	2.71	1.25	0.03	0.05	0.63	0.68	0.05	0.14	0.19	—	2,910	2,910	0.05	0.41	2.57	3,037
Area	0.16	0.81	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Energy	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	332	332	0.02	< 0.005	—	334
Water	—	—	—	—	—	—	—	—	—	—	—	12.0	63.2	75.3	1.24	0.03	—	115
Waste	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
Stationary	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	0.48	1.07	2.85	2.26	0.03	0.06	0.63	0.69	0.06	0.14	0.20	25.9	3,311	3,337	2.70	0.44	710	4,246

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	1.71	1.41	14.0	7.54	0.17	0.28	3.45	3.73	0.27	0.77	1.03	—	17,660	17,660	0.28	2.48	35.9	18,442
Area	1.28	4.82	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	3.08	6.29	14.8	15.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	150	20,053	20,203	15.6	2.65	4,310	25,693
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.68	1.38	14.7	6.68	0.16	0.28	3.45	3.73	0.27	0.77	1.03	—	17,566	17,566	0.28	2.48	0.93	18,313
Area	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	1.77	5.08	15.4	7.31	0.17	0.33	3.45	3.78	0.32	0.77	1.09	150	19,929	20,078	15.6	2.66	4,275	25,535
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.67	1.37	14.8	6.82	0.16	0.28	3.45	3.73	0.27	0.77	1.03	—	17,578	17,578	0.28	2.48	15.5	18,341
Area	0.88	4.45	0.04	4.92	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.3
Energy	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	2,008	2,008	0.15	0.01	—	2,015
Water	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Waste	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Stationary	0.02	0.02	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.20	9.20	< 0.005	< 0.005	—	9.23
Total	2.64	5.88	15.6	12.4	0.17	0.34	3.45	3.79	0.33	0.77	1.10	150	19,962	20,112	15.6	2.66	4,289	25,583
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.30	0.25	2.71	1.25	0.03	0.05	0.63	0.68	0.05	0.14	0.19	—	2,910	2,910	0.05	0.41	2.57	3,037
Area	0.16	0.81	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Energy	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	332	332	0.02	< 0.005	—	334
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105
Waste	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
Stationary	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	0.48	1.07	2.85	2.26	0.03	0.06	0.63	0.69	0.06	0.14	0.20	24.8	3,305	3,330	2.58	0.44	710	4,236

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.73	0.46	13.8	3.39	0.15	0.27	1.38	1.66	0.26	0.45	0.71	—	16,394	16,394	0.25	2.45	33.6	17,165
General Office Building	0.98	0.96	0.20	4.15	0.01	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	1,266	1,266	0.03	0.03	2.35	1,277
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.71	1.41	14.0	7.54	0.17	0.28	1.45	1.73	0.27	0.46	0.73	—	17,660	17,660	0.28	2.48	35.9	18,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.72	0.45	14.4	3.39	0.15	0.27	1.38	1.66	0.26	0.45	0.71	—	16,397	16,397	0.25	2.45	0.87	17,135
General Office Building	0.95	0.93	0.22	3.29	0.01	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	1,169	1,169	0.03	0.03	0.06	1,178
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.68	1.38	14.7	6.68	0.16	0.28	1.45	1.73	0.27	0.46	0.73	—	17,566	17,566	0.28	2.48	0.93	18,313
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.08	2.67	0.62	0.03	0.05	0.25	0.30	0.05	0.08	0.13	—	2,714	2,714	0.04	0.41	2.40	2,839

General Office Building	0.17	0.17	0.04	0.63	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	196	196	< 0.005	< 0.005	0.17	198
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.30	0.25	2.71	1.25	0.03	0.05	0.26	0.31	0.05	0.08	0.13	—	2,910	2,910	0.05	0.41	2.57	3,037

4.1.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.73	0.46	13.8	3.39	0.15	0.27	1.38	1.66	0.26	0.45	0.71	—	16,394	16,394	0.25	2.45	33.6	17,165
General Office Building	0.98	0.96	0.20	4.15	0.01	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	1,266	1,266	0.03	0.03	2.35	1,277
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.71	1.41	14.0	7.54	0.17	0.28	1.45	1.73	0.27	0.46	0.73	—	17,660	17,660	0.28	2.48	35.9	18,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.72	0.45	14.4	3.39	0.15	0.27	1.38	1.66	0.26	0.45	0.71	—	16,397	16,397	0.25	2.45	0.87	17,135

General Office Building	0.95	0.93	0.22	3.29	0.01	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	1,169	1,169	0.03	0.03	0.06	1,178
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.68	1.38	14.7	6.68	0.16	0.28	1.45	1.73	0.27	0.46	0.73	—	17,566	17,566	0.28	2.48	0.93	18,313
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.08	2.67	0.62	0.03	0.05	0.25	0.30	0.05	0.08	0.13	—	2,714	2,714	0.04	0.41	2.40	2,839
General Office Building	0.17	0.17	0.04	0.63	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	196	196	< 0.005	< 0.005	0.17	198
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.30	0.25	2.71	1.25	0.03	0.05	0.26	0.31	0.05	0.08	0.13	—	2,910	2,910	0.05	0.41	2.57	3,037

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.01	< 0.005	—	179
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.01	< 0.005	—	200

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,076	1,076	0.07	0.01	—	1,080
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,203	1,203	0.07	0.01	—	1,207
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.01	< 0.005	—	179
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	199	199	0.01	< 0.005	—	200

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige rated Warehou Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.52
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	134

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756

General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.07	0.03	0.63	0.53	< 0.005	0.05	—	0.05	0.05	—	0.05	—	754	754	0.07	< 0.005	—	756
General Office Building	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	51.3	51.3	< 0.005	< 0.005	—	51.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.07	0.04	0.67	0.57	< 0.005	0.05	—	0.05	0.05	—	0.05	—	805	805	0.07	< 0.005	—	807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	125	125	0.01	< 0.005	—	125
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.50	8.50	< 0.005	< 0.005	—	8.52
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.12	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	133	133	0.01	< 0.005	—	134

4.3. Area Emissions by Source

4.3.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.28	1.18	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	1.28	21.7	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landsca Equipment	0.16	0.15	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Total	0.16	0.98	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37

4.3.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	17.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.28	1.18	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Total	1.28	21.7	0.06	7.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.6	29.6	< 0.005	< 0.005	—	29.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.15	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37
Total	0.16	0.98	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.35	3.35	< 0.005	< 0.005	—	3.37

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	71.1	368	439	7.31	0.18	—	674
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.70	8.82	10.5	0.18	< 0.005	—	16.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	71.1	368	439	7.31	0.18	—	674
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.70	8.82	10.5	0.18	< 0.005	—	16.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	72.8	382	455	7.49	0.18	—	695
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	11.8	60.9	72.7	1.21	0.03	—	112
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.28	1.46	1.74	0.03	< 0.005	—	2.67
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.84	0.84	< 0.005	< 0.005	—	0.84
Total	—	—	—	—	—	—	—	—	—	—	—	12.0	63.2	75.3	1.24	0.03	—	115

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611

General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	64.5	334	398	6.63	0.16	—	611
General Office Building	—	—	—	—	—	—	—	—	—	—	—	1.54	8.00	9.54	0.16	< 0.005	—	14.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	5.05	5.05	< 0.005	< 0.005	—	5.07
Total	—	—	—	—	—	—	—	—	—	—	—	66.0	347	413	6.79	0.16	—	631
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	10.7	55.3	65.9	1.10	0.03	—	101
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.26	1.32	1.58	0.03	< 0.005	—	2.43
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.84	0.84	< 0.005	< 0.005	—	0.84
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	57.4	68.3	1.12	0.03	—	105

4.5. Waste Emissions by Land Use

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284
General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	81.2	0.00	81.2	8.12	0.00	—	284

General Office Building	—	—	—	—	—	—	—	—	—	—	—	2.51	0.00	2.51	0.25	0.00	—	8.77
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	83.8	0.00	83.8	8.37	0.00	—	293
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.5	0.00	13.5	1.34	0.00	—	47.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	0.00	—	1.45
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.9	0.00	13.9	1.39	0.00	—	48.5

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,274	4,274
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	708	708

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)

Equipme 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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

4.8.2. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42

Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Total	0.02	0.02	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.40	8.40	< 0.005	< 0.005	—	8.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fire Pump	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.52	1.52	< 0.005	< 0.005	—	1.53

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)

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

5. Activity Data

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
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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)
0	0.00	50,687	16,896	7,169

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)
Unrefrigerated Warehouse-No Rail	738,084	532	0.0330	0.0040	2,352,181
General Office Building	87,216	532	0.0330	0.0040	160,115
Parking Lot	0.00	532	0.0330	0.0040	0.00

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)

Unrefrigerated Warehouse-No Rail	738,084	532	0.0330	0.0040	2,352,181
General Office Building	87,216	532	0.0330	0.0040	160,115
Parking Lot	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	37,085,794	0.00
General Office Building	888,669	0.00
Parking Lot	0.00	652,542

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	33,636,815	0.00
General Office Building	806,023	0.00
Parking Lot	0.00	652,542

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	151	0.00
General Office Building	4.65	0.00
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	151	0.00
General Office Building	4.65	0.00
Parking Lot	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Fire Pump	Diesel	1.00	0.05	20.0	100	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	29.1	annual days of extreme heat

Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	6.36	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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 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	97.6
AQ-PM	53.3
AQ-DPM	47.8
Drinking Water	10.2
Lead Risk Housing	22.0
Pesticides	58.8

Toxic Releases	37.7
Traffic	81.9
Effect Indicators	—
CleanUp Sites	69.4
Groundwater	0.00
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	40.1
Sensitive Population	—
Asthma	65.6
Cardio-vascular	90.6
Low Birth Weights	62.9
Socioeconomic Factor Indicators	—
Education	74.7
Housing	57.9
Linguistic	53.4
Poverty	64.5
Unemployment	15.8

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	36.04516874
Employed	38.00846914
Education	—
Bachelor's or higher	28.6154241

High school enrollment	100
Preschool enrollment	5.440780187
Transportation	—
Auto Access	94.58488387
Active commuting	6.723983062
Social	—
2-parent households	87.71974849
Voting	9.636853587
Neighborhood	—
Alcohol availability	84.04978827
Park access	11.88245862
Retail density	29.21852945
Supermarket access	12.06210702
Tree canopy	0.590273322
Housing	—
Homeownership	79.23777749
Housing habitability	40.67753112
Low-inc homeowner severe housing cost burden	12.19042731
Low-inc renter severe housing cost burden	27.61452586
Uncrowded housing	47.8121391
Health Outcomes	—
Insured adults	26.49813936
Arthritis	79.8
Asthma ER Admissions	42.9
High Blood Pressure	64.8
Cancer (excluding skin)	87.6
Asthma	27.9

Coronary Heart Disease	81.5
Chronic Obstructive Pulmonary Disease	59.8
Diagnosed Diabetes	52.6
Life Expectancy at Birth	37.8
Cognitively Disabled	88.7
Physically Disabled	83.0
Heart Attack ER Admissions	7.5
Mental Health Not Good	28.5
Chronic Kidney Disease	64.9
Obesity	17.5
Pedestrian Injuries	92.5
Physical Health Not Good	37.9
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	30.9
Current Smoker	25.4
No Leisure Time for Physical Activity	29.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	35.2
Elderly	90.4
English Speaking	42.3
Foreign-born	59.5
Outdoor Workers	11.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	72.4

Traffic Density	65.3
Traffic Access	23.0
Other Indices	—
Hardship	70.6
Other Decision Support	—
2016 Voting	23.4

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	30.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Based on project applicant's inputs, the project would start in September 2022 and conclude in second quarter of 2023.

Operations: Fleet Mix	The vehicle trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment and fleet mix calculation sheets in the appendix.
Operations: Vehicle Data	Number of trips are adjusted based on the traffic analysis which estimates 184 daily passenger vehicles and 102 daily truck trips. Please see trip adjustment calculation sheets in the appendix. Truck trip length is set to be 78 miles, which is the distance between the Port of Long Beach and the proposed project.
Construction: Off-Road Equipment	The Building Construction Phase is shortened based on project schedule, the equipment hours are adjusted to conserve the same horsepower hours with that of the CalEEMod default horsepower. Please see the appendix for details.
Construction: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum architectural coating that is needed.
Operations: Architectural Coatings	The proposed warehouse and distribution center would be composed of tilt-up wall concrete panels with pre-finished metal components on the exterior. Therefore, the exterior and interior area are reduced to 20% of CalEEMod default to reflect minimum coating reapplication that is needed.

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix B:
Health Risk Assessments

THIS PAGE INTENTIONALLY LEFT BLANK

Construction Health Risk Calculations

Perris Ramona Expressway Warehouse Project

Estimation of Annual Onsite Construction Emissions

Start of Construction	9/1/2022	
End of Construction	6/28/2023	**Total**
Number of Days	300	300
Number of Hours	7,200	7,200

Size of the construction area source: **31,241.5** **sq-meters**

Year	**On-site Construction Activity**	**Unmitigated On-site DPM (tons)**
2022	On-site Demolition	0.01000
2022	On-site Site Preparation	0.01000
2022	On-site Grading	0.01000
2022	On-site Building Construction	0.02000
2023	On-site Building Construction	0.05000
2023	On-site Paving	0.00500
2023	On-site Architectural Coating	0.00500
2022	Frontage Improvements	0.05000
2023	Frontage Improvements	0.05000
2022-2023	Localized Off-site Emissions	0.10000

Total Unmitigated DPM (On-site) 3.100E-01 tons

Average Emission	2.815E+05	grams
	1.086E-02	grams/sec
	3.476E-07	grams/m2-sec

OEHHA Cancer/SCAQMD Risk Methodology

Cancer Risk = DPM x CPF x ASF x DBR x ED x EF x TAH x AF/ AT

Cancer Risk = probability of an individual contracting cancer out of a population of 1 million people over a lifetime exposure duration of 30 years

DPM = long-term average concentration of diesel PM as predicted by the air dispersion model (ug/m3)

CPF = cancer potency factor for DPM (mg.ke-day)

ASF = age sensitivity factors that are dependent on the age of the exposed individual (unitless)

DBR = daily breathing rates that are dependent on the age of the exposed individual (liters/kg-day)

ED = exposure duration (years)

EF = exposure frequency (days/year)

TAH = time at home factors that are dependent on the age of the exposed individual (%)

AT = averaging time over the lifetime of an individual (days)

AF = adjustment factor for workers and students (unitless)

Cancer Risk Equation Values as recommended by the California Office of Environmental Health Hazards Assessment

Cancer Risk Calculations Using OEHHA Cancer Risk Assumptions
Perris Ramona Expressway Warehouse Project

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Infant

UTM: 477705.81 3745083.24

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	260	days/year (5 days per week)
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Year	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Cancer Risk (/million)
3rd Trimester	0.080223646	10	361	1	0.25	0.810447
0-1	0.080223646	10	1090	1	0.57	5.598061
					Total	6.408508

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Child

UTM: 477705.81 3745083.24

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	260	days/year (5 days per week)
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10Exhaust) Unmitigated

Construction Year	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.080223646	3	861	1	0.82	1.906472
					Total	1.906472

Cancer Risk Impacts from Construction at the Maximum Impacted Sensitive Receptor - Adult

UTM: 477705.81 3745083.24

Cancer Potency Factor:	1.1	$(mg/kg\text{-}day)^{-1}$
Exposure Frequency	260	days/year (5 days per week)
Averaging Period	25550	days

Construction Annual DPM Emissions (as PM10 Exhaust) Unmitigated

Construction Year	Maximum DPM Concentration (ug/m3)	Age Sensitivity Factor	Daily Breathing Rate (L/kg-day)	Time At Home Factor	Exposure Duration (years)	Unit Risk Factor $(ug/m3)^{-1}$
1	0.080223646	1	261	0.73	0.82	0.140627
					Total	0.140627

Perris Ramona Expressway Warehouse Project

UTM: 477705.81 3745083.24

Estimates of Chronic Non-Cancer Hazard Index (CNCHI)

Unmitigated

Chronic Non-Cancer Hazard Index at the Maximum Impacted Sensitive Receptor

Reference Exposure Level (REL) for DPM: 5 ug/m3

CNCHI = DPM/REL

X (m)	Y (m)	Average DPM (ug/m3)	Max DPM (ug/m3)	CNCHI
477705.81	3745083.24	0.08022365	0.08022365	0.01604473

Perris Ramona Expressway Warehouse Project

Construction Annual DPM Emissions (PM10 Exhaust)—Unmitigated Concentrations

		Maximum DPM (ug/m3)	UTM X	UTM Y
Annual Average Onsite Total DPM Emission Rate (grams/m2/sec):*	1.09E-02	8.0224E-02	477705.81	3745083.24

***grams/sec value used, as the unit emissions are 1 g/s and divided in the model by the area (m2)**

X	Y	Unit Emissions VALUES AVERAGED SITE AREA	Onsite Annual DPM Exhaust w/Actual Emissions (ug/m3)	Offsite-Road Segment 1 Annual DPM Exhaust w/Actual Emissions (ug/m3)	Offsite-Road Segment 2 Annual DPM Exhaust w/Actual Emissions (ug/m3)	Offsite-Road Segment 3 Annual DPM Exhaust w/Actual Emissions (ug/m3)	**Total DPM (ug/m3)**
477705.81	3745083.24	7.38737	8.02E-02	0.00E+00	0.00E+00	0.00E+00	8.0224E-02
477681.32	3745107.73	5.83807	6.34E-02	0.00E+00	0.00E+00	0.00E+00	6.3399E-02
477714.50	3745130.90	5.20498	5.65E-02	0.00E+00	0.00E+00	0.00E+00	5.6524E-02
477710.83	3745154.80	4.43619	4.82E-02	0.00E+00	0.00E+00	0.00E+00	4.8175E-02
477713.48	3745182.93	3.7533	4.08E-02	0.00E+00	0.00E+00	0.00E+00	4.0759E-02
477717.89	3745206.98	3.29182	3.57E-02	0.00E+00	0.00E+00	0.00E+00	3.5748E-02
477719.11	3745233.04	2.88163	3.13E-02	0.00E+00	0.00E+00	0.00E+00	3.1293E-02
477712.06	3745261.55	2.51623	2.73E-02	0.00E+00	0.00E+00	0.00E+00	2.7325E-02
477717.83	3745285.15	2.27041	2.47E-02	0.00E+00	0.00E+00	0.00E+00	2.4656E-02
477720.80	3745311.46	2.0374	2.21E-02	0.00E+00	0.00E+00	0.00E+00	2.2125E-02
477718.68	3745339.04	1.83276	1.99E-02	0.00E+00	0.00E+00	0.00E+00	1.9903E-02
477716.72	3745391.49	1.52619	1.66E-02	0.00E+00	0.00E+00	0.00E+00	1.6574E-02
477476.64	3745397.66	1.09407	1.19E-02	0.00E+00	0.00E+00	0.00E+00	1.1881E-02
477472.67	3745368.80	1.14924	1.25E-02	0.00E+00	0.00E+00	0.00E+00	1.2480E-02
477473.75	3745345.36	1.21002	1.31E-02	0.00E+00	0.00E+00	0.00E+00	1.3140E-02
477474.50	3745291.98	1.35988	1.48E-02	0.00E+00	0.00E+00	0.00E+00	1.4768E-02
477476.65	3745315.28	1.30119	1.41E-02	0.00E+00	0.00E+00	0.00E+00	1.4130E-02
477474.50	3745266.84	1.43745	1.56E-02	0.00E+00	0.00E+00	0.00E+00	1.5610E-02
477467.45	3745239.85	1.48616	1.61E-02	0.00E+00	0.00E+00	0.00E+00	1.6139E-02
477472.97	3745216.86	1.59837	1.74E-02	0.00E+00	0.00E+00	0.00E+00	1.7358E-02
477471.51	3745185.06	1.70597	1.85E-02	0.00E+00	0.00E+00	0.00E+00	1.8526E-02
477473.68	3745164.50	1.80529	1.96E-02	0.00E+00	0.00E+00	0.00E+00	1.9605E-02
477476.56	3745137.45	1.94859	2.12E-02	0.00E+00	0.00E+00	0.00E+00	2.1161E-02
477473.21	3745088.15	2.13263	2.32E-02	0.00E+00	0.00E+00	0.00E+00	2.3159E-02
477712.27	3745369.96	1.64138	1.78E-02	0.00E+00	0.00E+00	0.00E+00	1.7825E-02
477839.03	3745427.98	1.22716	1.33E-02	0.00E+00	0.00E+00	0.00E+00	1.3326E-02
479210.93	3744556.28	0.06892	7.48E-04	0.00E+00	0.00E+00	0.00E+00	7.4844E-04
479224.03	3744556.28	0.0678	7.36E-04	0.00E+00	0.00E+00	0.00E+00	7.3628E-04
479237.13	3744556.28	0.06671	7.24E-04	0.00E+00	0.00E+00	0.00E+00	7.2444E-04
479250.23	3744556.28	0.06565	7.13E-04	0.00E+00	0.00E+00	0.00E+00	7.1293E-04
479263.33	3744556.28	0.06463	7.02E-04	0.00E+00	0.00E+00	0.00E+00	7.0185E-04
479276.43	3744556.28	0.06362	6.91E-04	0.00E+00	0.00E+00	0.00E+00	6.9089E-04
479289.53	3744556.28	0.06265	6.80E-04	0.00E+00	0.00E+00	0.00E+00	6.8035E-04
479302.63	3744556.28	0.06169	6.70E-04	0.00E+00	0.00E+00	0.00E+00	6.6993E-04
479315.73	3744556.28	0.06075	6.60E-04	0.00E+00	0.00E+00	0.00E+00	6.5972E-04
479328.83	3744556.28	0.05984	6.50E-04	0.00E+00	0.00E+00	0.00E+00	6.4984E-04
479341.93	3744556.28	0.05897	6.40E-04	0.00E+00	0.00E+00	0.00E+00	6.4039E-04
479355.03	3744556.28	0.05811	6.31E-04	0.00E+00	0.00E+00	0.00E+00	6.3105E-04
479368.13	3744556.28	0.05727	6.22E-04	0.00E+00	0.00E+00	0.00E+00	6.2193E-04
479381.23	3744556.28	0.05646	6.13E-04	0.00E+00	0.00E+00	0.00E+00	6.1313E-04
479394.33	3744556.28	0.05567	6.05E-04	0.00E+00	0.00E+00	0.00E+00	6.0455E-04
479407.43	3744556.28	0.05489	5.96E-04	0.00E+00	0.00E+00	0.00E+00	5.9608E-04
479420.53	3744556.28	0.05414	5.88E-04	0.00E+00	0.00E+00	0.00E+00	5.8794E-04
479433.63	3744556.28	0.0534	5.80E-04	0.00E+00	0.00E+00	0.00E+00	5.7990E-04
479446.73	3744556.28	0.05268	5.72E-04	0.00E+00	0.00E+00	0.00E+00	5.7208E-04
479459.83	3744556.28	0.05197	5.64E-04	0.00E+00	0.00E+00	0.00E+00	5.6437E-04
479472.93	3744556.28	0.05128	5.57E-04	0.00E+00	0.00E+00	0.00E+00	5.5688E-04
479210.93	3744571.39	0.06828	7.41E-04	0.00E+00	0.00E+00	0.00E+00	7.4149E-04
479224.03	3744571.39	0.06717	7.29E-04	0.00E+00	0.00E+00	0.00E+00	7.2944E-04
479237.13	3744571.39	0.0661	7.18E-04	0.00E+00	0.00E+00	0.00E+00	7.1782E-04
479250.23	3744571.39	0.06505	7.06E-04	0.00E+00	0.00E+00	0.00E+00	7.0641E-04
479263.33	3744571.39	0.06404	6.95E-04	0.00E+00	0.00E+00	0.00E+00	6.9545E-04
479276.43	3744571.39	0.06305	6.85E-04	0.00E+00	0.00E+00	0.00E+00	6.8470E-04

479289.53	3744571.39	0.06208	6.74E-04	0.00E+00	0.00E+00	0.00E+00	6.7416E-04
479302.63	3744571.39	0.06113	6.64E-04	0.00E+00	0.00E+00	0.00E+00	6.6385E-04
479315.73	3744571.39	0.0602	6.54E-04	0.00E+00	0.00E+00	0.00E+00	6.5375E-04
479328.83	3744571.39	0.05931	6.44E-04	0.00E+00	0.00E+00	0.00E+00	6.4408E-04
479341.93	3744571.39	0.05844	6.35E-04	0.00E+00	0.00E+00	0.00E+00	6.3463E-04
479355.03	3744571.39	0.0576	6.26E-04	0.00E+00	0.00E+00	0.00E+00	6.2551E-04
479368.13	3744571.39	0.05677	6.16E-04	0.00E+00	0.00E+00	0.00E+00	6.1650E-04
479381.23	3744571.39	0.05597	6.08E-04	0.00E+00	0.00E+00	0.00E+00	6.0781E-04
479394.33	3744571.39	0.05519	5.99E-04	0.00E+00	0.00E+00	0.00E+00	5.9934E-04
479407.43	3744571.39	0.05442	5.91E-04	0.00E+00	0.00E+00	0.00E+00	5.9098E-04
479420.53	3744571.39	0.05367	5.83E-04	0.00E+00	0.00E+00	0.00E+00	5.8283E-04
479433.63	3744571.39	0.05295	5.75E-04	0.00E+00	0.00E+00	0.00E+00	5.7501E-04
479446.73	3744571.39	0.05223	5.67E-04	0.00E+00	0.00E+00	0.00E+00	5.6720E-04
479459.83	3744571.39	0.05154	5.60E-04	0.00E+00	0.00E+00	0.00E+00	5.5970E-04
479472.93	3744571.39	0.05086	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5232E-04
479210.93	3744586.50	0.06761	7.34E-04	0.00E+00	0.00E+00	0.00E+00	7.3422E-04
479224.03	3744586.50	0.06653	7.22E-04	0.00E+00	0.00E+00	0.00E+00	7.2249E-04
479237.13	3744586.50	0.06547	7.11E-04	0.00E+00	0.00E+00	0.00E+00	7.1098E-04
479250.23	3744586.50	0.06444	7.00E-04	0.00E+00	0.00E+00	0.00E+00	6.9979E-04
479263.33	3744586.50	0.06343	6.89E-04	0.00E+00	0.00E+00	0.00E+00	6.8882E-04
479276.43	3744586.50	0.06246	6.78E-04	0.00E+00	0.00E+00	0.00E+00	6.7829E-04
479289.53	3744586.50	0.06151	6.68E-04	0.00E+00	0.00E+00	0.00E+00	6.6797E-04
479302.63	3744586.50	0.06057	6.58E-04	0.00E+00	0.00E+00	0.00E+00	6.5776E-04
479315.73	3744586.50	0.05966	6.48E-04	0.00E+00	0.00E+00	0.00E+00	6.4788E-04
479328.83	3744586.50	0.05878	6.38E-04	0.00E+00	0.00E+00	0.00E+00	6.3833E-04
479341.93	3744586.50	0.05793	6.29E-04	0.00E+00	0.00E+00	0.00E+00	6.2909E-04
479355.03	3744586.50	0.0571	6.20E-04	0.00E+00	0.00E+00	0.00E+00	6.2008E-04
479368.13	3744586.50	0.05628	6.11E-04	0.00E+00	0.00E+00	0.00E+00	6.1118E-04
479381.23	3744586.50	0.05549	6.03E-04	0.00E+00	0.00E+00	0.00E+00	6.0260E-04
479394.33	3744586.50	0.05472	5.94E-04	0.00E+00	0.00E+00	0.00E+00	5.9424E-04
479407.43	3744586.50	0.05396	5.86E-04	0.00E+00	0.00E+00	0.00E+00	5.8598E-04
479420.53	3744586.50	0.05323	5.78E-04	0.00E+00	0.00E+00	0.00E+00	5.7805E-04
479433.63	3744586.50	0.05251	5.70E-04	0.00E+00	0.00E+00	0.00E+00	5.7024E-04
479446.73	3744586.50	0.05181	5.63E-04	0.00E+00	0.00E+00	0.00E+00	5.6263E-04
479459.83	3744586.50	0.05112	5.55E-04	0.00E+00	0.00E+00	0.00E+00	5.5514E-04
479472.93	3744586.50	0.05045	5.48E-04	0.00E+00	0.00E+00	0.00E+00	5.4787E-04
479210.93	3744601.61	0.06697	7.27E-04	0.00E+00	0.00E+00	0.00E+00	7.2727E-04
479224.03	3744601.61	0.0659	7.16E-04	0.00E+00	0.00E+00	0.00E+00	7.1565E-04
479237.13	3744601.61	0.06485	7.04E-04	0.00E+00	0.00E+00	0.00E+00	7.0424E-04
479250.23	3744601.61	0.06384	6.93E-04	0.00E+00	0.00E+00	0.00E+00	6.9327E-04
479263.33	3744601.61	0.06285	6.83E-04	0.00E+00	0.00E+00	0.00E+00	6.8252E-04
479276.43	3744601.61	0.06189	6.72E-04	0.00E+00	0.00E+00	0.00E+00	6.7210E-04
479289.53	3744601.61	0.06096	6.62E-04	0.00E+00	0.00E+00	0.00E+00	6.6200E-04
479302.63	3744601.61	0.06003	6.52E-04	0.00E+00	0.00E+00	0.00E+00	6.5190E-04
479315.73	3744601.61	0.05913	6.42E-04	0.00E+00	0.00E+00	0.00E+00	6.4213E-04
479328.83	3744601.61	0.05826	6.33E-04	0.00E+00	0.00E+00	0.00E+00	6.3268E-04
479341.93	3744601.61	0.05742	6.24E-04	0.00E+00	0.00E+00	0.00E+00	6.2356E-04
479355.03	3744601.61	0.05659	6.15E-04	0.00E+00	0.00E+00	0.00E+00	6.1454E-04
479368.13	3744601.61	0.05579	6.06E-04	0.00E+00	0.00E+00	0.00E+00	6.0586E-04
479381.23	3744601.61	0.05501	5.97E-04	0.00E+00	0.00E+00	0.00E+00	5.9738E-04
479394.33	3744601.61	0.05425	5.89E-04	0.00E+00	0.00E+00	0.00E+00	5.8913E-04
479407.43	3744601.61	0.0535	5.81E-04	0.00E+00	0.00E+00	0.00E+00	5.8099E-04
479420.53	3744601.61	0.05278	5.73E-04	0.00E+00	0.00E+00	0.00E+00	5.7317E-04
479433.63	3744601.61	0.05207	5.65E-04	0.00E+00	0.00E+00	0.00E+00	5.6546E-04
479446.73	3744601.61	0.05137	5.58E-04	0.00E+00	0.00E+00	0.00E+00	5.5786E-04
479459.83	3744601.61	0.0507	5.51E-04	0.00E+00	0.00E+00	0.00E+00	5.5058E-04
479472.93	3744601.61	0.05004	5.43E-04	0.00E+00	0.00E+00	0.00E+00	5.4341E-04
479210.93	3744616.72	0.06633	7.20E-04	0.00E+00	0.00E+00	0.00E+00	7.2032E-04
479224.03	3744616.72	0.06527	7.09E-04	0.00E+00	0.00E+00	0.00E+00	7.0880E-04
479237.13	3744616.72	0.06424	6.98E-04	0.00E+00	0.00E+00	0.00E+00	6.9762E-04
479250.23	3744616.72	0.06324	6.87E-04	0.00E+00	0.00E+00	0.00E+00	6.8676E-04
479263.33	3744616.72	0.06227	6.76E-04	0.00E+00	0.00E+00	0.00E+00	6.7623E-04
479276.43	3744616.72	0.06132	6.66E-04	0.00E+00	0.00E+00	0.00E+00	6.6591E-04
479289.53	3744616.72	0.0604	6.56E-04	0.00E+00	0.00E+00	0.00E+00	6.5592E-04
479302.63	3744616.72	0.05949	6.46E-04	0.00E+00	0.00E+00	0.00E+00	6.4604E-04
479315.73	3744616.72	0.0586	6.36E-04	0.00E+00	0.00E+00	0.00E+00	6.3637E-04

479328.83	3744616.72	0.05774	6.27E-04	0.00E+00	0.00E+00	0.00E+00	6.2703E-04
479341.93	3744616.72	0.05691	6.18E-04	0.00E+00	0.00E+00	0.00E+00	6.1802E-04
479355.03	3744616.72	0.0561	6.09E-04	0.00E+00	0.00E+00	0.00E+00	6.0922E-04
479368.13	3744616.72	0.05531	6.01E-04	0.00E+00	0.00E+00	0.00E+00	6.0064E-04
479381.23	3744616.72	0.05454	5.92E-04	0.00E+00	0.00E+00	0.00E+00	5.9228E-04
479394.33	3744616.72	0.05379	5.84E-04	0.00E+00	0.00E+00	0.00E+00	5.8414E-04
479407.43	3744616.72	0.05305	5.76E-04	0.00E+00	0.00E+00	0.00E+00	5.7610E-04
479420.53	3744616.72	0.05234	5.68E-04	0.00E+00	0.00E+00	0.00E+00	5.6839E-04
479433.63	3744616.72	0.05164	5.61E-04	0.00E+00	0.00E+00	0.00E+00	5.6079E-04
479446.73	3744616.72	0.05095	5.53E-04	0.00E+00	0.00E+00	0.00E+00	5.5329E-04
479459.83	3744616.72	0.05028	5.46E-04	0.00E+00	0.00E+00	0.00E+00	5.4602E-04
479472.93	3744616.72	0.04963	5.39E-04	0.00E+00	0.00E+00	0.00E+00	5.3896E-04
479210.93	3744631.83	0.06569	7.13E-04	0.00E+00	0.00E+00	0.00E+00	7.1337E-04
479224.03	3744631.83	0.06465	7.02E-04	0.00E+00	0.00E+00	0.00E+00	7.0207E-04
479237.13	3744631.83	0.06364	6.91E-04	0.00E+00	0.00E+00	0.00E+00	6.9110E-04
479250.23	3744631.83	0.06265	6.80E-04	0.00E+00	0.00E+00	0.00E+00	6.8035E-04
479263.33	3744631.83	0.06169	6.70E-04	0.00E+00	0.00E+00	0.00E+00	6.6993E-04
479276.43	3744631.83	0.06076	6.60E-04	0.00E+00	0.00E+00	0.00E+00	6.5983E-04
479289.53	3744631.83	0.05985	6.50E-04	0.00E+00	0.00E+00	0.00E+00	6.4995E-04
479302.63	3744631.83	0.05895	6.40E-04	0.00E+00	0.00E+00	0.00E+00	6.4017E-04
479315.73	3744631.83	0.05807	6.31E-04	0.00E+00	0.00E+00	0.00E+00	6.3062E-04
479328.83	3744631.83	0.05722	6.21E-04	0.00E+00	0.00E+00	0.00E+00	6.2138E-04
479341.93	3744631.83	0.0564	6.12E-04	0.00E+00	0.00E+00	0.00E+00	6.1248E-04
479355.03	3744631.83	0.0556	6.04E-04	0.00E+00	0.00E+00	0.00E+00	6.0379E-04
479368.13	3744631.83	0.05482	5.95E-04	0.00E+00	0.00E+00	0.00E+00	5.9532E-04
479381.23	3744631.83	0.05406	5.87E-04	0.00E+00	0.00E+00	0.00E+00	5.8707E-04
479394.33	3744631.83	0.05332	5.79E-04	0.00E+00	0.00E+00	0.00E+00	5.7903E-04
479407.43	3744631.83	0.05259	5.71E-04	0.00E+00	0.00E+00	0.00E+00	5.7110E-04
479420.53	3744631.83	0.05189	5.64E-04	0.00E+00	0.00E+00	0.00E+00	5.6350E-04
479433.63	3744631.83	0.0512	5.56E-04	0.00E+00	0.00E+00	0.00E+00	5.5601E-04
479446.73	3744631.83	0.05052	5.49E-04	0.00E+00	0.00E+00	0.00E+00	5.4863E-04
479459.83	3744631.83	0.04986	5.41E-04	0.00E+00	0.00E+00	0.00E+00	5.4146E-04
479472.93	3744631.83	0.04922	5.35E-04	0.00E+00	0.00E+00	0.00E+00	5.3451E-04
479210.93	3744646.94	0.06505	7.06E-04	0.00E+00	0.00E+00	0.00E+00	7.0641E-04
479224.03	3744646.94	0.06402	6.95E-04	0.00E+00	0.00E+00	0.00E+00	6.9523E-04
479237.13	3744646.94	0.06303	6.84E-04	0.00E+00	0.00E+00	0.00E+00	6.8448E-04
479250.23	3744646.94	0.06206	6.74E-04	0.00E+00	0.00E+00	0.00E+00	6.7394E-04
479263.33	3744646.94	0.06111	6.64E-04	0.00E+00	0.00E+00	0.00E+00	6.6363E-04
479276.43	3744646.94	0.06019	6.54E-04	0.00E+00	0.00E+00	0.00E+00	6.5364E-04
479289.53	3744646.94	0.05929	6.44E-04	0.00E+00	0.00E+00	0.00E+00	6.4386E-04
479302.63	3744646.94	0.05841	6.34E-04	0.00E+00	0.00E+00	0.00E+00	6.3431E-04
479315.73	3744646.94	0.05754	6.25E-04	0.00E+00	0.00E+00	0.00E+00	6.2486E-04
479328.83	3744646.94	0.05671	6.16E-04	0.00E+00	0.00E+00	0.00E+00	6.1585E-04
479341.93	3744646.94	0.0559	6.07E-04	0.00E+00	0.00E+00	0.00E+00	6.0705E-04
479355.03	3744646.94	0.05511	5.98E-04	0.00E+00	0.00E+00	0.00E+00	5.9847E-04
479368.13	3744646.94	0.05435	5.90E-04	0.00E+00	0.00E+00	0.00E+00	5.9022E-04
479381.23	3744646.94	0.0536	5.82E-04	0.00E+00	0.00E+00	0.00E+00	5.8207E-04
479394.33	3744646.94	0.05286	5.74E-04	0.00E+00	0.00E+00	0.00E+00	5.7404E-04
479407.43	3744646.94	0.05215	5.66E-04	0.00E+00	0.00E+00	0.00E+00	5.6633E-04
479420.53	3744646.94	0.05145	5.59E-04	0.00E+00	0.00E+00	0.00E+00	5.5872E-04
479433.63	3744646.94	0.05077	5.51E-04	0.00E+00	0.00E+00	0.00E+00	5.5134E-04
479446.73	3744646.94	0.0501	5.44E-04	0.00E+00	0.00E+00	0.00E+00	5.4406E-04
479459.83	3744646.94	0.04945	5.37E-04	0.00E+00	0.00E+00	0.00E+00	5.3701E-04
479472.93	3744646.94	0.04882	5.30E-04	0.00E+00	0.00E+00	0.00E+00	5.3016E-04
479210.93	3744662.05	0.06443	7.00E-04	0.00E+00	0.00E+00	0.00E+00	6.9968E-04
479224.03	3744662.05	0.06342	6.89E-04	0.00E+00	0.00E+00	0.00E+00	6.8871E-04
479237.13	3744662.05	0.06243	6.78E-04	0.00E+00	0.00E+00	0.00E+00	6.7796E-04
479250.23	3744662.05	0.06148	6.68E-04	0.00E+00	0.00E+00	0.00E+00	6.6765E-04
479263.33	3744662.05	0.06054	6.57E-04	0.00E+00	0.00E+00	0.00E+00	6.5744E-04
479276.43	3744662.05	0.05964	6.48E-04	0.00E+00	0.00E+00	0.00E+00	6.4766E-04
479289.53	3744662.05	0.05875	6.38E-04	0.00E+00	0.00E+00	0.00E+00	6.3800E-04
479302.63	3744662.05	0.05789	6.29E-04	0.00E+00	0.00E+00	0.00E+00	6.2866E-04
479315.73	3744662.05	0.05704	6.19E-04	0.00E+00	0.00E+00	0.00E+00	6.1943E-04
479328.83	3744662.05	0.05622	6.11E-04	0.00E+00	0.00E+00	0.00E+00	6.1052E-04
479341.93	3744662.05	0.05542	6.02E-04	0.00E+00	0.00E+00	0.00E+00	6.0184E-04
479355.03	3744662.05	0.05463	5.93E-04	0.00E+00	0.00E+00	0.00E+00	5.9326E-04

479368.13	3744662.05	0.05388	5.85E-04	0.00E+00	0.00E+00	0.00E+00	5.8511E-04
479381.23	3744662.05	0.05314	5.77E-04	0.00E+00	0.00E+00	0.00E+00	5.7708E-04
479394.33	3744662.05	0.05241	5.69E-04	0.00E+00	0.00E+00	0.00E+00	5.6915E-04
479407.43	3744662.05	0.05171	5.62E-04	0.00E+00	0.00E+00	0.00E+00	5.6155E-04
479420.53	3744662.05	0.05102	5.54E-04	0.00E+00	0.00E+00	0.00E+00	5.5406E-04
479433.63	3744662.05	0.05035	5.47E-04	0.00E+00	0.00E+00	0.00E+00	5.4678E-04
479446.73	3744662.05	0.04969	5.40E-04	0.00E+00	0.00E+00	0.00E+00	5.3961E-04
479459.83	3744662.05	0.04905	5.33E-04	0.00E+00	0.00E+00	0.00E+00	5.3266E-04
479472.93	3744662.05	0.04842	5.26E-04	0.00E+00	0.00E+00	0.00E+00	5.2582E-04
479210.93	3744677.16	0.06382	6.93E-04	0.00E+00	0.00E+00	0.00E+00	6.9306E-04
479224.03	3744677.16	0.06282	6.82E-04	0.00E+00	0.00E+00	0.00E+00	6.8220E-04
479237.13	3744677.16	0.06186	6.72E-04	0.00E+00	0.00E+00	0.00E+00	6.7177E-04
479250.23	3744677.16	0.06091	6.61E-04	0.00E+00	0.00E+00	0.00E+00	6.6146E-04
479263.33	3744677.16	0.06	6.52E-04	0.00E+00	0.00E+00	0.00E+00	6.5157E-04
479276.43	3744677.16	0.0591	6.42E-04	0.00E+00	0.00E+00	0.00E+00	6.4180E-04
479289.53	3744677.16	0.05823	6.32E-04	0.00E+00	0.00E+00	0.00E+00	6.3235E-04
479302.63	3744677.16	0.05738	6.23E-04	0.00E+00	0.00E+00	0.00E+00	6.2312E-04
479315.73	3744677.16	0.05655	6.14E-04	0.00E+00	0.00E+00	0.00E+00	6.1411E-04
479328.83	3744677.16	0.05574	6.05E-04	0.00E+00	0.00E+00	0.00E+00	6.0531E-04
479341.93	3744677.16	0.05494	5.97E-04	0.00E+00	0.00E+00	0.00E+00	5.9662E-04
479355.03	3744677.16	0.05417	5.88E-04	0.00E+00	0.00E+00	0.00E+00	5.8826E-04
479368.13	3744677.16	0.05342	5.80E-04	0.00E+00	0.00E+00	0.00E+00	5.8012E-04
479381.23	3744677.16	0.05269	5.72E-04	0.00E+00	0.00E+00	0.00E+00	5.7219E-04
479394.33	3744677.16	0.05198	5.64E-04	0.00E+00	0.00E+00	0.00E+00	5.6448E-04
479407.43	3744677.16	0.05128	5.57E-04	0.00E+00	0.00E+00	0.00E+00	5.5688E-04
479420.53	3744677.16	0.0506	5.49E-04	0.00E+00	0.00E+00	0.00E+00	5.4949E-04
479433.63	3744677.16	0.04994	5.42E-04	0.00E+00	0.00E+00	0.00E+00	5.4233E-04
479446.73	3744677.16	0.04929	5.35E-04	0.00E+00	0.00E+00	0.00E+00	5.3527E-04
479459.83	3744677.16	0.04865	5.28E-04	0.00E+00	0.00E+00	0.00E+00	5.2832E-04
479472.93	3744677.16	0.04803	5.22E-04	0.00E+00	0.00E+00	0.00E+00	5.2159E-04
479210.93	3744692.27	0.06322	6.87E-04	0.00E+00	0.00E+00	0.00E+00	6.8654E-04
479224.03	3744692.27	0.06224	6.76E-04	0.00E+00	0.00E+00	0.00E+00	6.7590E-04
479237.13	3744692.27	0.06128	6.65E-04	0.00E+00	0.00E+00	0.00E+00	6.6547E-04
479250.23	3744692.27	0.06035	6.55E-04	0.00E+00	0.00E+00	0.00E+00	6.5537E-04
479263.33	3744692.27	0.05945	6.46E-04	0.00E+00	0.00E+00	0.00E+00	6.4560E-04
479276.43	3744692.27	0.05857	6.36E-04	0.00E+00	0.00E+00	0.00E+00	6.3604E-04
479289.53	3744692.27	0.05771	6.27E-04	0.00E+00	0.00E+00	0.00E+00	6.2671E-04
479302.63	3744692.27	0.05687	6.18E-04	0.00E+00	0.00E+00	0.00E+00	6.1758E-04
479315.73	3744692.27	0.05606	6.09E-04	0.00E+00	0.00E+00	0.00E+00	6.0879E-04
479328.83	3744692.27	0.05526	6.00E-04	0.00E+00	0.00E+00	0.00E+00	6.0010E-04
479341.93	3744692.27	0.05447	5.92E-04	0.00E+00	0.00E+00	0.00E+00	5.9152E-04
479355.03	3744692.27	0.05371	5.83E-04	0.00E+00	0.00E+00	0.00E+00	5.8327E-04
479368.13	3744692.27	0.05297	5.75E-04	0.00E+00	0.00E+00	0.00E+00	5.7523E-04
479381.23	3744692.27	0.05225	5.67E-04	0.00E+00	0.00E+00	0.00E+00	5.6741E-04
479394.33	3744692.27	0.05155	5.60E-04	0.00E+00	0.00E+00	0.00E+00	5.5981E-04
479407.43	3744692.27	0.05086	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5232E-04
479420.53	3744692.27	0.05019	5.45E-04	0.00E+00	0.00E+00	0.00E+00	5.4504E-04
479433.63	3744692.27	0.04954	5.38E-04	0.00E+00	0.00E+00	0.00E+00	5.3798E-04
479446.73	3744692.27	0.0489	5.31E-04	0.00E+00	0.00E+00	0.00E+00	5.3103E-04
479459.83	3744692.27	0.04827	5.24E-04	0.00E+00	0.00E+00	0.00E+00	5.2419E-04
479472.93	3744692.27	0.04766	5.18E-04	0.00E+00	0.00E+00	0.00E+00	5.1757E-04
479210.93	3744707.38	0.06262	6.80E-04	0.00E+00	0.00E+00	0.00E+00	6.8003E-04
479224.03	3744707.38	0.06166	6.70E-04	0.00E+00	0.00E+00	0.00E+00	6.6960E-04
479237.13	3744707.38	0.06072	6.59E-04	0.00E+00	0.00E+00	0.00E+00	6.5939E-04
479250.23	3744707.38	0.0598	6.49E-04	0.00E+00	0.00E+00	0.00E+00	6.4940E-04
479263.33	3744707.38	0.05891	6.40E-04	0.00E+00	0.00E+00	0.00E+00	6.3974E-04
479276.43	3744707.38	0.05804	6.30E-04	0.00E+00	0.00E+00	0.00E+00	6.3029E-04
479289.53	3744707.38	0.0572	6.21E-04	0.00E+00	0.00E+00	0.00E+00	6.2117E-04
479302.63	3744707.38	0.05637	6.12E-04	0.00E+00	0.00E+00	0.00E+00	6.1215E-04
479315.73	3744707.38	0.05557	6.03E-04	0.00E+00	0.00E+00	0.00E+00	6.0347E-04
479328.83	3744707.38	0.05478	5.95E-04	0.00E+00	0.00E+00	0.00E+00	5.9489E-04
479341.93	3744707.38	0.054	5.86E-04	0.00E+00	0.00E+00	0.00E+00	5.8642E-04
479355.03	3744707.38	0.05325	5.78E-04	0.00E+00	0.00E+00	0.00E+00	5.7827E-04
479368.13	3744707.38	0.05252	5.70E-04	0.00E+00	0.00E+00	0.00E+00	5.7034E-04
479381.23	3744707.38	0.05181	5.63E-04	0.00E+00	0.00E+00	0.00E+00	5.6263E-04
479394.33	3744707.38	0.05112	5.55E-04	0.00E+00	0.00E+00	0.00E+00	5.5514E-04

479407.43	3744707.38	0.05044	5.48E-04	0.00E+00	0.00E+00	0.00E+00	5.4776E-04
479420.53	3744707.38	0.04978	5.41E-04	0.00E+00	0.00E+00	0.00E+00	5.4059E-04
479433.63	3744707.38	0.04913	5.34E-04	0.00E+00	0.00E+00	0.00E+00	5.3353E-04
479446.73	3744707.38	0.0485	5.27E-04	0.00E+00	0.00E+00	0.00E+00	5.2669E-04
479459.83	3744707.38	0.04788	5.20E-04	0.00E+00	0.00E+00	0.00E+00	5.1996E-04
479472.93	3744707.38	0.04728	5.13E-04	0.00E+00	0.00E+00	0.00E+00	5.1344E-04
479210.93	3744722.49	0.06204	6.74E-04	0.00E+00	0.00E+00	0.00E+00	6.7373E-04
479224.03	3744722.49	0.06109	6.63E-04	0.00E+00	0.00E+00	0.00E+00	6.6341E-04
479237.13	3744722.49	0.06017	6.53E-04	0.00E+00	0.00E+00	0.00E+00	6.5342E-04
479250.23	3744722.49	0.05927	6.44E-04	0.00E+00	0.00E+00	0.00E+00	6.4365E-04
479263.33	3744722.49	0.05839	6.34E-04	0.00E+00	0.00E+00	0.00E+00	6.3409E-04
479276.43	3744722.49	0.05753	6.25E-04	0.00E+00	0.00E+00	0.00E+00	6.2475E-04
479289.53	3744722.49	0.0567	6.16E-04	0.00E+00	0.00E+00	0.00E+00	6.1574E-04
479302.63	3744722.49	0.05588	6.07E-04	0.00E+00	0.00E+00	0.00E+00	6.0683E-04
479315.73	3744722.49	0.05509	5.98E-04	0.00E+00	0.00E+00	0.00E+00	5.9825E-04
479328.83	3744722.49	0.05431	5.90E-04	0.00E+00	0.00E+00	0.00E+00	5.8978E-04
479341.93	3744722.49	0.05355	5.82E-04	0.00E+00	0.00E+00	0.00E+00	5.8153E-04
479355.03	3744722.49	0.0528	5.73E-04	0.00E+00	0.00E+00	0.00E+00	5.7339E-04
479368.13	3744722.49	0.05209	5.66E-04	0.00E+00	0.00E+00	0.00E+00	5.6567E-04
479381.23	3744722.49	0.05139	5.58E-04	0.00E+00	0.00E+00	0.00E+00	5.5807E-04
479394.33	3744722.49	0.0507	5.51E-04	0.00E+00	0.00E+00	0.00E+00	5.5058E-04
479407.43	3744722.49	0.05004	5.43E-04	0.00E+00	0.00E+00	0.00E+00	5.4341E-04
479420.53	3744722.49	0.04938	5.36E-04	0.00E+00	0.00E+00	0.00E+00	5.3625E-04
479433.63	3744722.49	0.04875	5.29E-04	0.00E+00	0.00E+00	0.00E+00	5.2940E-04
479446.73	3744722.49	0.04812	5.23E-04	0.00E+00	0.00E+00	0.00E+00	5.2256E-04
479459.83	3744722.49	0.04752	5.16E-04	0.00E+00	0.00E+00	0.00E+00	5.1605E-04
479472.93	3744722.49	0.04692	5.10E-04	0.00E+00	0.00E+00	0.00E+00	5.0953E-04
479210.93	3744737.60	0.06149	6.68E-04	0.00E+00	0.00E+00	0.00E+00	6.6775E-04
479224.03	3744737.60	0.06055	6.58E-04	0.00E+00	0.00E+00	0.00E+00	6.5755E-04
479237.13	3744737.60	0.05964	6.48E-04	0.00E+00	0.00E+00	0.00E+00	6.4766E-04
479250.23	3744737.60	0.05875	6.38E-04	0.00E+00	0.00E+00	0.00E+00	6.3800E-04
479263.33	3744737.60	0.05788	6.29E-04	0.00E+00	0.00E+00	0.00E+00	6.2855E-04
479276.43	3744737.60	0.05704	6.19E-04	0.00E+00	0.00E+00	0.00E+00	6.1943E-04
479289.53	3744737.60	0.05622	6.11E-04	0.00E+00	0.00E+00	0.00E+00	6.1052E-04
479302.63	3744737.60	0.05542	6.02E-04	0.00E+00	0.00E+00	0.00E+00	6.0184E-04
479315.73	3744737.60	0.05464	5.93E-04	0.00E+00	0.00E+00	0.00E+00	5.9337E-04
479328.83	3744737.60	0.05387	5.85E-04	0.00E+00	0.00E+00	0.00E+00	5.8500E-04
479341.93	3744737.60	0.05311	5.77E-04	0.00E+00	0.00E+00	0.00E+00	5.7675E-04
479355.03	3744737.60	0.05238	5.69E-04	0.00E+00	0.00E+00	0.00E+00	5.6882E-04
479368.13	3744737.60	0.05167	5.61E-04	0.00E+00	0.00E+00	0.00E+00	5.6111E-04
479381.23	3744737.60	0.05098	5.54E-04	0.00E+00	0.00E+00	0.00E+00	5.5362E-04
479394.33	3744737.60	0.0503	5.46E-04	0.00E+00	0.00E+00	0.00E+00	5.4624E-04
479407.43	3744737.60	0.04964	5.39E-04	0.00E+00	0.00E+00	0.00E+00	5.3907E-04
479420.53	3744737.60	0.049	5.32E-04	0.00E+00	0.00E+00	0.00E+00	5.3212E-04
479433.63	3744737.60	0.04837	5.25E-04	0.00E+00	0.00E+00	0.00E+00	5.2528E-04
479446.73	3744737.60	0.04775	5.19E-04	0.00E+00	0.00E+00	0.00E+00	5.1854E-04
479459.83	3744737.60	0.04715	5.12E-04	0.00E+00	0.00E+00	0.00E+00	5.1203E-04
479472.93	3744737.60	0.04656	5.06E-04	0.00E+00	0.00E+00	0.00E+00	5.0562E-04
479210.93	3744752.71	0.06095	6.62E-04	0.00E+00	0.00E+00	0.00E+00	6.6189E-04
479224.03	3744752.71	0.06002	6.52E-04	0.00E+00	0.00E+00	0.00E+00	6.5179E-04
479237.13	3744752.71	0.05912	6.42E-04	0.00E+00	0.00E+00	0.00E+00	6.4202E-04
479250.23	3744752.71	0.05825	6.33E-04	0.00E+00	0.00E+00	0.00E+00	6.3257E-04
479263.33	3744752.71	0.05739	6.23E-04	0.00E+00	0.00E+00	0.00E+00	6.2323E-04
479276.43	3744752.71	0.05656	6.14E-04	0.00E+00	0.00E+00	0.00E+00	6.1422E-04
479289.53	3744752.71	0.05575	6.05E-04	0.00E+00	0.00E+00	0.00E+00	6.0542E-04
479302.63	3744752.71	0.05496	5.97E-04	0.00E+00	0.00E+00	0.00E+00	5.9684E-04
479315.73	3744752.71	0.05418	5.88E-04	0.00E+00	0.00E+00	0.00E+00	5.8837E-04
479328.83	3744752.71	0.05342	5.80E-04	0.00E+00	0.00E+00	0.00E+00	5.8012E-04
479341.93	3744752.71	0.05268	5.72E-04	0.00E+00	0.00E+00	0.00E+00	5.7208E-04
479355.03	3744752.71	0.05195	5.64E-04	0.00E+00	0.00E+00	0.00E+00	5.6415E-04
479368.13	3744752.71	0.05126	5.57E-04	0.00E+00	0.00E+00	0.00E+00	5.5666E-04
479381.23	3744752.71	0.05057	5.49E-04	0.00E+00	0.00E+00	0.00E+00	5.4917E-04
479394.33	3744752.71	0.04991	5.42E-04	0.00E+00	0.00E+00	0.00E+00	5.4200E-04
479407.43	3744752.71	0.04926	5.35E-04	0.00E+00	0.00E+00	0.00E+00	5.3494E-04
479420.53	3744752.71	0.04862	5.28E-04	0.00E+00	0.00E+00	0.00E+00	5.2799E-04
479433.63	3744752.71	0.048	5.21E-04	0.00E+00	0.00E+00	0.00E+00	5.2126E-04

479446.73	3744752.71	0.04739	5.15E-04	0.00E+00	0.00E+00	0.00E+00	5.1463E-04
479459.83	3744752.71	0.0468	5.08E-04	0.00E+00	0.00E+00	0.00E+00	5.0823E-04
479472.93	3744752.71	0.04622	5.02E-04	0.00E+00	0.00E+00	0.00E+00	5.0193E-04
479210.93	3744767.82	0.06041	6.56E-04	0.00E+00	0.00E+00	0.00E+00	6.5603E-04
479224.03	3744767.82	0.0595	6.46E-04	0.00E+00	0.00E+00	0.00E+00	6.4614E-04
479237.13	3744767.82	0.05862	6.37E-04	0.00E+00	0.00E+00	0.00E+00	6.3659E-04
479250.23	3744767.82	0.05775	6.27E-04	0.00E+00	0.00E+00	0.00E+00	6.2714E-04
479263.33	3744767.82	0.05691	6.18E-04	0.00E+00	0.00E+00	0.00E+00	6.1802E-04
479276.43	3744767.82	0.05609	6.09E-04	0.00E+00	0.00E+00	0.00E+00	6.0911E-04
479289.53	3744767.82	0.05529	6.00E-04	0.00E+00	0.00E+00	0.00E+00	6.0043E-04
479302.63	3744767.82	0.05451	5.92E-04	0.00E+00	0.00E+00	0.00E+00	5.9196E-04
479315.73	3744767.82	0.05375	5.84E-04	0.00E+00	0.00E+00	0.00E+00	5.8370E-04
479328.83	3744767.82	0.053	5.76E-04	0.00E+00	0.00E+00	0.00E+00	5.7556E-04
479341.93	3744767.82	0.05226	5.68E-04	0.00E+00	0.00E+00	0.00E+00	5.6752E-04
479355.03	3744767.82	0.05155	5.60E-04	0.00E+00	0.00E+00	0.00E+00	5.5981E-04
479368.13	3744767.82	0.05086	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5232E-04
479381.23	3744767.82	0.05019	5.45E-04	0.00E+00	0.00E+00	0.00E+00	5.4504E-04
479394.33	3744767.82	0.04953	5.38E-04	0.00E+00	0.00E+00	0.00E+00	5.3787E-04
479407.43	3744767.82	0.04889	5.31E-04	0.00E+00	0.00E+00	0.00E+00	5.3092E-04
479420.53	3744767.82	0.04826	5.24E-04	0.00E+00	0.00E+00	0.00E+00	5.2408E-04
479433.63	3744767.82	0.04765	5.17E-04	0.00E+00	0.00E+00	0.00E+00	5.1746E-04
479446.73	3744767.82	0.04705	5.11E-04	0.00E+00	0.00E+00	0.00E+00	5.1094E-04
479459.83	3744767.82	0.04646	5.05E-04	0.00E+00	0.00E+00	0.00E+00	5.0454E-04
479472.93	3744767.82	0.04589	4.98E-04	0.00E+00	0.00E+00	0.00E+00	4.9835E-04
479210.93	3744782.93	0.0599	6.50E-04	0.00E+00	0.00E+00	0.00E+00	6.5049E-04
479224.03	3744782.93	0.059	6.41E-04	0.00E+00	0.00E+00	0.00E+00	6.4071E-04
479237.13	3744782.93	0.05813	6.31E-04	0.00E+00	0.00E+00	0.00E+00	6.3127E-04
479250.23	3744782.93	0.05728	6.22E-04	0.00E+00	0.00E+00	0.00E+00	6.2204E-04
479263.33	3744782.93	0.05645	6.13E-04	0.00E+00	0.00E+00	0.00E+00	6.1302E-04
479276.43	3744782.93	0.05564	6.04E-04	0.00E+00	0.00E+00	0.00E+00	6.0423E-04
479289.53	3744782.93	0.05485	5.96E-04	0.00E+00	0.00E+00	0.00E+00	5.9565E-04
479302.63	3744782.93	0.05408	5.87E-04	0.00E+00	0.00E+00	0.00E+00	5.8729E-04
479315.73	3744782.93	0.05333	5.79E-04	0.00E+00	0.00E+00	0.00E+00	5.7914E-04
479328.83	3744782.93	0.05259	5.71E-04	0.00E+00	0.00E+00	0.00E+00	5.7110E-04
479341.93	3744782.93	0.05187	5.63E-04	0.00E+00	0.00E+00	0.00E+00	5.6329E-04
479355.03	3744782.93	0.05117	5.56E-04	0.00E+00	0.00E+00	0.00E+00	5.5568E-04
479368.13	3744782.93	0.05048	5.48E-04	0.00E+00	0.00E+00	0.00E+00	5.4819E-04
479381.23	3744782.93	0.04981	5.41E-04	0.00E+00	0.00E+00	0.00E+00	5.4092E-04
479394.33	3744782.93	0.04916	5.34E-04	0.00E+00	0.00E+00	0.00E+00	5.3386E-04
479407.43	3744782.93	0.04853	5.27E-04	0.00E+00	0.00E+00	0.00E+00	5.2701E-04
479420.53	3744782.93	0.04791	5.20E-04	0.00E+00	0.00E+00	0.00E+00	5.2028E-04
479433.63	3744782.93	0.0473	5.14E-04	0.00E+00	0.00E+00	0.00E+00	5.1366E-04
479446.73	3744782.93	0.04671	5.07E-04	0.00E+00	0.00E+00	0.00E+00	5.0725E-04
479459.83	3744782.93	0.04613	5.01E-04	0.00E+00	0.00E+00	0.00E+00	5.0095E-04
479472.93	3744782.93	0.04557	4.95E-04	0.00E+00	0.00E+00	0.00E+00	4.9487E-04
479210.93	3744798.04	0.05943	6.45E-04	0.00E+00	0.00E+00	0.00E+00	6.4538E-04
479224.03	3744798.04	0.05854	6.36E-04	0.00E+00	0.00E+00	0.00E+00	6.3572E-04
479237.13	3744798.04	0.05768	6.26E-04	0.00E+00	0.00E+00	0.00E+00	6.2638E-04
479250.23	3744798.04	0.05683	6.17E-04	0.00E+00	0.00E+00	0.00E+00	6.1715E-04
479263.33	3744798.04	0.05601	6.08E-04	0.00E+00	0.00E+00	0.00E+00	6.0824E-04
479276.43	3744798.04	0.05522	6.00E-04	0.00E+00	0.00E+00	0.00E+00	5.9967E-04
479289.53	3744798.04	0.05444	5.91E-04	0.00E+00	0.00E+00	0.00E+00	5.9119E-04
479302.63	3744798.04	0.05368	5.83E-04	0.00E+00	0.00E+00	0.00E+00	5.8294E-04
479315.73	3744798.04	0.05294	5.75E-04	0.00E+00	0.00E+00	0.00E+00	5.7491E-04
479328.83	3744798.04	0.05221	5.67E-04	0.00E+00	0.00E+00	0.00E+00	5.6698E-04
479341.93	3744798.04	0.05151	5.59E-04	0.00E+00	0.00E+00	0.00E+00	5.5938E-04
479355.03	3744798.04	0.05081	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5177E-04
479368.13	3744798.04	0.05013	5.44E-04	0.00E+00	0.00E+00	0.00E+00	5.4439E-04
479381.23	3744798.04	0.04946	5.37E-04	0.00E+00	0.00E+00	0.00E+00	5.3711E-04
479394.33	3744798.04	0.04882	5.30E-04	0.00E+00	0.00E+00	0.00E+00	5.3016E-04
479407.43	3744798.04	0.04819	5.23E-04	0.00E+00	0.00E+00	0.00E+00	5.2332E-04
479420.53	3744798.04	0.04758	5.17E-04	0.00E+00	0.00E+00	0.00E+00	5.1670E-04
479433.63	3744798.04	0.04698	5.10E-04	0.00E+00	0.00E+00	0.00E+00	5.1018E-04
479446.73	3744798.04	0.0464	5.04E-04	0.00E+00	0.00E+00	0.00E+00	5.0388E-04
479459.83	3744798.04	0.04583	4.98E-04	0.00E+00	0.00E+00	0.00E+00	4.9769E-04
479472.93	3744798.04	0.04527	4.92E-04	0.00E+00	0.00E+00	0.00E+00	4.9161E-04

479210.93	3744813.15	0.05896	6.40E-04	0.00E+00	0.00E+00	0.00E+00	6.4028E-04
479224.03	3744813.15	0.05808	6.31E-04	0.00E+00	0.00E+00	0.00E+00	6.3072E-04
479237.13	3744813.15	0.05723	6.21E-04	0.00E+00	0.00E+00	0.00E+00	6.2149E-04
479250.23	3744813.15	0.0564	6.12E-04	0.00E+00	0.00E+00	0.00E+00	6.1248E-04
479263.33	3744813.15	0.05559	6.04E-04	0.00E+00	0.00E+00	0.00E+00	6.0368E-04
479276.43	3744813.15	0.0548	5.95E-04	0.00E+00	0.00E+00	0.00E+00	5.9510E-04
479289.53	3744813.15	0.05403	5.87E-04	0.00E+00	0.00E+00	0.00E+00	5.8674E-04
479302.63	3744813.15	0.05328	5.79E-04	0.00E+00	0.00E+00	0.00E+00	5.7860E-04
479315.73	3744813.15	0.05255	5.71E-04	0.00E+00	0.00E+00	0.00E+00	5.7067E-04
479328.83	3744813.15	0.05183	5.63E-04	0.00E+00	0.00E+00	0.00E+00	5.6285E-04
479341.93	3744813.15	0.05113	5.55E-04	0.00E+00	0.00E+00	0.00E+00	5.5525E-04
479355.03	3744813.15	0.05045	5.48E-04	0.00E+00	0.00E+00	0.00E+00	5.4787E-04
479368.13	3744813.15	0.04977	5.40E-04	0.00E+00	0.00E+00	0.00E+00	5.4048E-04
479381.23	3744813.15	0.04911	5.33E-04	0.00E+00	0.00E+00	0.00E+00	5.3331E-04
479394.33	3744813.15	0.04848	5.26E-04	0.00E+00	0.00E+00	0.00E+00	5.2647E-04
479407.43	3744813.15	0.04786	5.20E-04	0.00E+00	0.00E+00	0.00E+00	5.1974E-04
479420.53	3744813.15	0.04725	5.13E-04	0.00E+00	0.00E+00	0.00E+00	5.1311E-04
479433.63	3744813.15	0.04666	5.07E-04	0.00E+00	0.00E+00	0.00E+00	5.0671E-04
479446.73	3744813.15	0.04608	5.00E-04	0.00E+00	0.00E+00	0.00E+00	5.0041E-04
479459.83	3744813.15	0.04551	4.94E-04	0.00E+00	0.00E+00	0.00E+00	4.9422E-04
479472.93	3744813.15	0.04496	4.88E-04	0.00E+00	0.00E+00	0.00E+00	4.8825E-04
479210.93	3744828.26	0.05852	6.36E-04	0.00E+00	0.00E+00	0.00E+00	6.3550E-04
479224.03	3744828.26	0.05765	6.26E-04	0.00E+00	0.00E+00	0.00E+00	6.2605E-04
479237.13	3744828.26	0.05681	6.17E-04	0.00E+00	0.00E+00	0.00E+00	6.1693E-04
479250.23	3744828.26	0.05599	6.08E-04	0.00E+00	0.00E+00	0.00E+00	6.0803E-04
479263.33	3744828.26	0.05519	5.99E-04	0.00E+00	0.00E+00	0.00E+00	5.9934E-04
479276.43	3744828.26	0.05441	5.91E-04	0.00E+00	0.00E+00	0.00E+00	5.9087E-04
479289.53	3744828.26	0.05365	5.83E-04	0.00E+00	0.00E+00	0.00E+00	5.8262E-04
479302.63	3744828.26	0.05291	5.75E-04	0.00E+00	0.00E+00	0.00E+00	5.7458E-04
479315.73	3744828.26	0.05218	5.67E-04	0.00E+00	0.00E+00	0.00E+00	5.6665E-04
479328.83	3744828.26	0.05148	5.59E-04	0.00E+00	0.00E+00	0.00E+00	5.5905E-04
479341.93	3744828.26	0.05079	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5156E-04
479355.03	3744828.26	0.05011	5.44E-04	0.00E+00	0.00E+00	0.00E+00	5.4417E-04
479368.13	3744828.26	0.04944	5.37E-04	0.00E+00	0.00E+00	0.00E+00	5.3690E-04
479381.23	3744828.26	0.04879	5.30E-04	0.00E+00	0.00E+00	0.00E+00	5.2984E-04
479394.33	3744828.26	0.04816	5.23E-04	0.00E+00	0.00E+00	0.00E+00	5.2300E-04
479407.43	3744828.26	0.04755	5.16E-04	0.00E+00	0.00E+00	0.00E+00	5.1637E-04
479420.53	3744828.26	0.04695	5.10E-04	0.00E+00	0.00E+00	0.00E+00	5.0986E-04
479433.63	3744828.26	0.04636	5.03E-04	0.00E+00	0.00E+00	0.00E+00	5.0345E-04
479446.73	3744828.26	0.04579	4.97E-04	0.00E+00	0.00E+00	0.00E+00	4.9726E-04
479459.83	3744828.26	0.04523	4.91E-04	0.00E+00	0.00E+00	0.00E+00	4.9118E-04
479472.93	3744828.26	0.04468	4.85E-04	0.00E+00	0.00E+00	0.00E+00	4.8521E-04
479210.93	3744843.37	0.0581	6.31E-04	0.00E+00	0.00E+00	0.00E+00	6.3094E-04
479224.03	3744843.37	0.05724	6.22E-04	0.00E+00	0.00E+00	0.00E+00	6.2160E-04
479237.13	3744843.37	0.05641	6.13E-04	0.00E+00	0.00E+00	0.00E+00	6.1259E-04
479250.23	3744843.37	0.0556	6.04E-04	0.00E+00	0.00E+00	0.00E+00	6.0379E-04
479263.33	3744843.37	0.05481	5.95E-04	0.00E+00	0.00E+00	0.00E+00	5.9521E-04
479276.43	3744843.37	0.05404	5.87E-04	0.00E+00	0.00E+00	0.00E+00	5.8685E-04
479289.53	3744843.37	0.05328	5.79E-04	0.00E+00	0.00E+00	0.00E+00	5.7860E-04
479302.63	3744843.37	0.05255	5.71E-04	0.00E+00	0.00E+00	0.00E+00	5.7067E-04
479315.73	3744843.37	0.05183	5.63E-04	0.00E+00	0.00E+00	0.00E+00	5.6285E-04
479328.83	3744843.37	0.05113	5.55E-04	0.00E+00	0.00E+00	0.00E+00	5.5525E-04
479341.93	3744843.37	0.05045	5.48E-04	0.00E+00	0.00E+00	0.00E+00	5.4787E-04
479355.03	3744843.37	0.04978	5.41E-04	0.00E+00	0.00E+00	0.00E+00	5.4059E-04
479368.13	3744843.37	0.04912	5.33E-04	0.00E+00	0.00E+00	0.00E+00	5.3342E-04
479381.23	3744843.37	0.04847	5.26E-04	0.00E+00	0.00E+00	0.00E+00	5.2636E-04
479394.33	3744843.37	0.04785	5.20E-04	0.00E+00	0.00E+00	0.00E+00	5.1963E-04
479407.43	3744843.37	0.04724	5.13E-04	0.00E+00	0.00E+00	0.00E+00	5.1301E-04
479420.53	3744843.37	0.04665	5.07E-04	0.00E+00	0.00E+00	0.00E+00	5.0660E-04
479433.63	3744843.37	0.04607	5.00E-04	0.00E+00	0.00E+00	0.00E+00	5.0030E-04
479446.73	3744843.37	0.0455	4.94E-04	0.00E+00	0.00E+00	0.00E+00	4.9411E-04
479459.83	3744843.37	0.04495	4.88E-04	0.00E+00	0.00E+00	0.00E+00	4.8814E-04
479472.93	3744843.37	0.0444	4.82E-04	0.00E+00	0.00E+00	0.00E+00	4.8216E-04
479210.93	3744858.48	0.05772	6.27E-04	0.00E+00	0.00E+00	0.00E+00	6.2681E-04
479224.03	3744858.48	0.05688	6.18E-04	0.00E+00	0.00E+00	0.00E+00	6.1769E-04
479237.13	3744858.48	0.05605	6.09E-04	0.00E+00	0.00E+00	0.00E+00	6.0868E-04

479250.23	3744858.48	0.05525	6.00E-04	0.00E+00	0.00E+00	0.00E+00	5.9999E-04
479263.33	3744858.48	0.05446	5.91E-04	0.00E+00	0.00E+00	0.00E+00	5.9141E-04
479276.43	3744858.48	0.0537	5.83E-04	0.00E+00	0.00E+00	0.00E+00	5.8316E-04
479289.53	3744858.48	0.05295	5.75E-04	0.00E+00	0.00E+00	0.00E+00	5.7501E-04
479302.63	3744858.48	0.05222	5.67E-04	0.00E+00	0.00E+00	0.00E+00	5.6709E-04
479315.73	3744858.48	0.05151	5.59E-04	0.00E+00	0.00E+00	0.00E+00	5.5938E-04
479328.83	3744858.48	0.05082	5.52E-04	0.00E+00	0.00E+00	0.00E+00	5.5188E-04
479341.93	3744858.48	0.05014	5.44E-04	0.00E+00	0.00E+00	0.00E+00	5.4450E-04
479355.03	3744858.48	0.04948	5.37E-04	0.00E+00	0.00E+00	0.00E+00	5.3733E-04
479368.13	3744858.48	0.04882	5.30E-04	0.00E+00	0.00E+00	0.00E+00	5.3016E-04
479381.23	3744858.48	0.04818	5.23E-04	0.00E+00	0.00E+00	0.00E+00	5.2321E-04
479394.33	3744858.48	0.04757	5.17E-04	0.00E+00	0.00E+00	0.00E+00	5.1659E-04
479407.43	3744858.48	0.04697	5.10E-04	0.00E+00	0.00E+00	0.00E+00	5.1007E-04
479420.53	3744858.48	0.04638	5.04E-04	0.00E+00	0.00E+00	0.00E+00	5.0367E-04
479433.63	3744858.48	0.04581	4.97E-04	0.00E+00	0.00E+00	0.00E+00	4.9748E-04
479446.73	3744858.48	0.04524	4.91E-04	0.00E+00	0.00E+00	0.00E+00	4.9129E-04
479459.83	3744858.48	0.04469	4.85E-04	0.00E+00	0.00E+00	0.00E+00	4.8531E-04
479472.93	3744858.48	0.04416	4.80E-04	0.00E+00	0.00E+00	0.00E+00	4.7956E-04
477060.35	3744208.50	0.33292	3.62E-03	0.00E+00	0.00E+00	0.00E+00	3.6154E-03
477078.41	3744208.50	0.33935	3.69E-03	0.00E+00	0.00E+00	0.00E+00	3.6852E-03
477096.47	3744208.50	0.34591	3.76E-03	0.00E+00	0.00E+00	0.00E+00	3.7564E-03
477114.53	3744208.50	0.35287	3.83E-03	0.00E+00	0.00E+00	0.00E+00	3.8320E-03
477132.59	3744208.50	0.36012	3.91E-03	0.00E+00	0.00E+00	0.00E+00	3.9107E-03
477150.65	3744208.50	0.36777	3.99E-03	0.00E+00	0.00E+00	0.00E+00	3.9938E-03
477168.71	3744208.50	0.37541	4.08E-03	0.00E+00	0.00E+00	0.00E+00	4.0768E-03
477186.77	3744208.50	0.38301	4.16E-03	0.00E+00	0.00E+00	0.00E+00	4.1593E-03
477204.83	3744208.50	0.39086	4.24E-03	0.00E+00	0.00E+00	0.00E+00	4.2446E-03
477222.89	3744208.50	0.39899	4.33E-03	0.00E+00	0.00E+00	0.00E+00	4.3329E-03
477240.95	3744208.50	0.40742	4.42E-03	0.00E+00	0.00E+00	0.00E+00	4.4244E-03
477259.01	3744208.50	0.41683	4.53E-03	0.00E+00	0.00E+00	0.00E+00	4.5266E-03
477277.07	3744208.50	0.42737	4.64E-03	0.00E+00	0.00E+00	0.00E+00	4.6411E-03
477295.13	3744208.50	0.44043	4.78E-03	0.00E+00	0.00E+00	0.00E+00	4.7829E-03
477313.19	3744208.50	0.4507	4.89E-03	0.00E+00	0.00E+00	0.00E+00	4.8944E-03
477331.25	3744208.50	0.46139	5.01E-03	0.00E+00	0.00E+00	0.00E+00	5.0105E-03
477349.31	3744208.50	0.47252	5.13E-03	0.00E+00	0.00E+00	0.00E+00	5.1314E-03
477367.37	3744208.50	0.48413	5.26E-03	0.00E+00	0.00E+00	0.00E+00	5.2574E-03
477385.43	3744208.50	0.49625	5.39E-03	0.00E+00	0.00E+00	0.00E+00	5.3891E-03
477403.49	3744208.50	0.509	5.53E-03	0.00E+00	0.00E+00	0.00E+00	5.5275E-03
477421.55	3744208.50	0.52279	5.68E-03	0.00E+00	0.00E+00	0.00E+00	5.6773E-03
477060.35	3744217.03	0.33699	3.66E-03	0.00E+00	0.00E+00	0.00E+00	3.6596E-03
477078.41	3744217.03	0.34365	3.73E-03	0.00E+00	0.00E+00	0.00E+00	3.7319E-03
477096.47	3744217.03	0.35045	3.81E-03	0.00E+00	0.00E+00	0.00E+00	3.8057E-03
477114.53	3744217.03	0.35782	3.89E-03	0.00E+00	0.00E+00	0.00E+00	3.8858E-03
477132.59	3744217.03	0.36549	3.97E-03	0.00E+00	0.00E+00	0.00E+00	3.9691E-03
477150.65	3744217.03	0.37316	4.05E-03	0.00E+00	0.00E+00	0.00E+00	4.0524E-03
477168.71	3744217.03	0.38091	4.14E-03	0.00E+00	0.00E+00	0.00E+00	4.1365E-03
477186.77	3744217.03	0.38877	4.22E-03	0.00E+00	0.00E+00	0.00E+00	4.2219E-03
477204.83	3744217.03	0.39689	4.31E-03	0.00E+00	0.00E+00	0.00E+00	4.3101E-03
477222.89	3744217.03	0.40528	4.40E-03	0.00E+00	0.00E+00	0.00E+00	4.4012E-03
477240.95	3744217.03	0.41398	4.50E-03	0.00E+00	0.00E+00	0.00E+00	4.4956E-03
477259.01	3744217.03	0.42368	4.60E-03	0.00E+00	0.00E+00	0.00E+00	4.6010E-03
477277.07	3744217.03	0.43454	4.72E-03	0.00E+00	0.00E+00	0.00E+00	4.7189E-03
477295.13	3744217.03	0.44788	4.86E-03	0.00E+00	0.00E+00	0.00E+00	4.8638E-03
477313.19	3744217.03	0.4585	4.98E-03	0.00E+00	0.00E+00	0.00E+00	4.9791E-03
477331.25	3744217.03	0.46954	5.10E-03	0.00E+00	0.00E+00	0.00E+00	5.0990E-03
477349.31	3744217.03	0.48106	5.22E-03	0.00E+00	0.00E+00	0.00E+00	5.2241E-03
477367.37	3744217.03	0.49306	5.35E-03	0.00E+00	0.00E+00	0.00E+00	5.3544E-03
477385.43	3744217.03	0.50559	5.49E-03	0.00E+00	0.00E+00	0.00E+00	5.4905E-03
477403.49	3744217.03	0.51885	5.63E-03	0.00E+00	0.00E+00	0.00E+00	5.6345E-03
477421.55	3744217.03	0.53352	5.79E-03	0.00E+00	0.00E+00	0.00E+00	5.7938E-03
477060.35	3744225.56	0.34108	3.70E-03	0.00E+00	0.00E+00	0.00E+00	3.7040E-03
477078.41	3744225.56	0.34798	3.78E-03	0.00E+00	0.00E+00	0.00E+00	3.7789E-03
477096.47	3744225.56	0.35503	3.86E-03	0.00E+00	0.00E+00	0.00E+00	3.8555E-03
477114.53	3744225.56	0.36282	3.94E-03	0.00E+00	0.00E+00	0.00E+00	3.9401E-03
477132.59	3744225.56	0.37093	4.03E-03	0.00E+00	0.00E+00	0.00E+00	4.0281E-03
477150.65	3744225.56	0.37862	4.11E-03	0.00E+00	0.00E+00	0.00E+00	4.1116E-03

477168.71	3744225.56	0.38653	4.20E-03	0.00E+00	0.00E+00	0.00E+00	4.1975E-03
477186.77	3744225.56	0.39465	4.29E-03	0.00E+00	0.00E+00	0.00E+00	4.2857E-03
477204.83	3744225.56	0.40304	4.38E-03	0.00E+00	0.00E+00	0.00E+00	4.3768E-03
477222.89	3744225.56	0.41171	4.47E-03	0.00E+00	0.00E+00	0.00E+00	4.4710E-03
477240.95	3744225.56	0.42071	4.57E-03	0.00E+00	0.00E+00	0.00E+00	4.5687E-03
477259.01	3744225.56	0.4307	4.68E-03	0.00E+00	0.00E+00	0.00E+00	4.6772E-03
477277.07	3744225.56	0.44189	4.80E-03	0.00E+00	0.00E+00	0.00E+00	4.7987E-03
477295.13	3744225.56	0.45553	4.95E-03	0.00E+00	0.00E+00	0.00E+00	4.9469E-03
477313.19	3744225.56	0.4665	5.07E-03	0.00E+00	0.00E+00	0.00E+00	5.0660E-03
477331.25	3744225.56	0.47792	5.19E-03	0.00E+00	0.00E+00	0.00E+00	5.1900E-03
477349.31	3744225.56	0.48983	5.32E-03	0.00E+00	0.00E+00	0.00E+00	5.3193E-03
477367.37	3744225.56	0.50225	5.45E-03	0.00E+00	0.00E+00	0.00E+00	5.4542E-03
477385.43	3744225.56	0.51521	5.59E-03	0.00E+00	0.00E+00	0.00E+00	5.5950E-03
477403.49	3744225.56	0.52903	5.75E-03	0.00E+00	0.00E+00	0.00E+00	5.7450E-03
477421.55	3744225.56	0.54463	5.91E-03	0.00E+00	0.00E+00	0.00E+00	5.9144E-03
477060.35	3744234.09	0.34519	3.75E-03	0.00E+00	0.00E+00	0.00E+00	3.7486E-03
477078.41	3744234.09	0.35243	3.83E-03	0.00E+00	0.00E+00	0.00E+00	3.8272E-03
477096.47	3744234.09	0.35991	3.91E-03	0.00E+00	0.00E+00	0.00E+00	3.9085E-03
477114.53	3744234.09	0.36788	4.00E-03	0.00E+00	0.00E+00	0.00E+00	3.9950E-03
477132.59	3744234.09	0.37611	4.08E-03	0.00E+00	0.00E+00	0.00E+00	4.0844E-03
477150.65	3744234.09	0.38406	4.17E-03	0.00E+00	0.00E+00	0.00E+00	4.1707E-03
477168.71	3744234.09	0.39223	4.26E-03	0.00E+00	0.00E+00	0.00E+00	4.2594E-03
477186.77	3744234.09	0.40065	4.35E-03	0.00E+00	0.00E+00	0.00E+00	4.3509E-03
477204.83	3744234.09	0.40932	4.45E-03	0.00E+00	0.00E+00	0.00E+00	4.4450E-03
477222.89	3744234.09	0.41835	4.54E-03	0.00E+00	0.00E+00	0.00E+00	4.5431E-03
477240.95	3744234.09	0.42799	4.65E-03	0.00E+00	0.00E+00	0.00E+00	4.6478E-03
477259.01	3744234.09	0.43833	4.76E-03	0.00E+00	0.00E+00	0.00E+00	4.7601E-03
477277.07	3744234.09	0.44949	4.88E-03	0.00E+00	0.00E+00	0.00E+00	4.8813E-03
477295.13	3744234.09	0.46338	5.03E-03	0.00E+00	0.00E+00	0.00E+00	5.0321E-03
477313.19	3744234.09	0.47472	5.16E-03	0.00E+00	0.00E+00	0.00E+00	5.1553E-03
477331.25	3744234.09	0.48654	5.28E-03	0.00E+00	0.00E+00	0.00E+00	5.2836E-03
477349.31	3744234.09	0.49885	5.42E-03	0.00E+00	0.00E+00	0.00E+00	5.4173E-03
477367.37	3744234.09	0.51171	5.56E-03	0.00E+00	0.00E+00	0.00E+00	5.5569E-03
477385.43	3744234.09	0.52513	5.70E-03	0.00E+00	0.00E+00	0.00E+00	5.7027E-03
477403.49	3744234.09	0.53943	5.86E-03	0.00E+00	0.00E+00	0.00E+00	5.8580E-03
477421.55	3744234.09	0.55562	6.03E-03	0.00E+00	0.00E+00	0.00E+00	6.0338E-03
477060.35	3744242.62	0.34932	3.79E-03	0.00E+00	0.00E+00	0.00E+00	3.7935E-03
477078.41	3744242.62	0.3569	3.88E-03	0.00E+00	0.00E+00	0.00E+00	3.8758E-03
477096.47	3744242.62	0.36485	3.96E-03	0.00E+00	0.00E+00	0.00E+00	3.9621E-03
477114.53	3744242.62	0.37299	4.05E-03	0.00E+00	0.00E+00	0.00E+00	4.0505E-03
477132.59	3744242.62	0.38132	4.14E-03	0.00E+00	0.00E+00	0.00E+00	4.1410E-03
477150.65	3744242.62	0.38957	4.23E-03	0.00E+00	0.00E+00	0.00E+00	4.2306E-03
477168.71	3744242.62	0.39804	4.32E-03	0.00E+00	0.00E+00	0.00E+00	4.3225E-03
477186.77	3744242.62	0.40675	4.42E-03	0.00E+00	0.00E+00	0.00E+00	4.4171E-03
477204.83	3744242.62	0.41573	4.51E-03	0.00E+00	0.00E+00	0.00E+00	4.5146E-03
477222.89	3744242.62	0.42513	4.62E-03	0.00E+00	0.00E+00	0.00E+00	4.6167E-03
477240.95	3744242.62	0.43547	4.73E-03	0.00E+00	0.00E+00	0.00E+00	4.7290E-03
477259.01	3744242.62	0.44618	4.85E-03	0.00E+00	0.00E+00	0.00E+00	4.8453E-03
477277.07	3744242.62	0.4573	4.97E-03	0.00E+00	0.00E+00	0.00E+00	4.9661E-03
477295.13	3744242.62	0.47143	5.12E-03	0.00E+00	0.00E+00	0.00E+00	5.1195E-03
477313.19	3744242.62	0.48317	5.25E-03	0.00E+00	0.00E+00	0.00E+00	5.2470E-03
477331.25	3744242.62	0.49539	5.38E-03	0.00E+00	0.00E+00	0.00E+00	5.3797E-03
477349.31	3744242.62	0.50814	5.52E-03	0.00E+00	0.00E+00	0.00E+00	5.5182E-03
477367.37	3744242.62	0.52144	5.66E-03	0.00E+00	0.00E+00	0.00E+00	5.6626E-03
477385.43	3744242.62	0.53534	5.81E-03	0.00E+00	0.00E+00	0.00E+00	5.8136E-03
477403.49	3744242.62	0.55017	5.97E-03	0.00E+00	0.00E+00	0.00E+00	5.9746E-03
477421.55	3744242.62	0.56694	6.16E-03	0.00E+00	0.00E+00	0.00E+00	6.1567E-03
477060.35	3744251.15	0.35345	3.84E-03	0.00E+00	0.00E+00	0.00E+00	3.8383E-03
477078.41	3744251.15	0.36139	3.92E-03	0.00E+00	0.00E+00	0.00E+00	3.9245E-03
477096.47	3744251.15	0.36981	4.02E-03	0.00E+00	0.00E+00	0.00E+00	4.0160E-03
477114.53	3744251.15	0.37814	4.11E-03	0.00E+00	0.00E+00	0.00E+00	4.1064E-03
477132.59	3744251.15	0.38659	4.20E-03	0.00E+00	0.00E+00	0.00E+00	4.1982E-03
477150.65	3744251.15	0.39515	4.29E-03	0.00E+00	0.00E+00	0.00E+00	4.2912E-03
477168.71	3744251.15	0.40393	4.39E-03	0.00E+00	0.00E+00	0.00E+00	4.3865E-03
477186.77	3744251.15	0.41296	4.48E-03	0.00E+00	0.00E+00	0.00E+00	4.4846E-03
477204.83	3744251.15	0.42227	4.59E-03	0.00E+00	0.00E+00	0.00E+00	4.5857E-03

477222.89	3744251.15	0.43205	4.69E-03	0.00E+00	0.00E+00	0.00E+00	4.6919E-03
477240.95	3744251.15	0.44312	4.81E-03	0.00E+00	0.00E+00	0.00E+00	4.8121E-03
477259.01	3744251.15	0.4542	4.93E-03	0.00E+00	0.00E+00	0.00E+00	4.9324E-03
477277.07	3744251.15	0.4653	5.05E-03	0.00E+00	0.00E+00	0.00E+00	5.0530E-03
477295.13	3744251.15	0.47968	5.21E-03	0.00E+00	0.00E+00	0.00E+00	5.2091E-03
477313.19	3744251.15	0.49184	5.34E-03	0.00E+00	0.00E+00	0.00E+00	5.3412E-03
477331.25	3744251.15	0.50449	5.48E-03	0.00E+00	0.00E+00	0.00E+00	5.4785E-03
477349.31	3744251.15	0.5177	5.62E-03	0.00E+00	0.00E+00	0.00E+00	5.6220E-03
477367.37	3744251.15	0.53148	5.77E-03	0.00E+00	0.00E+00	0.00E+00	5.7716E-03
477385.43	3744251.15	0.54588	5.93E-03	0.00E+00	0.00E+00	0.00E+00	5.9280E-03
477403.49	3744251.15	0.56124	6.09E-03	0.00E+00	0.00E+00	0.00E+00	6.0948E-03
477421.55	3744251.15	0.57862	6.28E-03	0.00E+00	0.00E+00	0.00E+00	6.2836E-03
477060.35	3744259.68	0.35765	3.88E-03	0.00E+00	0.00E+00	0.00E+00	3.8839E-03
477078.41	3744259.68	0.36593	3.97E-03	0.00E+00	0.00E+00	0.00E+00	3.9738E-03
477096.47	3744259.68	0.37469	4.07E-03	0.00E+00	0.00E+00	0.00E+00	4.0690E-03
477114.53	3744259.68	0.38326	4.16E-03	0.00E+00	0.00E+00	0.00E+00	4.1620E-03
477132.59	3744259.68	0.39192	4.26E-03	0.00E+00	0.00E+00	0.00E+00	4.2561E-03
477150.65	3744259.68	0.4008	4.35E-03	0.00E+00	0.00E+00	0.00E+00	4.3525E-03
477168.71	3744259.68	0.40991	4.45E-03	0.00E+00	0.00E+00	0.00E+00	4.4514E-03
477186.77	3744259.68	0.41928	4.55E-03	0.00E+00	0.00E+00	0.00E+00	4.5532E-03
477204.83	3744259.68	0.42905	4.66E-03	0.00E+00	0.00E+00	0.00E+00	4.6593E-03
477222.89	3744259.68	0.43932	4.77E-03	0.00E+00	0.00E+00	0.00E+00	4.7708E-03
477240.95	3744259.68	0.45083	4.90E-03	0.00E+00	0.00E+00	0.00E+00	4.8958E-03
477259.01	3744259.68	0.46436	5.04E-03	0.00E+00	0.00E+00	0.00E+00	5.0427E-03
477277.07	3744259.68	0.47603	5.17E-03	0.00E+00	0.00E+00	0.00E+00	5.1695E-03
477295.13	3744259.68	0.48815	5.30E-03	0.00E+00	0.00E+00	0.00E+00	5.3011E-03
477313.19	3744259.68	0.50074	5.44E-03	0.00E+00	0.00E+00	0.00E+00	5.4378E-03
477331.25	3744259.68	0.51386	5.58E-03	0.00E+00	0.00E+00	0.00E+00	5.5803E-03
477349.31	3744259.68	0.52753	5.73E-03	0.00E+00	0.00E+00	0.00E+00	5.7287E-03
477367.37	3744259.68	0.54182	5.88E-03	0.00E+00	0.00E+00	0.00E+00	5.8839E-03
477385.43	3744259.68	0.55689	6.05E-03	0.00E+00	0.00E+00	0.00E+00	6.0476E-03
477403.49	3744259.68	0.57292	6.22E-03	0.00E+00	0.00E+00	0.00E+00	6.2217E-03
477421.55	3744259.68	0.5908	6.42E-03	0.00E+00	0.00E+00	0.00E+00	6.4158E-03
477060.35	3744268.21	0.36194	3.93E-03	0.00E+00	0.00E+00	0.00E+00	3.9305E-03
477078.41	3744268.21	0.37054	4.02E-03	0.00E+00	0.00E+00	0.00E+00	4.0239E-03
477096.47	3744268.21	0.37945	4.12E-03	0.00E+00	0.00E+00	0.00E+00	4.1207E-03
477114.53	3744268.21	0.38831	4.22E-03	0.00E+00	0.00E+00	0.00E+00	4.2169E-03
477132.59	3744268.21	0.3973	4.31E-03	0.00E+00	0.00E+00	0.00E+00	4.3145E-03
477150.65	3744268.21	0.40652	4.41E-03	0.00E+00	0.00E+00	0.00E+00	4.4146E-03
477168.71	3744268.21	0.41598	4.52E-03	0.00E+00	0.00E+00	0.00E+00	4.5174E-03
477186.77	3744268.21	0.4257	4.62E-03	0.00E+00	0.00E+00	0.00E+00	4.6229E-03
477204.83	3744268.21	0.43609	4.74E-03	0.00E+00	0.00E+00	0.00E+00	4.7357E-03
477222.89	3744268.21	0.44699	4.85E-03	0.00E+00	0.00E+00	0.00E+00	4.8541E-03
477240.95	3744268.21	0.45855	4.98E-03	0.00E+00	0.00E+00	0.00E+00	4.9797E-03
477259.01	3744268.21	0.47218	5.13E-03	0.00E+00	0.00E+00	0.00E+00	5.1277E-03
477277.07	3744268.21	0.48427	5.26E-03	0.00E+00	0.00E+00	0.00E+00	5.2590E-03
477295.13	3744268.21	0.49683	5.40E-03	0.00E+00	0.00E+00	0.00E+00	5.3954E-03
477313.19	3744268.21	0.50988	5.54E-03	0.00E+00	0.00E+00	0.00E+00	5.5371E-03
477331.25	3744268.21	0.52348	5.68E-03	0.00E+00	0.00E+00	0.00E+00	5.6848E-03
477349.31	3744268.21	0.53766	5.84E-03	0.00E+00	0.00E+00	0.00E+00	5.8388E-03
477367.37	3744268.21	0.55246	6.00E-03	0.00E+00	0.00E+00	0.00E+00	5.9995E-03
477385.43	3744268.21	0.56846	6.17E-03	0.00E+00	0.00E+00	0.00E+00	6.1732E-03
477403.49	3744268.21	0.58539	6.36E-03	0.00E+00	0.00E+00	0.00E+00	6.3571E-03
477421.55	3744268.21	0.60346	6.55E-03	0.00E+00	0.00E+00	0.00E+00	6.5533E-03
477060.35	3744276.74	0.36621	3.98E-03	0.00E+00	0.00E+00	0.00E+00	3.9769E-03
477078.41	3744276.74	0.37515	4.07E-03	0.00E+00	0.00E+00	0.00E+00	4.0740E-03
477096.47	3744276.74	0.38422	4.17E-03	0.00E+00	0.00E+00	0.00E+00	4.1725E-03
477114.53	3744276.74	0.39339	4.27E-03	0.00E+00	0.00E+00	0.00E+00	4.2720E-03
477132.59	3744276.74	0.40273	4.37E-03	0.00E+00	0.00E+00	0.00E+00	4.3735E-03
477150.65	3744276.74	0.4123	4.48E-03	0.00E+00	0.00E+00	0.00E+00	4.4774E-03
477168.71	3744276.74	0.42213	4.58E-03	0.00E+00	0.00E+00	0.00E+00	4.5841E-03
477186.77	3744276.74	0.43223	4.69E-03	0.00E+00	0.00E+00	0.00E+00	4.6938E-03
477204.83	3744276.74	0.44326	4.81E-03	0.00E+00	0.00E+00	0.00E+00	4.8136E-03
477222.89	3744276.74	0.45483	4.94E-03	0.00E+00	0.00E+00	0.00E+00	4.9393E-03
477240.95	3744276.74	0.46646	5.07E-03	0.00E+00	0.00E+00	0.00E+00	5.0656E-03
477259.01	3744276.74	0.48016	5.21E-03	0.00E+00	0.00E+00	0.00E+00	5.2143E-03

477277.07	3744276.74	0.49271	5.35E-03	0.00E+00	0.00E+00	0.00E+00	5.3506E-03
477295.13	3744276.74	0.50579	5.49E-03	0.00E+00	0.00E+00	0.00E+00	5.4927E-03
477313.19	3744276.74	0.51927	5.64E-03	0.00E+00	0.00E+00	0.00E+00	5.6390E-03
477331.25	3744276.74	0.53337	5.79E-03	0.00E+00	0.00E+00	0.00E+00	5.7922E-03
477349.31	3744276.74	0.54807	5.95E-03	0.00E+00	0.00E+00	0.00E+00	5.9518E-03
477367.37	3744276.74	0.56343	6.12E-03	0.00E+00	0.00E+00	0.00E+00	6.1186E-03
477385.43	3744276.74	0.58042	6.30E-03	0.00E+00	0.00E+00	0.00E+00	6.3031E-03
477403.49	3744276.74	0.59829	6.50E-03	0.00E+00	0.00E+00	0.00E+00	6.4972E-03
477421.55	3744276.74	0.61659	6.70E-03	0.00E+00	0.00E+00	0.00E+00	6.6959E-03
477060.35	3744285.27	0.37045	4.02E-03	0.00E+00	0.00E+00	0.00E+00	4.0229E-03
477078.41	3744285.27	0.37973	4.12E-03	0.00E+00	0.00E+00	0.00E+00	4.1237E-03
477096.47	3744285.27	0.38901	4.22E-03	0.00E+00	0.00E+00	0.00E+00	4.2245E-03
477114.53	3744285.27	0.39848	4.33E-03	0.00E+00	0.00E+00	0.00E+00	4.3273E-03
477132.59	3744285.27	0.40819	4.43E-03	0.00E+00	0.00E+00	0.00E+00	4.4328E-03
477150.65	3744285.27	0.41814	4.54E-03	0.00E+00	0.00E+00	0.00E+00	4.5408E-03
477168.71	3744285.27	0.42835	4.65E-03	0.00E+00	0.00E+00	0.00E+00	4.6517E-03
477186.77	3744285.27	0.43884	4.77E-03	0.00E+00	0.00E+00	0.00E+00	4.7656E-03
477204.83	3744285.27	0.45055	4.89E-03	0.00E+00	0.00E+00	0.00E+00	4.8928E-03
477222.89	3744285.27	0.46279	5.03E-03	0.00E+00	0.00E+00	0.00E+00	5.0257E-03
477240.95	3744285.27	0.47451	5.15E-03	0.00E+00	0.00E+00	0.00E+00	5.1530E-03
477259.01	3744285.27	0.48832	5.30E-03	0.00E+00	0.00E+00	0.00E+00	5.3029E-03
477277.07	3744285.27	0.50134	5.44E-03	0.00E+00	0.00E+00	0.00E+00	5.4443E-03
477295.13	3744285.27	0.51485	5.59E-03	0.00E+00	0.00E+00	0.00E+00	5.5910E-03
477313.19	3744285.27	0.5289	5.74E-03	0.00E+00	0.00E+00	0.00E+00	5.7436E-03
477331.25	3744285.27	0.54353	5.90E-03	0.00E+00	0.00E+00	0.00E+00	5.9025E-03
477349.31	3744285.27	0.55879	6.07E-03	0.00E+00	0.00E+00	0.00E+00	6.0682E-03
477367.37	3744285.27	0.57474	6.24E-03	0.00E+00	0.00E+00	0.00E+00	6.2414E-03
477385.43	3744285.27	0.59274	6.44E-03	0.00E+00	0.00E+00	0.00E+00	6.4369E-03
477403.49	3744285.27	0.61162	6.64E-03	0.00E+00	0.00E+00	0.00E+00	6.6419E-03
477421.55	3744285.27	0.63017	6.84E-03	0.00E+00	0.00E+00	0.00E+00	6.8434E-03
477060.35	3744293.80	0.37454	4.07E-03	0.00E+00	0.00E+00	0.00E+00	4.0673E-03
477078.41	3744293.80	0.38415	4.17E-03	0.00E+00	0.00E+00	0.00E+00	4.1717E-03
477096.47	3744293.80	0.39375	4.28E-03	0.00E+00	0.00E+00	0.00E+00	4.2760E-03
477114.53	3744293.80	0.4036	4.38E-03	0.00E+00	0.00E+00	0.00E+00	4.3829E-03
477132.59	3744293.80	0.41368	4.49E-03	0.00E+00	0.00E+00	0.00E+00	4.4924E-03
477150.65	3744293.80	0.42402	4.60E-03	0.00E+00	0.00E+00	0.00E+00	4.6047E-03
477168.71	3744293.80	0.43474	4.72E-03	0.00E+00	0.00E+00	0.00E+00	4.7211E-03
477186.77	3744293.80	0.44594	4.84E-03	0.00E+00	0.00E+00	0.00E+00	4.8427E-03
477204.83	3744293.80	0.45796	4.97E-03	0.00E+00	0.00E+00	0.00E+00	4.9732E-03
477222.89	3744293.80	0.471	5.11E-03	0.00E+00	0.00E+00	0.00E+00	5.1149E-03
477240.95	3744293.80	0.4836	5.25E-03	0.00E+00	0.00E+00	0.00E+00	5.2517E-03
477259.01	3744293.80	0.49665	5.39E-03	0.00E+00	0.00E+00	0.00E+00	5.3934E-03
477277.07	3744293.80	0.51017	5.54E-03	0.00E+00	0.00E+00	0.00E+00	5.5402E-03
477295.13	3744293.80	0.5242	5.69E-03	0.00E+00	0.00E+00	0.00E+00	5.6926E-03
477313.19	3744293.80	0.53879	5.85E-03	0.00E+00	0.00E+00	0.00E+00	5.8510E-03
477331.25	3744293.80	0.55398	6.02E-03	0.00E+00	0.00E+00	0.00E+00	6.0160E-03
477349.31	3744293.80	0.57002	6.19E-03	0.00E+00	0.00E+00	0.00E+00	6.1902E-03
477367.37	3744293.80	0.58698	6.37E-03	0.00E+00	0.00E+00	0.00E+00	6.3743E-03
477385.43	3744293.80	0.60546	6.58E-03	0.00E+00	0.00E+00	0.00E+00	6.5750E-03
477403.49	3744293.80	0.62478	6.78E-03	0.00E+00	0.00E+00	0.00E+00	6.7848E-03
477421.55	3744293.80	0.64399	6.99E-03	0.00E+00	0.00E+00	0.00E+00	6.9935E-03
477060.35	3744302.33	0.37857	4.11E-03	0.00E+00	0.00E+00	0.00E+00	4.1111E-03
477078.41	3744302.33	0.38852	4.22E-03	0.00E+00	0.00E+00	0.00E+00	4.2192E-03
477096.47	3744302.33	0.39849	4.33E-03	0.00E+00	0.00E+00	0.00E+00	4.3274E-03
477114.53	3744302.33	0.40872	4.44E-03	0.00E+00	0.00E+00	0.00E+00	4.4385E-03
477132.59	3744302.33	0.4192	4.55E-03	0.00E+00	0.00E+00	0.00E+00	4.5523E-03
477150.65	3744302.33	0.42995	4.67E-03	0.00E+00	0.00E+00	0.00E+00	4.6691E-03
477168.71	3744302.33	0.44123	4.79E-03	0.00E+00	0.00E+00	0.00E+00	4.7916E-03
477186.77	3744302.33	0.45314	4.92E-03	0.00E+00	0.00E+00	0.00E+00	4.9209E-03
477204.83	3744302.33	0.46545	5.05E-03	0.00E+00	0.00E+00	0.00E+00	5.0546E-03
477222.89	3744302.33	0.4785	5.20E-03	0.00E+00	0.00E+00	0.00E+00	5.1963E-03
477240.95	3744302.33	0.49159	5.34E-03	0.00E+00	0.00E+00	0.00E+00	5.3385E-03
477259.01	3744302.33	0.50514	5.49E-03	0.00E+00	0.00E+00	0.00E+00	5.4856E-03
477277.07	3744302.33	0.5192	5.64E-03	0.00E+00	0.00E+00	0.00E+00	5.6383E-03
477295.13	3744302.33	0.53378	5.80E-03	0.00E+00	0.00E+00	0.00E+00	5.7966E-03
477313.19	3744302.33	0.54894	5.96E-03	0.00E+00	0.00E+00	0.00E+00	5.9613E-03

477331.25	3744302.33	0.56472	6.13E-03	0.00E+00	0.00E+00	0.00E+00	6.1326E-03
477349.31	3744302.33	0.58161	6.32E-03	0.00E+00	0.00E+00	0.00E+00	6.3160E-03
477367.37	3744302.33	0.59969	6.51E-03	0.00E+00	0.00E+00	0.00E+00	6.5124E-03
477385.43	3744302.33	0.6186	6.72E-03	0.00E+00	0.00E+00	0.00E+00	6.7177E-03
477403.49	3744302.33	0.63827	6.93E-03	0.00E+00	0.00E+00	0.00E+00	6.9313E-03
477421.55	3744302.33	0.65826	7.15E-03	0.00E+00	0.00E+00	0.00E+00	7.1484E-03
477060.35	3744310.86	0.38258	4.15E-03	0.00E+00	0.00E+00	0.00E+00	4.1547E-03
477078.41	3744310.86	0.39287	4.27E-03	0.00E+00	0.00E+00	0.00E+00	4.2664E-03
477096.47	3744310.86	0.40322	4.38E-03	0.00E+00	0.00E+00	0.00E+00	4.3788E-03
477114.53	3744310.86	0.41383	4.49E-03	0.00E+00	0.00E+00	0.00E+00	4.4940E-03
477132.59	3744310.86	0.42473	4.61E-03	0.00E+00	0.00E+00	0.00E+00	4.6124E-03
477150.65	3744310.86	0.43591	4.73E-03	0.00E+00	0.00E+00	0.00E+00	4.7338E-03
477168.71	3744310.86	0.44775	4.86E-03	0.00E+00	0.00E+00	0.00E+00	4.8624E-03
477186.77	3744310.86	0.46044	5.00E-03	0.00E+00	0.00E+00	0.00E+00	5.0002E-03
477204.83	3744310.86	0.47304	5.14E-03	0.00E+00	0.00E+00	0.00E+00	5.1370E-03
477222.89	3744310.86	0.48611	5.28E-03	0.00E+00	0.00E+00	0.00E+00	5.2789E-03
477240.95	3744310.86	0.49973	5.43E-03	0.00E+00	0.00E+00	0.00E+00	5.4269E-03
477259.01	3744310.86	0.51382	5.58E-03	0.00E+00	0.00E+00	0.00E+00	5.5799E-03
477277.07	3744310.86	0.52842	5.74E-03	0.00E+00	0.00E+00	0.00E+00	5.7384E-03
477295.13	3744310.86	0.54358	5.90E-03	0.00E+00	0.00E+00	0.00E+00	5.9030E-03
477313.19	3744310.86	0.55934	6.07E-03	0.00E+00	0.00E+00	0.00E+00	6.0742E-03
477331.25	3744310.86	0.57575	6.25E-03	0.00E+00	0.00E+00	0.00E+00	6.2524E-03
477349.31	3744310.86	0.59354	6.45E-03	0.00E+00	0.00E+00	0.00E+00	6.4456E-03
477367.37	3744310.86	0.61282	6.65E-03	0.00E+00	0.00E+00	0.00E+00	6.6550E-03
477385.43	3744310.86	0.63214	6.86E-03	0.00E+00	0.00E+00	0.00E+00	6.8648E-03
477403.49	3744310.86	0.65222	7.08E-03	0.00E+00	0.00E+00	0.00E+00	7.0828E-03
477421.55	3744310.86	0.67302	7.31E-03	0.00E+00	0.00E+00	0.00E+00	7.3087E-03
477060.35	3744319.39	0.38656	4.20E-03	0.00E+00	0.00E+00	0.00E+00	4.1979E-03
477078.41	3744319.39	0.39719	4.31E-03	0.00E+00	0.00E+00	0.00E+00	4.3133E-03
477096.47	3744319.39	0.40792	4.43E-03	0.00E+00	0.00E+00	0.00E+00	4.4298E-03
477114.53	3744319.39	0.41894	4.55E-03	0.00E+00	0.00E+00	0.00E+00	4.5495E-03
477132.59	3744319.39	0.43027	4.67E-03	0.00E+00	0.00E+00	0.00E+00	4.6725E-03
477150.65	3744319.39	0.44198	4.80E-03	0.00E+00	0.00E+00	0.00E+00	4.7997E-03
477168.71	3744319.39	0.45438	4.93E-03	0.00E+00	0.00E+00	0.00E+00	4.9344E-03
477186.77	3744319.39	0.46763	5.08E-03	0.00E+00	0.00E+00	0.00E+00	5.0783E-03
477204.83	3744319.39	0.48015	5.21E-03	0.00E+00	0.00E+00	0.00E+00	5.2142E-03
477222.89	3744319.39	0.49384	5.36E-03	0.00E+00	0.00E+00	0.00E+00	5.3629E-03
477240.95	3744319.39	0.508	5.52E-03	0.00E+00	0.00E+00	0.00E+00	5.5167E-03
477259.01	3744319.39	0.52266	5.68E-03	0.00E+00	0.00E+00	0.00E+00	5.6759E-03
477277.07	3744319.39	0.53785	5.84E-03	0.00E+00	0.00E+00	0.00E+00	5.8408E-03
477295.13	3744319.39	0.55361	6.01E-03	0.00E+00	0.00E+00	0.00E+00	6.0120E-03
477313.19	3744319.39	0.57003	6.19E-03	0.00E+00	0.00E+00	0.00E+00	6.1903E-03
477331.25	3744319.39	0.58728	6.38E-03	0.00E+00	0.00E+00	0.00E+00	6.3776E-03
477349.31	3744319.39	0.60592	6.58E-03	0.00E+00	0.00E+00	0.00E+00	6.5800E-03
477367.37	3744319.39	0.62613	6.80E-03	0.00E+00	0.00E+00	0.00E+00	6.7995E-03
477385.43	3744319.39	0.646	7.02E-03	0.00E+00	0.00E+00	0.00E+00	7.0153E-03
477403.49	3744319.39	0.66663	7.24E-03	0.00E+00	0.00E+00	0.00E+00	7.2393E-03
477421.55	3744319.39	0.68829	7.47E-03	0.00E+00	0.00E+00	0.00E+00	7.4745E-03
477060.35	3744327.92	0.39052	4.24E-03	0.00E+00	0.00E+00	0.00E+00	4.2409E-03
477078.41	3744327.92	0.40146	4.36E-03	0.00E+00	0.00E+00	0.00E+00	4.3597E-03
477096.47	3744327.92	0.41259	4.48E-03	0.00E+00	0.00E+00	0.00E+00	4.4805E-03
477114.53	3744327.92	0.42403	4.60E-03	0.00E+00	0.00E+00	0.00E+00	4.6048E-03
477132.59	3744327.92	0.43584	4.73E-03	0.00E+00	0.00E+00	0.00E+00	4.7330E-03
477150.65	3744327.92	0.44823	4.87E-03	0.00E+00	0.00E+00	0.00E+00	4.8676E-03
477168.71	3744327.92	0.46115	5.01E-03	0.00E+00	0.00E+00	0.00E+00	5.0079E-03
477186.77	3744327.92	0.47465	5.15E-03	0.00E+00	0.00E+00	0.00E+00	5.1545E-03
477204.83	3744327.92	0.48744	5.29E-03	0.00E+00	0.00E+00	0.00E+00	5.2934E-03
477222.89	3744327.92	0.50168	5.45E-03	0.00E+00	0.00E+00	0.00E+00	5.4480E-03
477240.95	3744327.92	0.5164	5.61E-03	0.00E+00	0.00E+00	0.00E+00	5.6079E-03
477259.01	3744327.92	0.53165	5.77E-03	0.00E+00	0.00E+00	0.00E+00	5.7735E-03
477277.07	3744327.92	0.54746	5.95E-03	0.00E+00	0.00E+00	0.00E+00	5.9452E-03
477295.13	3744327.92	0.56388	6.12E-03	0.00E+00	0.00E+00	0.00E+00	6.1235E-03
477313.19	3744327.92	0.58104	6.31E-03	0.00E+00	0.00E+00	0.00E+00	6.3098E-03
477331.25	3744327.92	0.59943	6.51E-03	0.00E+00	0.00E+00	0.00E+00	6.5096E-03
477349.31	3744327.92	0.61883	6.72E-03	0.00E+00	0.00E+00	0.00E+00	6.7202E-03
477367.37	3744327.92	0.6394	6.94E-03	0.00E+00	0.00E+00	0.00E+00	6.9436E-03

477385.43	3744327.92	0.66004	7.17E-03	0.00E+00	0.00E+00	0.00E+00	7.1677E-03
477403.49	3744327.92	0.68152	7.40E-03	0.00E+00	0.00E+00	0.00E+00	7.4010E-03
477421.55	3744327.92	0.70409	7.65E-03	0.00E+00	0.00E+00	0.00E+00	7.6461E-03
477060.35	3744336.45	0.39442	4.28E-03	0.00E+00	0.00E+00	0.00E+00	4.2832E-03
477078.41	3744336.45	0.40568	4.41E-03	0.00E+00	0.00E+00	0.00E+00	4.4055E-03
477096.47	3744336.45	0.41721	4.53E-03	0.00E+00	0.00E+00	0.00E+00	4.5307E-03
477114.53	3744336.45	0.42909	4.66E-03	0.00E+00	0.00E+00	0.00E+00	4.6597E-03
477132.59	3744336.45	0.44138	4.79E-03	0.00E+00	0.00E+00	0.00E+00	4.7932E-03
477150.65	3744336.45	0.45447	4.94E-03	0.00E+00	0.00E+00	0.00E+00	4.9353E-03
477168.71	3744336.45	0.46793	5.08E-03	0.00E+00	0.00E+00	0.00E+00	5.0815E-03
477186.77	3744336.45	0.48172	5.23E-03	0.00E+00	0.00E+00	0.00E+00	5.2313E-03
477204.83	3744336.45	0.49479	5.37E-03	0.00E+00	0.00E+00	0.00E+00	5.3732E-03
477222.89	3744336.45	0.50961	5.53E-03	0.00E+00	0.00E+00	0.00E+00	5.5341E-03
477240.95	3744336.45	0.52493	5.70E-03	0.00E+00	0.00E+00	0.00E+00	5.7005E-03
477259.01	3744336.45	0.54081	5.87E-03	0.00E+00	0.00E+00	0.00E+00	5.8730E-03
477277.07	3744336.45	0.55727	6.05E-03	0.00E+00	0.00E+00	0.00E+00	6.0517E-03
477295.13	3744336.45	0.57437	6.24E-03	0.00E+00	0.00E+00	0.00E+00	6.2374E-03
477313.19	3744336.45	0.59232	6.43E-03	0.00E+00	0.00E+00	0.00E+00	6.4323E-03
477331.25	3744336.45	0.61191	6.65E-03	0.00E+00	0.00E+00	0.00E+00	6.6451E-03
477349.31	3744336.45	0.63216	6.86E-03	0.00E+00	0.00E+00	0.00E+00	6.8650E-03
477367.37	3744336.45	0.65308	7.09E-03	0.00E+00	0.00E+00	0.00E+00	7.0922E-03
477385.43	3744336.45	0.67452	7.32E-03	0.00E+00	0.00E+00	0.00E+00	7.3250E-03
477403.49	3744336.45	0.69691	7.57E-03	0.00E+00	0.00E+00	0.00E+00	7.5681E-03
477421.55	3744336.45	0.72045	7.82E-03	0.00E+00	0.00E+00	0.00E+00	7.8238E-03
477060.35	3744344.98	0.39824	4.32E-03	0.00E+00	0.00E+00	0.00E+00	4.3247E-03
477078.41	3744344.98	0.40984	4.45E-03	0.00E+00	0.00E+00	0.00E+00	4.4507E-03
477096.47	3744344.98	0.42179	4.58E-03	0.00E+00	0.00E+00	0.00E+00	4.5805E-03
477114.53	3744344.98	0.43411	4.71E-03	0.00E+00	0.00E+00	0.00E+00	4.7142E-03
477132.59	3744344.98	0.4469	4.85E-03	0.00E+00	0.00E+00	0.00E+00	4.8531E-03
477150.65	3744344.98	0.4607	5.00E-03	0.00E+00	0.00E+00	0.00E+00	5.0030E-03
477168.71	3744344.98	0.47471	5.16E-03	0.00E+00	0.00E+00	0.00E+00	5.1551E-03
477186.77	3744344.98	0.48732	5.29E-03	0.00E+00	0.00E+00	0.00E+00	5.2921E-03
477204.83	3744344.98	0.50221	5.45E-03	0.00E+00	0.00E+00	0.00E+00	5.4538E-03
477222.89	3744344.98	0.51762	5.62E-03	0.00E+00	0.00E+00	0.00E+00	5.6211E-03
477240.95	3744344.98	0.53358	5.79E-03	0.00E+00	0.00E+00	0.00E+00	5.7944E-03
477259.01	3744344.98	0.55012	5.97E-03	0.00E+00	0.00E+00	0.00E+00	5.9741E-03
477277.07	3744344.98	0.56727	6.16E-03	0.00E+00	0.00E+00	0.00E+00	6.1603E-03
477295.13	3744344.98	0.58509	6.35E-03	0.00E+00	0.00E+00	0.00E+00	6.3538E-03
477313.19	3744344.98	0.60389	6.56E-03	0.00E+00	0.00E+00	0.00E+00	6.5580E-03
477331.25	3744344.98	0.62474	6.78E-03	0.00E+00	0.00E+00	0.00E+00	6.7844E-03
477349.31	3744344.98	0.64585	7.01E-03	0.00E+00	0.00E+00	0.00E+00	7.0137E-03
477367.37	3744344.98	0.6672	7.25E-03	0.00E+00	0.00E+00	0.00E+00	7.2455E-03
477385.43	3744344.98	0.68946	7.49E-03	0.00E+00	0.00E+00	0.00E+00	7.4872E-03
477403.49	3744344.98	0.71282	7.74E-03	0.00E+00	0.00E+00	0.00E+00	7.7409E-03
477421.55	3744344.98	0.73738	8.01E-03	0.00E+00	0.00E+00	0.00E+00	8.0076E-03
477060.35	3744353.51	0.40194	4.36E-03	0.00E+00	0.00E+00	0.00E+00	4.3649E-03
477078.41	3744353.51	0.41393	4.50E-03	0.00E+00	0.00E+00	0.00E+00	4.4951E-03
477096.47	3744353.51	0.4263	4.63E-03	0.00E+00	0.00E+00	0.00E+00	4.6294E-03
477114.53	3744353.51	0.43919	4.77E-03	0.00E+00	0.00E+00	0.00E+00	4.7694E-03
477132.59	3744353.51	0.45258	4.91E-03	0.00E+00	0.00E+00	0.00E+00	4.9148E-03
477150.65	3744353.51	0.46678	5.07E-03	0.00E+00	0.00E+00	0.00E+00	5.0690E-03
477168.71	3744353.51	0.47924	5.20E-03	0.00E+00	0.00E+00	0.00E+00	5.2043E-03
477186.77	3744353.51	0.49419	5.37E-03	0.00E+00	0.00E+00	0.00E+00	5.3667E-03
477204.83	3744353.51	0.50968	5.53E-03	0.00E+00	0.00E+00	0.00E+00	5.5349E-03
477222.89	3744353.51	0.52572	5.71E-03	0.00E+00	0.00E+00	0.00E+00	5.7091E-03
477240.95	3744353.51	0.54234	5.89E-03	0.00E+00	0.00E+00	0.00E+00	5.8896E-03
477259.01	3744353.51	0.55957	6.08E-03	0.00E+00	0.00E+00	0.00E+00	6.0767E-03
477277.07	3744353.51	0.57745	6.27E-03	0.00E+00	0.00E+00	0.00E+00	6.2709E-03
477295.13	3744353.51	0.59603	6.47E-03	0.00E+00	0.00E+00	0.00E+00	6.4726E-03
477313.19	3744353.51	0.61563	6.69E-03	0.00E+00	0.00E+00	0.00E+00	6.6855E-03
477331.25	3744353.51	0.63743	6.92E-03	0.00E+00	0.00E+00	0.00E+00	6.9222E-03
477349.31	3744353.51	0.65946	7.16E-03	0.00E+00	0.00E+00	0.00E+00	7.1615E-03
477367.37	3744353.51	0.68164	7.40E-03	0.00E+00	0.00E+00	0.00E+00	7.4023E-03
477385.43	3744353.51	0.70488	7.65E-03	0.00E+00	0.00E+00	0.00E+00	7.6547E-03
477403.49	3744353.51	0.72927	7.92E-03	0.00E+00	0.00E+00	0.00E+00	7.9196E-03
477421.55	3744353.51	0.75491	8.20E-03	0.00E+00	0.00E+00	0.00E+00	8.1980E-03

477060.35	3744362.04	0.40555	4.40E-03	0.00E+00	0.00E+00	0.00E+00	4.4041E-03
477078.41	3744362.04	0.41794	4.54E-03	0.00E+00	0.00E+00	0.00E+00	4.5386E-03
477096.47	3744362.04	0.43075	4.68E-03	0.00E+00	0.00E+00	0.00E+00	4.6778E-03
477114.53	3744362.04	0.44422	4.82E-03	0.00E+00	0.00E+00	0.00E+00	4.8240E-03
477132.59	3744362.04	0.45826	4.98E-03	0.00E+00	0.00E+00	0.00E+00	4.9765E-03
477150.65	3744362.04	0.47281	5.13E-03	0.00E+00	0.00E+00	0.00E+00	5.1345E-03
477168.71	3744362.04	0.48555	5.27E-03	0.00E+00	0.00E+00	0.00E+00	5.2729E-03
477186.77	3744362.04	0.50109	5.44E-03	0.00E+00	0.00E+00	0.00E+00	5.4416E-03
477204.83	3744362.04	0.51719	5.62E-03	0.00E+00	0.00E+00	0.00E+00	5.6165E-03
477222.89	3744362.04	0.53389	5.80E-03	0.00E+00	0.00E+00	0.00E+00	5.7978E-03
477240.95	3744362.04	0.5512	5.99E-03	0.00E+00	0.00E+00	0.00E+00	5.9858E-03
477259.01	3744362.04	0.56916	6.18E-03	0.00E+00	0.00E+00	0.00E+00	6.1808E-03
477277.07	3744362.04	0.58781	6.38E-03	0.00E+00	0.00E+00	0.00E+00	6.3834E-03
477295.13	3744362.04	0.60719	6.59E-03	0.00E+00	0.00E+00	0.00E+00	6.5938E-03
477313.19	3744362.04	0.62764	6.82E-03	0.00E+00	0.00E+00	0.00E+00	6.8159E-03
477331.25	3744362.04	0.65037	7.06E-03	0.00E+00	0.00E+00	0.00E+00	7.0627E-03
477349.31	3744362.04	0.67335	7.31E-03	0.00E+00	0.00E+00	0.00E+00	7.3123E-03
477367.37	3744362.04	0.69652	7.56E-03	0.00E+00	0.00E+00	0.00E+00	7.5639E-03
477385.43	3744362.04	0.72078	7.83E-03	0.00E+00	0.00E+00	0.00E+00	7.8274E-03
477403.49	3744362.04	0.74626	8.10E-03	0.00E+00	0.00E+00	0.00E+00	8.1041E-03
477421.55	3744362.04	0.77306	8.40E-03	0.00E+00	0.00E+00	0.00E+00	8.3951E-03
477060.35	3744370.57	0.40907	4.44E-03	0.00E+00	0.00E+00	0.00E+00	4.4423E-03
477078.41	3744370.57	0.42186	4.58E-03	0.00E+00	0.00E+00	0.00E+00	4.5812E-03
477096.47	3744370.57	0.43511	4.73E-03	0.00E+00	0.00E+00	0.00E+00	4.7251E-03
477114.53	3744370.57	0.44918	4.88E-03	0.00E+00	0.00E+00	0.00E+00	4.8779E-03
477132.59	3744370.57	0.46386	5.04E-03	0.00E+00	0.00E+00	0.00E+00	5.0373E-03
477150.65	3744370.57	0.47879	5.20E-03	0.00E+00	0.00E+00	0.00E+00	5.1995E-03
477168.71	3744370.57	0.49185	5.34E-03	0.00E+00	0.00E+00	0.00E+00	5.3413E-03
477186.77	3744370.57	0.50799	5.52E-03	0.00E+00	0.00E+00	0.00E+00	5.5166E-03
477204.83	3744370.57	0.52474	5.70E-03	0.00E+00	0.00E+00	0.00E+00	5.6984E-03
477222.89	3744370.57	0.54212	5.89E-03	0.00E+00	0.00E+00	0.00E+00	5.8872E-03
477240.95	3744370.57	0.56015	6.08E-03	0.00E+00	0.00E+00	0.00E+00	6.0830E-03
477259.01	3744370.57	0.57887	6.29E-03	0.00E+00	0.00E+00	0.00E+00	6.2863E-03
477277.07	3744370.57	0.59833	6.50E-03	0.00E+00	0.00E+00	0.00E+00	6.4976E-03
477295.13	3744370.57	0.61856	6.72E-03	0.00E+00	0.00E+00	0.00E+00	6.7173E-03
477313.19	3744370.57	0.63992	6.95E-03	0.00E+00	0.00E+00	0.00E+00	6.9493E-03
477331.25	3744370.57	0.66362	7.21E-03	0.00E+00	0.00E+00	0.00E+00	7.2066E-03
477349.31	3744370.57	0.68761	7.47E-03	0.00E+00	0.00E+00	0.00E+00	7.4671E-03
477367.37	3744370.57	0.71182	7.73E-03	0.00E+00	0.00E+00	0.00E+00	7.7301E-03
477385.43	3744370.57	0.73719	8.01E-03	0.00E+00	0.00E+00	0.00E+00	8.0056E-03
477403.49	3744370.57	0.76382	8.29E-03	0.00E+00	0.00E+00	0.00E+00	8.2948E-03
477421.55	3744370.57	0.79185	8.60E-03	0.00E+00	0.00E+00	0.00E+00	8.5991E-03
477060.35	3744379.10	0.4125	4.48E-03	0.00E+00	0.00E+00	0.00E+00	4.4796E-03
477078.41	3744379.10	0.42571	4.62E-03	0.00E+00	0.00E+00	0.00E+00	4.6230E-03
477096.47	3744379.10	0.43946	4.77E-03	0.00E+00	0.00E+00	0.00E+00	4.7723E-03
477114.53	3744379.10	0.45405	4.93E-03	0.00E+00	0.00E+00	0.00E+00	4.9308E-03
477132.59	3744379.10	0.46646	5.07E-03	0.00E+00	0.00E+00	0.00E+00	5.0656E-03
477150.65	3744379.10	0.48198	5.23E-03	0.00E+00	0.00E+00	0.00E+00	5.2341E-03
477168.71	3744379.10	0.49811	5.41E-03	0.00E+00	0.00E+00	0.00E+00	5.4093E-03
477186.77	3744379.10	0.51488	5.59E-03	0.00E+00	0.00E+00	0.00E+00	5.5914E-03
477204.83	3744379.10	0.5323	5.78E-03	0.00E+00	0.00E+00	0.00E+00	5.7805E-03
477222.89	3744379.10	0.55039	5.98E-03	0.00E+00	0.00E+00	0.00E+00	5.9770E-03
477240.95	3744379.10	0.56918	6.18E-03	0.00E+00	0.00E+00	0.00E+00	6.1810E-03
477259.01	3744379.10	0.58871	6.39E-03	0.00E+00	0.00E+00	0.00E+00	6.3931E-03
477277.07	3744379.10	0.60902	6.61E-03	0.00E+00	0.00E+00	0.00E+00	6.6137E-03
477295.13	3744379.10	0.63026	6.84E-03	0.00E+00	0.00E+00	0.00E+00	6.8444E-03
477313.19	3744379.10	0.65268	7.09E-03	0.00E+00	0.00E+00	0.00E+00	7.0878E-03
477331.25	3744379.10	0.67727	7.35E-03	0.00E+00	0.00E+00	0.00E+00	7.3549E-03
477349.31	3744379.10	0.70224	7.63E-03	0.00E+00	0.00E+00	0.00E+00	7.6260E-03
477367.37	3744379.10	0.72756	7.90E-03	0.00E+00	0.00E+00	0.00E+00	7.9010E-03
477385.43	3744379.10	0.7541	8.19E-03	0.00E+00	0.00E+00	0.00E+00	8.1892E-03
477403.49	3744379.10	0.78201	8.49E-03	0.00E+00	0.00E+00	0.00E+00	8.4923E-03
477421.55	3744379.10	0.81161	8.81E-03	0.00E+00	0.00E+00	0.00E+00	8.8137E-03

CONCUNIT ug/m^3

DEPUNIT g/m^2

AERMOD Output (Unit Emissions)

AERMOD Output - Unit Emissions

* AERMOD (21112): C:\Users\FCS\OneDrive - ADEC Solutions USA,Inc\Desktop\41 15.0038\RE 6/17/2022
* AERMET (16216): 12:08:01 PM
* MODELING OPTIONS USED: Reg DFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF ANNUAL VALUES AVERAGED ACROSS 5 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 908 RECEPTORS.

* FORMA	T: (3(1X,F13.5)	,3(1X,F8.2),2X,	A6,2X,A8,	2X,I8.8,	2X,A8)				
* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM YRS	NET ID
* ____________	____________	____________	______	______	______	______	________	________	________
477705.81	3745083.24	7.38737	448.8	448.8	0	ANNUAL	ALL	5	
477681.32	3745107.73	5.83807	449	449	0	ANNUAL	ALL	5	
477714.50	3745130.90	5.20498	448.59	448.59	0	ANNUAL	ALL	5	
477710.83	3745154.80	4.43619	448.98	448.98	0	ANNUAL	ALL	5	
477713.48	3745182.93	3.7533	449	449	0	ANNUAL	ALL	5	
477717.89	3745206.98	3.29182	449	449	0	ANNUAL	ALL	5	
477719.11	3745233.04	2.88163	449	449	0	ANNUAL	ALL	5	
477712.06	3745261.55	2.51623	449	449	0	ANNUAL	ALL	5	
477717.83	3745285.15	2.27041	449	449	0	ANNUAL	ALL	5	
477720.80	3745311.46	2.0374	449	449	0	ANNUAL	ALL	5	
477718.68	3745339.04	1.83276	449	449	0	ANNUAL	ALL	5	
477716.72	3745391.49	1.52619	449	449	0	ANNUAL	ALL	5	
477476.64	3745397.66	1.09407	450	450	0	ANNUAL	ALL	5	
477472.67	3745368.80	1.14924	450	450	0	ANNUAL	ALL	5	
477473.75	3745345.36	1.21002	450	450	0	ANNUAL	ALL	5	
477474.50	3745291.98	1.35988	450	450	0	ANNUAL	ALL	5	
477476.65	3745315.28	1.30119	450	450	0	ANNUAL	ALL	5	
477474.50	3745266.84	1.43745	450	450	0	ANNUAL	ALL	5	
477467.45	3745239.85	1.48616	450	450	0	ANNUAL	ALL	5	
477472.97	3745216.86	1.59837	450	450	0	ANNUAL	ALL	5	
477471.51	3745185.06	1.70597	450	450	0	ANNUAL	ALL	5	
477473.68	3745164.50	1.80529	450	450	0	ANNUAL	ALL	5	
477476.56	3745137.45	1.94859	450	450	0	ANNUAL	ALL	5	
477473.21	3745088.15	2.13263	450	450	0	ANNUAL	ALL	5	
477712.27	3745369.96	1.64138	449	449	0	ANNUAL	ALL	5	
477839.03	3745427.98	1.22716	448	448	0	ANNUAL	ALL	5	
479210.93	3744556.28	0.06892	443	443	0	ANNUAL	ALL	5	
479224.03	3744556.28	0.0678	443	443	0	ANNUAL	ALL	5	
479237.13	3744556.28	0.06671	443	443	0	ANNUAL	ALL	5	
479250.23	3744556.28	0.06565	443	443	0	ANNUAL	ALL	5	
479263.33	3744556.28	0.06463	443	443	0	ANNUAL	ALL	5	
479276.43	3744556.28	0.06362	443	443	0	ANNUAL	ALL	5	
479289.53	3744556.28	0.06265	443	443	0	ANNUAL	ALL	5	
479302.63	3744556.28	0.06169	442.58	442.58	0	ANNUAL	ALL	5	
479315.73	3744556.28	0.06075	442.14	442.14	0	ANNUAL	ALL	5	
479328.83	3744556.28	0.05984	442	442	0	ANNUAL	ALL	5	
479341.93	3744556.28	0.05897	442	442	0	ANNUAL	ALL	5	
479355.03	3744556.28	0.05811	442	442	0	ANNUAL	ALL	5	
479368.13	3744556.28	0.05727	442	442	0	ANNUAL	ALL	5	
479381.23	3744556.28	0.05646	442	442	0	ANNUAL	ALL	5	
479394.33	3744556.28	0.05567	442	442	0	ANNUAL	ALL	5	
479407.43	3744556.28	0.05489	442	442	0	ANNUAL	ALL	5	
479420.53	3744556.28	0.05414	442	442	0	ANNUAL	ALL	5	
479433.63	3744556.28	0.0534	442	442	0	ANNUAL	ALL	5	
479446.73	3744556.28	0.05268	442	442	0	ANNUAL	ALL	5	
479459.83	3744556.28	0.05197	442	442	0	ANNUAL	ALL	5	
479472.93	3744556.28	0.05128	442	442	0	ANNUAL	ALL	5	
479210.93	3744571.39	0.06828	443	443	0	ANNUAL	ALL	5	
479224.03	3744571.39	0.06717	443	443	0	ANNUAL	ALL	5	
479237.13	3744571.39	0.0661	443	443	0	ANNUAL	ALL	5	
479250.23	3744571.39	0.06505	443	443	0	ANNUAL	ALL	5	
479263.33	3744571.39	0.06404	443	443	0	ANNUAL	ALL	5	
479276.43	3744571.39	0.06305	443	443	0	ANNUAL	ALL	5	
479289.53	3744571.39	0.06208	443	443	0	ANNUAL	ALL	5	
479302.63	3744571.39	0.06113	442.58	442.58	0	ANNUAL	ALL	5	

479315.73	3744571.39	0.0602	442.14	442.14	0	ANNUAL	ALL	5
479328.83	3744571.39	0.05931	442	442	0	ANNUAL	ALL	5
479341.93	3744571.39	0.05844	442	442	0	ANNUAL	ALL	5
479355.03	3744571.39	0.0576	442	442	0	ANNUAL	ALL	5
479368.13	3744571.39	0.05677	442	442	0	ANNUAL	ALL	5
479381.23	3744571.39	0.05597	442	442	0	ANNUAL	ALL	5
479394.33	3744571.39	0.05519	442	442	0	ANNUAL	ALL	5
479407.43	3744571.39	0.05442	442	442	0	ANNUAL	ALL	5
479420.53	3744571.39	0.05367	442	442	0	ANNUAL	ALL	5
479433.63	3744571.39	0.05295	442	442	0	ANNUAL	ALL	5
479446.73	3744571.39	0.05223	442	442	0	ANNUAL	ALL	5
479459.83	3744571.39	0.05154	442	442	0	ANNUAL	ALL	5
479472.93	3744571.39	0.05086	442	442	0	ANNUAL	ALL	5
479210.93	3744586.50	0.06761	443	443	0	ANNUAL	ALL	5
479224.03	3744586.50	0.06653	443	443	0	ANNUAL	ALL	5
479237.13	3744586.50	0.06547	443	443	0	ANNUAL	ALL	5
479250.23	3744586.50	0.06444	443	443	0	ANNUAL	ALL	5
479263.33	3744586.50	0.06343	443	443	0	ANNUAL	ALL	5
479276.43	3744586.50	0.06246	443	443	0	ANNUAL	ALL	5
479289.53	3744586.50	0.06151	443	443	0	ANNUAL	ALL	5
479302.63	3744586.50	0.06057	442.58	442.58	0	ANNUAL	ALL	5
479315.73	3744586.50	0.05966	442.14	442.14	0	ANNUAL	ALL	5
479328.83	3744586.50	0.05878	442	442	0	ANNUAL	ALL	5
479341.93	3744586.50	0.05793	442	442	0	ANNUAL	ALL	5
479355.03	3744586.50	0.0571	442	442	0	ANNUAL	ALL	5
479368.13	3744586.50	0.05628	442	442	0	ANNUAL	ALL	5
479381.23	3744586.50	0.05549	442	442	0	ANNUAL	ALL	5
479394.33	3744586.50	0.05472	442	442	0	ANNUAL	ALL	5
479407.43	3744586.50	0.05396	442	442	0	ANNUAL	ALL	5
479420.53	3744586.50	0.05323	442	442	0	ANNUAL	ALL	5
479433.63	3744586.50	0.05251	442	442	0	ANNUAL	ALL	5
479446.73	3744586.50	0.05181	442	442	0	ANNUAL	ALL	5
479459.83	3744586.50	0.05112	442	442	0	ANNUAL	ALL	5
479472.93	3744586.50	0.05045	442	442	0	ANNUAL	ALL	5
479210.93	3744601.61	0.06697	443	443	0	ANNUAL	ALL	5
479224.03	3744601.61	0.0659	443	443	0	ANNUAL	ALL	5
479237.13	3744601.61	0.06485	443	443	0	ANNUAL	ALL	5
479250.23	3744601.61	0.06384	443	443	0	ANNUAL	ALL	5
479263.33	3744601.61	0.06285	443	443	0	ANNUAL	ALL	5
479276.43	3744601.61	0.06189	443	443	0	ANNUAL	ALL	5
479289.53	3744601.61	0.06096	443	443	0	ANNUAL	ALL	5
479302.63	3744601.61	0.06003	442.58	442.58	0	ANNUAL	ALL	5
479315.73	3744601.61	0.05913	442.14	442.14	0	ANNUAL	ALL	5
479328.83	3744601.61	0.05826	442	442	0	ANNUAL	ALL	5
479341.93	3744601.61	0.05742	442	442	0	ANNUAL	ALL	5
479355.03	3744601.61	0.05659	442	442	0	ANNUAL	ALL	5
479368.13	3744601.61	0.05579	442	442	0	ANNUAL	ALL	5
479381.23	3744601.61	0.05501	442	442	0	ANNUAL	ALL	5
479394.33	3744601.61	0.05425	442	442	0	ANNUAL	ALL	5
479407.43	3744601.61	0.0535	442	442	0	ANNUAL	ALL	5
479420.53	3744601.61	0.05278	442	442	0	ANNUAL	ALL	5
479433.63	3744601.61	0.05207	442	442	0	ANNUAL	ALL	5
479446.73	3744601.61	0.05137	442	442	0	ANNUAL	ALL	5
479459.83	3744601.61	0.0507	442	442	0	ANNUAL	ALL	5
479472.93	3744601.61	0.05004	442	442	0	ANNUAL	ALL	5
479210.93	3744616.72	0.06633	443	443	0	ANNUAL	ALL	5
479224.03	3744616.72	0.06527	443	443	0	ANNUAL	ALL	5
479237.13	3744616.72	0.06424	443	443	0	ANNUAL	ALL	5
479250.23	3744616.72	0.06324	443	443	0	ANNUAL	ALL	5
479263.33	3744616.72	0.06227	443	443	0	ANNUAL	ALL	5
479276.43	3744616.72	0.06132	443	443	0	ANNUAL	ALL	5
479289.53	3744616.72	0.0604	443	443	0	ANNUAL	ALL	5
479302.63	3744616.72	0.05949	442.58	442.58	0	ANNUAL	ALL	5
479315.73	3744616.72	0.0586	442.14	442.14	0	ANNUAL	ALL	5
479328.83	3744616.72	0.05774	442	442	0	ANNUAL	ALL	5
479341.93	3744616.72	0.05691	442	442	0	ANNUAL	ALL	5

479355.03	3744616.72	0.0561	442	442	0	ANNUAL	ALL	5
479368.13	3744616.72	0.05531	442	442	0	ANNUAL	ALL	5
479381.23	3744616.72	0.05454	442	442	0	ANNUAL	ALL	5
479394.33	3744616.72	0.05379	442	442	0	ANNUAL	ALL	5
479407.43	3744616.72	0.05305	442	442	0	ANNUAL	ALL	5
479420.53	3744616.72	0.05234	442	442	0	ANNUAL	ALL	5
479433.63	3744616.72	0.05164	442	442	0	ANNUAL	ALL	5
479446.73	3744616.72	0.05095	442	442	0	ANNUAL	ALL	5
479459.83	3744616.72	0.05028	442	442	0	ANNUAL	ALL	5
479472.93	3744616.72	0.04963	442	442	0	ANNUAL	ALL	5
479210.93	3744631.83	0.06569	443	443	0	ANNUAL	ALL	5
479224.03	3744631.83	0.06465	443	443	0	ANNUAL	ALL	5
479237.13	3744631.83	0.06364	443	443	0	ANNUAL	ALL	5
479250.23	3744631.83	0.06265	443	443	0	ANNUAL	ALL	5
479263.33	3744631.83	0.06169	443	443	0	ANNUAL	ALL	5
479276.43	3744631.83	0.06076	443	443	0	ANNUAL	ALL	5
479289.53	3744631.83	0.05985	443	443	0	ANNUAL	ALL	5
479302.63	3744631.83	0.05895	442.58	442.58	0	ANNUAL	ALL	5
479315.73	3744631.83	0.05807	442.14	442.14	0	ANNUAL	ALL	5
479328.83	3744631.83	0.05722	442	442	0	ANNUAL	ALL	5
479341.93	3744631.83	0.0564	442	442	0	ANNUAL	ALL	5
479355.03	3744631.83	0.0556	442	442	0	ANNUAL	ALL	5
479368.13	3744631.83	0.05482	442	442	0	ANNUAL	ALL	5
479381.23	3744631.83	0.05406	442	442	0	ANNUAL	ALL	5
479394.33	3744631.83	0.05332	442	442	0	ANNUAL	ALL	5
479407.43	3744631.83	0.05259	442	442	0	ANNUAL	ALL	5
479420.53	3744631.83	0.05189	442	442	0	ANNUAL	ALL	5
479433.63	3744631.83	0.0512	442	442	0	ANNUAL	ALL	5
479446.73	3744631.83	0.05052	442	442	0	ANNUAL	ALL	5
479459.83	3744631.83	0.04986	442	442	0	ANNUAL	ALL	5
479472.93	3744631.83	0.04922	442	442	0	ANNUAL	ALL	5
479210.93	3744646.94	0.06505	443	443	0	ANNUAL	ALL	5
479224.03	3744646.94	0.06402	443	443	0	ANNUAL	ALL	5
479237.13	3744646.94	0.06303	443	443	0	ANNUAL	ALL	5
479250.23	3744646.94	0.06206	443	443	0	ANNUAL	ALL	5
479263.33	3744646.94	0.06111	443	443	0	ANNUAL	ALL	5
479276.43	3744646.94	0.06019	443	443	0	ANNUAL	ALL	5
479289.53	3744646.94	0.05929	443	443	0	ANNUAL	ALL	5
479302.63	3744646.94	0.05841	442.59	442.59	0	ANNUAL	ALL	5
479315.73	3744646.94	0.05754	442.16	442.16	0	ANNUAL	ALL	5
479328.83	3744646.94	0.05671	442.02	442.02	0	ANNUAL	ALL	5
479341.93	3744646.94	0.0559	442.01	442.01	0	ANNUAL	ALL	5
479355.03	3744646.94	0.05511	442	442	0	ANNUAL	ALL	5
479368.13	3744646.94	0.05435	442	442	0	ANNUAL	ALL	5
479381.23	3744646.94	0.0536	442	442	0	ANNUAL	ALL	5
479394.33	3744646.94	0.05286	442	442	0	ANNUAL	ALL	5
479407.43	3744646.94	0.05215	442	442	0	ANNUAL	ALL	5
479420.53	3744646.94	0.05145	442	442	0	ANNUAL	ALL	5
479433.63	3744646.94	0.05077	442	442	0	ANNUAL	ALL	5
479446.73	3744646.94	0.0501	442	442	0	ANNUAL	ALL	5
479459.83	3744646.94	0.04945	442	442	0	ANNUAL	ALL	5
479472.93	3744646.94	0.04882	442	442	0	ANNUAL	ALL	5
479210.93	3744662.05	0.06443	443	443	0	ANNUAL	ALL	5
479224.03	3744662.05	0.06342	443	443	0	ANNUAL	ALL	5
479237.13	3744662.05	0.06243	443	443	0	ANNUAL	ALL	5
479250.23	3744662.05	0.06148	443	443	0	ANNUAL	ALL	5
479263.33	3744662.05	0.06054	443	443	0	ANNUAL	ALL	5
479276.43	3744662.05	0.05964	443	443	0	ANNUAL	ALL	5
479289.53	3744662.05	0.05875	443	443	0	ANNUAL	ALL	5
479302.63	3744662.05	0.05789	442.8	442.8	0	ANNUAL	ALL	5
479315.73	3744662.05	0.05704	442.6	442.6	0	ANNUAL	ALL	5
479328.83	3744662.05	0.05622	442.37	442.37	0	ANNUAL	ALL	5
479341.93	3744662.05	0.05542	442.14	442.14	0	ANNUAL	ALL	5
479355.03	3744662.05	0.05463	442	442	0	ANNUAL	ALL	5
479368.13	3744662.05	0.05388	442	442	0	ANNUAL	ALL	5
479381.23	3744662.05	0.05314	442	442	0	ANNUAL	ALL	5

479394.33	3744662.05	0.05241	442	442	0	ANNUAL	ALL	5
479407.43	3744662.05	0.05171	442	442	0	ANNUAL	ALL	5
479420.53	3744662.05	0.05102	442	442	0	ANNUAL	ALL	5
479433.63	3744662.05	0.05035	442	442	0	ANNUAL	ALL	5
479446.73	3744662.05	0.04969	442	442	0	ANNUAL	ALL	5
479459.83	3744662.05	0.04905	442	442	0	ANNUAL	ALL	5
479472.93	3744662.05	0.04842	442	442	0	ANNUAL	ALL	5
479210.93	3744677.16	0.06382	443	443	0	ANNUAL	ALL	5
479224.03	3744677.16	0.06282	443	443	0	ANNUAL	ALL	5
479237.13	3744677.16	0.06186	443	443	0	ANNUAL	ALL	5
479250.23	3744677.16	0.06091	443	443	0	ANNUAL	ALL	5
479263.33	3744677.16	0.06	443	443	0	ANNUAL	ALL	5
479276.43	3744677.16	0.0591	443	443	0	ANNUAL	ALL	5
479289.53	3744677.16	0.05823	443	443	0	ANNUAL	ALL	5
479302.63	3744677.16	0.05738	443	443	0	ANNUAL	ALL	5
479315.73	3744677.16	0.05655	443	443	0	ANNUAL	ALL	5
479328.83	3744677.16	0.05574	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744677.16	0.05494	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744677.16	0.05417	442	442	0	ANNUAL	ALL	5
479368.13	3744677.16	0.05342	442	442	0	ANNUAL	ALL	5
479381.23	3744677.16	0.05269	442	442	0	ANNUAL	ALL	5
479394.33	3744677.16	0.05198	442	442	0	ANNUAL	ALL	5
479407.43	3744677.16	0.05128	442	442	0	ANNUAL	ALL	5
479420.53	3744677.16	0.0506	442	442	0	ANNUAL	ALL	5
479433.63	3744677.16	0.04994	442	442	0	ANNUAL	ALL	5
479446.73	3744677.16	0.04929	442	442	0	ANNUAL	ALL	5
479459.83	3744677.16	0.04865	442	442	0	ANNUAL	ALL	5
479472.93	3744677.16	0.04803	442	442	0	ANNUAL	ALL	5
479210.93	3744692.27	0.06322	443	443	0	ANNUAL	ALL	5
479224.03	3744692.27	0.06224	443	443	0	ANNUAL	ALL	5
479237.13	3744692.27	0.06128	443	443	0	ANNUAL	ALL	5
479250.23	3744692.27	0.06035	443	443	0	ANNUAL	ALL	5
479263.33	3744692.27	0.05945	443	443	0	ANNUAL	ALL	5
479276.43	3744692.27	0.05857	443	443	0	ANNUAL	ALL	5
479289.53	3744692.27	0.05771	443	443	0	ANNUAL	ALL	5
479302.63	3744692.27	0.05687	443	443	0	ANNUAL	ALL	5
479315.73	3744692.27	0.05606	443	443	0	ANNUAL	ALL	5
479328.83	3744692.27	0.05526	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744692.27	0.05447	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744692.27	0.05371	442	442	0	ANNUAL	ALL	5
479368.13	3744692.27	0.05297	442	442	0	ANNUAL	ALL	5
479381.23	3744692.27	0.05225	442	442	0	ANNUAL	ALL	5
479394.33	3744692.27	0.05155	442	442	0	ANNUAL	ALL	5
479407.43	3744692.27	0.05086	442	442	0	ANNUAL	ALL	5
479420.53	3744692.27	0.05019	442	442	0	ANNUAL	ALL	5
479433.63	3744692.27	0.04954	442	442	0	ANNUAL	ALL	5
479446.73	3744692.27	0.0489	442	442	0	ANNUAL	ALL	5
479459.83	3744692.27	0.04827	442	442	0	ANNUAL	ALL	5
479472.93	3744692.27	0.04766	442	442	0	ANNUAL	ALL	5
479210.93	3744707.38	0.06262	443	443	0	ANNUAL	ALL	5
479224.03	3744707.38	0.06166	443	443	0	ANNUAL	ALL	5
479237.13	3744707.38	0.06072	443	443	0	ANNUAL	ALL	5
479250.23	3744707.38	0.0598	443	443	0	ANNUAL	ALL	5
479263.33	3744707.38	0.05891	443	443	0	ANNUAL	ALL	5
479276.43	3744707.38	0.05804	443	443	0	ANNUAL	ALL	5
479289.53	3744707.38	0.0572	443	443	0	ANNUAL	ALL	5
479302.63	3744707.38	0.05637	443	443	0	ANNUAL	ALL	5
479315.73	3744707.38	0.05557	443	443	0	ANNUAL	ALL	5
479328.83	3744707.38	0.05478	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744707.38	0.054	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744707.38	0.05325	442	442	0	ANNUAL	ALL	5
479368.13	3744707.38	0.05252	442	442	0	ANNUAL	ALL	5
479381.23	3744707.38	0.05181	442	442	0	ANNUAL	ALL	5
479394.33	3744707.38	0.05112	442	442	0	ANNUAL	ALL	5
479407.43	3744707.38	0.05044	442	442	0	ANNUAL	ALL	5
479420.53	3744707.38	0.04978	442	442	0	ANNUAL	ALL	5

479433.63	3744707.38	0.04913	442	442	0	ANNUAL	ALL	5
479446.73	3744707.38	0.0485	442	442	0	ANNUAL	ALL	5
479459.83	3744707.38	0.04788	442	442	0	ANNUAL	ALL	5
479472.93	3744707.38	0.04728	442	442	0	ANNUAL	ALL	5
479210.93	3744722.49	0.06204	443	443	0	ANNUAL	ALL	5
479224.03	3744722.49	0.06109	443	443	0	ANNUAL	ALL	5
479237.13	3744722.49	0.06017	443	443	0	ANNUAL	ALL	5
479250.23	3744722.49	0.05927	443	443	0	ANNUAL	ALL	5
479263.33	3744722.49	0.05839	443	443	0	ANNUAL	ALL	5
479276.43	3744722.49	0.05753	443	443	0	ANNUAL	ALL	5
479289.53	3744722.49	0.0567	443	443	0	ANNUAL	ALL	5
479302.63	3744722.49	0.05588	443	443	0	ANNUAL	ALL	5
479315.73	3744722.49	0.05509	443	443	0	ANNUAL	ALL	5
479328.83	3744722.49	0.05431	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744722.49	0.05355	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744722.49	0.0528	442	442	0	ANNUAL	ALL	5
479368.13	3744722.49	0.05209	442	442	0	ANNUAL	ALL	5
479381.23	3744722.49	0.05139	442	442	0	ANNUAL	ALL	5
479394.33	3744722.49	0.0507	442	442	0	ANNUAL	ALL	5
479407.43	3744722.49	0.05004	442	442	0	ANNUAL	ALL	5
479420.53	3744722.49	0.04938	442	442	0	ANNUAL	ALL	5
479433.63	3744722.49	0.04875	442	442	0	ANNUAL	ALL	5
479446.73	3744722.49	0.04812	442	442	0	ANNUAL	ALL	5
479459.83	3744722.49	0.04752	442	442	0	ANNUAL	ALL	5
479472.93	3744722.49	0.04692	442	442	0	ANNUAL	ALL	5
479210.93	3744737.60	0.06149	443	443	0	ANNUAL	ALL	5
479224.03	3744737.60	0.06055	443	443	0	ANNUAL	ALL	5
479237.13	3744737.60	0.05964	443	443	0	ANNUAL	ALL	5
479250.23	3744737.60	0.05875	443	443	0	ANNUAL	ALL	5
479263.33	3744737.60	0.05788	443	443	0	ANNUAL	ALL	5
479276.43	3744737.60	0.05704	443	443	0	ANNUAL	ALL	5
479289.53	3744737.60	0.05622	443	443	0	ANNUAL	ALL	5
479302.63	3744737.60	0.05542	443	443	0	ANNUAL	ALL	5
479315.73	3744737.60	0.05464	443	443	0	ANNUAL	ALL	5
479328.83	3744737.60	0.05387	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744737.60	0.05311	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744737.60	0.05238	442	442	0	ANNUAL	ALL	5
479368.13	3744737.60	0.05167	442	442	0	ANNUAL	ALL	5
479381.23	3744737.60	0.05098	442	442	0	ANNUAL	ALL	5
479394.33	3744737.60	0.0503	442	442	0	ANNUAL	ALL	5
479407.43	3744737.60	0.04964	442	442	0	ANNUAL	ALL	5
479420.53	3744737.60	0.049	442	442	0	ANNUAL	ALL	5
479433.63	3744737.60	0.04837	442	442	0	ANNUAL	ALL	5
479446.73	3744737.60	0.04775	442	442	0	ANNUAL	ALL	5
479459.83	3744737.60	0.04715	442	442	0	ANNUAL	ALL	5
479472.93	3744737.60	0.04656	442	442	0	ANNUAL	ALL	5
479210.93	3744752.71	0.06095	443	443	0	ANNUAL	ALL	5
479224.03	3744752.71	0.06002	443	443	0	ANNUAL	ALL	5
479237.13	3744752.71	0.05912	443	443	0	ANNUAL	ALL	5
479250.23	3744752.71	0.05825	443	443	0	ANNUAL	ALL	5
479263.33	3744752.71	0.05739	443	443	0	ANNUAL	ALL	5
479276.43	3744752.71	0.05656	443	443	0	ANNUAL	ALL	5
479289.53	3744752.71	0.05575	443	443	0	ANNUAL	ALL	5
479302.63	3744752.71	0.05496	443	443	0	ANNUAL	ALL	5
479315.73	3744752.71	0.05418	443	443	0	ANNUAL	ALL	5
479328.83	3744752.71	0.05342	442.7	442.7	0	ANNUAL	ALL	5
479341.93	3744752.71	0.05268	442.27	442.27	0	ANNUAL	ALL	5
479355.03	3744752.71	0.05195	442	442	0	ANNUAL	ALL	5
479368.13	3744752.71	0.05126	442	442	0	ANNUAL	ALL	5
479381.23	3744752.71	0.05057	442	442	0	ANNUAL	ALL	5
479394.33	3744752.71	0.04991	442	442	0	ANNUAL	ALL	5
479407.43	3744752.71	0.04926	442	442	0	ANNUAL	ALL	5
479420.53	3744752.71	0.04862	442	442	0	ANNUAL	ALL	5
479433.63	3744752.71	0.048	442	442	0	ANNUAL	ALL	5
479446.73	3744752.71	0.04739	442	442	0	ANNUAL	ALL	5
479459.83	3744752.71	0.0468	442	442	0	ANNUAL	ALL	5

479472.93	3744752.71	0.04622	442	442	0	ANNUAL	ALL	5
479210.93	3744767.82	0.06041	443	443	0	ANNUAL	ALL	5
479224.03	3744767.82	0.0595	443	443	0	ANNUAL	ALL	5
479237.13	3744767.82	0.05862	443	443	0	ANNUAL	ALL	5
479250.23	3744767.82	0.05775	443	443	0	ANNUAL	ALL	5
479263.33	3744767.82	0.05691	443	443	0	ANNUAL	ALL	5
479276.43	3744767.82	0.05609	443	443	0	ANNUAL	ALL	5
479289.53	3744767.82	0.05529	443	443	0	ANNUAL	ALL	5
479302.63	3744767.82	0.05451	443	443	0	ANNUAL	ALL	5
479315.73	3744767.82	0.05375	443	443	0	ANNUAL	ALL	5
479328.83	3744767.82	0.053	442.72	442.72	0	ANNUAL	ALL	5
479341.93	3744767.82	0.05226	442.31	442.31	0	ANNUAL	ALL	5
479355.03	3744767.82	0.05155	442.05	442.05	0	ANNUAL	ALL	5
479368.13	3744767.82	0.05086	442.02	442.02	0	ANNUAL	ALL	5
479381.23	3744767.82	0.05019	442	442	0	ANNUAL	ALL	5
479394.33	3744767.82	0.04953	442	442	0	ANNUAL	ALL	5
479407.43	3744767.82	0.04889	442	442	0	ANNUAL	ALL	5
479420.53	3744767.82	0.04826	442	442	0	ANNUAL	ALL	5
479433.63	3744767.82	0.04765	442	442	0	ANNUAL	ALL	5
479446.73	3744767.82	0.04705	442	442	0	ANNUAL	ALL	5
479459.83	3744767.82	0.04646	442	442	0	ANNUAL	ALL	5
479472.93	3744767.82	0.04589	442	442	0	ANNUAL	ALL	5
479210.93	3744782.93	0.0599	443	443	0	ANNUAL	ALL	5
479224.03	3744782.93	0.059	443	443	0	ANNUAL	ALL	5
479237.13	3744782.93	0.05813	443	443	0	ANNUAL	ALL	5
479250.23	3744782.93	0.05728	443	443	0	ANNUAL	ALL	5
479263.33	3744782.93	0.05645	443	443	0	ANNUAL	ALL	5
479276.43	3744782.93	0.05564	443	443	0	ANNUAL	ALL	5
479289.53	3744782.93	0.05485	443	443	0	ANNUAL	ALL	5
479302.63	3744782.93	0.05408	443	443	0	ANNUAL	ALL	5
479315.73	3744782.93	0.05333	443	443	0	ANNUAL	ALL	5
479328.83	3744782.93	0.05259	442.87	442.87	0	ANNUAL	ALL	5
479341.93	3744782.93	0.05187	442.68	442.68	0	ANNUAL	ALL	5
479355.03	3744782.93	0.05117	442.46	442.46	0	ANNUAL	ALL	5
479368.13	3744782.93	0.05048	442.22	442.22	0	ANNUAL	ALL	5
479381.23	3744782.93	0.04981	442	442	0	ANNUAL	ALL	5
479394.33	3744782.93	0.04916	442	442	0	ANNUAL	ALL	5
479407.43	3744782.93	0.04853	442	442	0	ANNUAL	ALL	5
479420.53	3744782.93	0.04791	442	442	0	ANNUAL	ALL	5
479433.63	3744782.93	0.0473	442	442	0	ANNUAL	ALL	5
479446.73	3744782.93	0.04671	442	442	0	ANNUAL	ALL	5
479459.83	3744782.93	0.04613	442	442	0	ANNUAL	ALL	5
479472.93	3744782.93	0.04557	442	442	0	ANNUAL	ALL	5
479210.93	3744798.04	0.05943	443	443	0	ANNUAL	ALL	5
479224.03	3744798.04	0.05854	443	443	0	ANNUAL	ALL	5
479237.13	3744798.04	0.05768	443	443	0	ANNUAL	ALL	5
479250.23	3744798.04	0.05683	443	443	0	ANNUAL	ALL	5
479263.33	3744798.04	0.05601	443	443	0	ANNUAL	ALL	5
479276.43	3744798.04	0.05522	443	443	0	ANNUAL	ALL	5
479289.53	3744798.04	0.05444	443	443	0	ANNUAL	ALL	5
479302.63	3744798.04	0.05368	443	443	0	ANNUAL	ALL	5
479315.73	3744798.04	0.05294	443	443	0	ANNUAL	ALL	5
479328.83	3744798.04	0.05221	443	443	0	ANNUAL	ALL	5
479341.93	3744798.04	0.05151	443	443	0	ANNUAL	ALL	5
479355.03	3744798.04	0.05081	442.83	442.83	0	ANNUAL	ALL	5
479368.13	3744798.04	0.05013	442.39	442.39	0	ANNUAL	ALL	5
479381.23	3744798.04	0.04946	442	442	0	ANNUAL	ALL	5
479394.33	3744798.04	0.04882	442	442	0	ANNUAL	ALL	5
479407.43	3744798.04	0.04819	442	442	0	ANNUAL	ALL	5
479420.53	3744798.04	0.04758	442	442	0	ANNUAL	ALL	5
479433.63	3744798.04	0.04698	442	442	0	ANNUAL	ALL	5
479446.73	3744798.04	0.0464	442	442	0	ANNUAL	ALL	5
479459.83	3744798.04	0.04583	442	442	0	ANNUAL	ALL	5
479472.93	3744798.04	0.04527	442	442	0	ANNUAL	ALL	5
479210.93	3744813.15	0.05896	443	443	0	ANNUAL	ALL	5
479224.03	3744813.15	0.05808	443	443	0	ANNUAL	ALL	5

479237.13	3744813.15	0.05723	443	443	0	ANNUAL	ALL	5
479250.23	3744813.15	0.0564	443	443	0	ANNUAL	ALL	5
479263.33	3744813.15	0.05559	443	443	0	ANNUAL	ALL	5
479276.43	3744813.15	0.0548	443	443	0	ANNUAL	ALL	5
479289.53	3744813.15	0.05403	443	443	0	ANNUAL	ALL	5
479302.63	3744813.15	0.05328	443	443	0	ANNUAL	ALL	5
479315.73	3744813.15	0.05255	443	443	0	ANNUAL	ALL	5
479328.83	3744813.15	0.05183	443	443	0	ANNUAL	ALL	5
479341.93	3744813.15	0.05113	443	443	0	ANNUAL	ALL	5
479355.03	3744813.15	0.05045	442.83	442.83	0	ANNUAL	ALL	5
479368.13	3744813.15	0.04977	442.39	442.39	0	ANNUAL	ALL	5
479381.23	3744813.15	0.04911	442	442	0	ANNUAL	ALL	5
479394.33	3744813.15	0.04848	442	442	0	ANNUAL	ALL	5
479407.43	3744813.15	0.04786	442	442	0	ANNUAL	ALL	5
479420.53	3744813.15	0.04725	442	442	0	ANNUAL	ALL	5
479433.63	3744813.15	0.04666	442	442	0	ANNUAL	ALL	5
479446.73	3744813.15	0.04608	442	442	0	ANNUAL	ALL	5
479459.83	3744813.15	0.04551	442	442	0	ANNUAL	ALL	5
479472.93	3744813.15	0.04496	442	442	0	ANNUAL	ALL	5
479210.93	3744828.26	0.05852	443	443	0	ANNUAL	ALL	5
479224.03	3744828.26	0.05765	443	443	0	ANNUAL	ALL	5
479237.13	3744828.26	0.05681	443	443	0	ANNUAL	ALL	5
479250.23	3744828.26	0.05599	443	443	0	ANNUAL	ALL	5
479263.33	3744828.26	0.05519	443	443	0	ANNUAL	ALL	5
479276.43	3744828.26	0.05441	443	443	0	ANNUAL	ALL	5
479289.53	3744828.26	0.05365	443	443	0	ANNUAL	ALL	5
479302.63	3744828.26	0.05291	443	443	0	ANNUAL	ALL	5
479315.73	3744828.26	0.05218	443	443	0	ANNUAL	ALL	5
479328.83	3744828.26	0.05148	443	443	0	ANNUAL	ALL	5
479341.93	3744828.26	0.05079	443	443	0	ANNUAL	ALL	5
479355.03	3744828.26	0.05011	442.83	442.83	0	ANNUAL	ALL	5
479368.13	3744828.26	0.04944	442.39	442.39	0	ANNUAL	ALL	5
479381.23	3744828.26	0.04879	442	442	0	ANNUAL	ALL	5
479394.33	3744828.26	0.04816	442	442	0	ANNUAL	ALL	5
479407.43	3744828.26	0.04755	442	442	0	ANNUAL	ALL	5
479420.53	3744828.26	0.04695	442	442	0	ANNUAL	ALL	5
479433.63	3744828.26	0.04636	442	442	0	ANNUAL	ALL	5
479446.73	3744828.26	0.04579	442	442	0	ANNUAL	ALL	5
479459.83	3744828.26	0.04523	442	442	0	ANNUAL	ALL	5
479472.93	3744828.26	0.04468	442	442	0	ANNUAL	ALL	5
479210.93	3744843.37	0.0581	443	443	0	ANNUAL	ALL	5
479224.03	3744843.37	0.05724	443	443	0	ANNUAL	ALL	5
479237.13	3744843.37	0.05641	443	443	0	ANNUAL	ALL	5
479250.23	3744843.37	0.0556	443	443	0	ANNUAL	ALL	5
479263.33	3744843.37	0.05481	443	443	0	ANNUAL	ALL	5
479276.43	3744843.37	0.05404	443	443	0	ANNUAL	ALL	5
479289.53	3744843.37	0.05328	443	443	0	ANNUAL	ALL	5
479302.63	3744843.37	0.05255	443	443	0	ANNUAL	ALL	5
479315.73	3744843.37	0.05183	443	443	0	ANNUAL	ALL	5
479328.83	3744843.37	0.05113	443	443	0	ANNUAL	ALL	5
479341.93	3744843.37	0.05045	443	443	0	ANNUAL	ALL	5
479355.03	3744843.37	0.04978	442.83	442.83	0	ANNUAL	ALL	5
479368.13	3744843.37	0.04912	442.39	442.39	0	ANNUAL	ALL	5
479381.23	3744843.37	0.04847	442	442	0	ANNUAL	ALL	5
479394.33	3744843.37	0.04785	442	442	0	ANNUAL	ALL	5
479407.43	3744843.37	0.04724	442	442	0	ANNUAL	ALL	5
479420.53	3744843.37	0.04665	442	442	0	ANNUAL	ALL	5
479433.63	3744843.37	0.04607	442	442	0	ANNUAL	ALL	5
479446.73	3744843.37	0.0455	442	442	0	ANNUAL	ALL	5
479459.83	3744843.37	0.04495	442	442	0	ANNUAL	ALL	5
479472.93	3744843.37	0.0444	442	442	0	ANNUAL	ALL	5
479210.93	3744858.48	0.05772	443	443	0	ANNUAL	ALL	5
479224.03	3744858.48	0.05688	443	443	0	ANNUAL	ALL	5
479237.13	3744858.48	0.05605	443	443	0	ANNUAL	ALL	5
479250.23	3744858.48	0.05525	443	443	0	ANNUAL	ALL	5
479263.33	3744858.48	0.05446	443	443	0	ANNUAL	ALL	5

479276.43	3744858.48	0.0537	443	443	0	ANNUAL	ALL	5
479289.53	3744858.48	0.05295	443	443	0	ANNUAL	ALL	5
479302.63	3744858.48	0.05222	443	443	0	ANNUAL	ALL	5
479315.73	3744858.48	0.05151	443	443	0	ANNUAL	ALL	5
479328.83	3744858.48	0.05082	443	443	0	ANNUAL	ALL	5
479341.93	3744858.48	0.05014	443	443	0	ANNUAL	ALL	5
479355.03	3744858.48	0.04948	442.83	442.83	0	ANNUAL	ALL	5
479368.13	3744858.48	0.04882	442.39	442.39	0	ANNUAL	ALL	5
479381.23	3744858.48	0.04818	442	442	0	ANNUAL	ALL	5
479394.33	3744858.48	0.04757	442	442	0	ANNUAL	ALL	5
479407.43	3744858.48	0.04697	442	442	0	ANNUAL	ALL	5
479420.53	3744858.48	0.04638	442	442	0	ANNUAL	ALL	5
479433.63	3744858.48	0.04581	442	442	0	ANNUAL	ALL	5
479446.73	3744858.48	0.04524	442	442	0	ANNUAL	ALL	5
479459.83	3744858.48	0.04469	442	442	0	ANNUAL	ALL	5
479472.93	3744858.48	0.04416	442	442	0	ANNUAL	ALL	5
477060.35	3744208.50	0.33292	456	456	0	ANNUAL	ALL	5
477078.41	3744208.50	0.33935	456	456	0	ANNUAL	ALL	5
477096.47	3744208.50	0.34591	456	456	0	ANNUAL	ALL	5
477114.53	3744208.50	0.35287	455.8	455.8	0	ANNUAL	ALL	5
477132.59	3744208.50	0.36012	455.54	455.54	0	ANNUAL	ALL	5
477150.65	3744208.50	0.36777	455.18	455.18	0	ANNUAL	ALL	5
477168.71	3744208.50	0.37541	455	455	0	ANNUAL	ALL	5
477186.77	3744208.50	0.38301	455	455	0	ANNUAL	ALL	5
477204.83	3744208.50	0.39086	455	455	0	ANNUAL	ALL	5
477222.89	3744208.50	0.39899	455	455	0	ANNUAL	ALL	5
477240.95	3744208.50	0.40742	455	455	0	ANNUAL	ALL	5
477259.01	3744208.50	0.41683	454.7	454.7	0	ANNUAL	ALL	5
477277.07	3744208.50	0.42737	454.09	454.09	0	ANNUAL	ALL	5
477295.13	3744208.50	0.44043	454	454	0	ANNUAL	ALL	5
477313.19	3744208.50	0.4507	454	454	0	ANNUAL	ALL	5
477331.25	3744208.50	0.46139	454	454	0	ANNUAL	ALL	5
477349.31	3744208.50	0.47252	454	454	0	ANNUAL	ALL	5
477367.37	3744208.50	0.48413	454	454	0	ANNUAL	ALL	5
477385.43	3744208.50	0.49625	454	454	0	ANNUAL	ALL	5
477403.49	3744208.50	0.509	453.95	453.95	0	ANNUAL	ALL	5
477421.55	3744208.50	0.52279	453.7	453.7	0	ANNUAL	ALL	5
477060.35	3744217.03	0.33699	456	456	0	ANNUAL	ALL	5
477078.41	3744217.03	0.34365	456	456	0	ANNUAL	ALL	5
477096.47	3744217.03	0.35045	456	456	0	ANNUAL	ALL	5
477114.53	3744217.03	0.35782	455.66	455.66	0	ANNUAL	ALL	5
477132.59	3744217.03	0.36549	455.28	455.28	0	ANNUAL	ALL	5
477150.65	3744217.03	0.37316	455.09	455.09	0	ANNUAL	ALL	5
477168.71	3744217.03	0.38091	455	455	0	ANNUAL	ALL	5
477186.77	3744217.03	0.38877	455	455	0	ANNUAL	ALL	5
477204.83	3744217.03	0.39689	455	455	0	ANNUAL	ALL	5
477222.89	3744217.03	0.40528	455	455	0	ANNUAL	ALL	5
477240.95	3744217.03	0.41398	455	455	0	ANNUAL	ALL	5
477259.01	3744217.03	0.42368	454.7	454.7	0	ANNUAL	ALL	5
477277.07	3744217.03	0.43454	454.09	454.09	0	ANNUAL	ALL	5
477295.13	3744217.03	0.44788	454	454	0	ANNUAL	ALL	5
477313.19	3744217.03	0.4585	454	454	0	ANNUAL	ALL	5
477331.25	3744217.03	0.46954	454	454	0	ANNUAL	ALL	5
477349.31	3744217.03	0.48106	454	454	0	ANNUAL	ALL	5
477367.37	3744217.03	0.49306	454	454	0	ANNUAL	ALL	5
477385.43	3744217.03	0.50559	454	454	0	ANNUAL	ALL	5
477403.49	3744217.03	0.51885	453.92	453.92	0	ANNUAL	ALL	5
477421.55	3744217.03	0.53352	453.5	453.5	0	ANNUAL	ALL	5
477060.35	3744225.56	0.34108	456	456	0	ANNUAL	ALL	5
477078.41	3744225.56	0.34798	456	456	0	ANNUAL	ALL	5
477096.47	3744225.56	0.35503	456	456	0	ANNUAL	ALL	5
477114.53	3744225.56	0.36282	455.52	455.52	0	ANNUAL	ALL	5
477132.59	3744225.56	0.37093	455.02	455.02	0	ANNUAL	ALL	5
477150.65	3744225.56	0.37862	455.01	455.01	0	ANNUAL	ALL	5
477168.71	3744225.56	0.38653	455	455	0	ANNUAL	ALL	5
477186.77	3744225.56	0.39465	455	455	0	ANNUAL	ALL	5

477204.83	3744225.56	0.40304	455	455	0	ANNUAL	ALL	5
477222.89	3744225.56	0.41171	455	455	0	ANNUAL	ALL	5
477240.95	3744225.56	0.42071	455	455	0	ANNUAL	ALL	5
477259.01	3744225.56	0.4307	454.7	454.7	0	ANNUAL	ALL	5
477277.07	3744225.56	0.44189	454.09	454.09	0	ANNUAL	ALL	5
477295.13	3744225.56	0.45553	454	454	0	ANNUAL	ALL	5
477313.19	3744225.56	0.4665	454	454	0	ANNUAL	ALL	5
477331.25	3744225.56	0.47792	454	454	0	ANNUAL	ALL	5
477349.31	3744225.56	0.48983	454	454	0	ANNUAL	ALL	5
477367.37	3744225.56	0.50225	454	454	0	ANNUAL	ALL	5
477385.43	3744225.56	0.51521	454	454	0	ANNUAL	ALL	5
477403.49	3744225.56	0.52903	453.88	453.88	0	ANNUAL	ALL	5
477421.55	3744225.56	0.54463	453.29	453.29	0	ANNUAL	ALL	5
477060.35	3744234.09	0.34519	456	456	0	ANNUAL	ALL	5
477078.41	3744234.09	0.35243	455.92	455.92	0	ANNUAL	ALL	5
477096.47	3744234.09	0.35991	455.77	455.77	0	ANNUAL	ALL	5
477114.53	3744234.09	0.36788	455.38	455.38	0	ANNUAL	ALL	5
477132.59	3744234.09	0.37611	455	455	0	ANNUAL	ALL	5
477150.65	3744234.09	0.38406	455	455	0	ANNUAL	ALL	5
477168.71	3744234.09	0.39223	455	455	0	ANNUAL	ALL	5
477186.77	3744234.09	0.40065	455	455	0	ANNUAL	ALL	5
477204.83	3744234.09	0.40932	455	455	0	ANNUAL	ALL	5
477222.89	3744234.09	0.41835	454.97	454.97	0	ANNUAL	ALL	5
477240.95	3744234.09	0.42799	454.81	454.81	0	ANNUAL	ALL	5
477259.01	3744234.09	0.43833	454.51	454.51	0	ANNUAL	ALL	5
477277.07	3744234.09	0.44949	454.07	454.07	0	ANNUAL	ALL	5
477295.13	3744234.09	0.46338	454	454	0	ANNUAL	ALL	5
477313.19	3744234.09	0.47472	454	454	0	ANNUAL	ALL	5
477331.25	3744234.09	0.48654	454	454	0	ANNUAL	ALL	5
477349.31	3744234.09	0.49885	454	454	0	ANNUAL	ALL	5
477367.37	3744234.09	0.51171	454	454	0	ANNUAL	ALL	5
477385.43	3744234.09	0.52513	454	454	0	ANNUAL	ALL	5
477403.49	3744234.09	0.53943	453.88	453.88	0	ANNUAL	ALL	5
477421.55	3744234.09	0.55562	453.28	453.28	0	ANNUAL	ALL	5
477060.35	3744242.62	0.34932	456	456	0	ANNUAL	ALL	5
477078.41	3744242.62	0.3569	455.84	455.84	0	ANNUAL	ALL	5
477096.47	3744242.62	0.36485	455.51	455.51	0	ANNUAL	ALL	5
477114.53	3744242.62	0.37299	455.23	455.23	0	ANNUAL	ALL	5
477132.59	3744242.62	0.38132	455	455	0	ANNUAL	ALL	5
477150.65	3744242.62	0.38957	455	455	0	ANNUAL	ALL	5
477168.71	3744242.62	0.39804	455	455	0	ANNUAL	ALL	5
477186.77	3744242.62	0.40675	455	455	0	ANNUAL	ALL	5
477204.83	3744242.62	0.41573	455	455	0	ANNUAL	ALL	5
477222.89	3744242.62	0.42513	454.94	454.94	0	ANNUAL	ALL	5
477240.95	3744242.62	0.43547	454.61	454.61	0	ANNUAL	ALL	5
477259.01	3744242.62	0.44618	454.31	454.31	0	ANNUAL	ALL	5
477277.07	3744242.62	0.4573	454.04	454.04	0	ANNUAL	ALL	5
477295.13	3744242.62	0.47143	454	454	0	ANNUAL	ALL	5
477313.19	3744242.62	0.48317	454	454	0	ANNUAL	ALL	5
477331.25	3744242.62	0.49539	454	454	0	ANNUAL	ALL	5
477349.31	3744242.62	0.50814	454	454	0	ANNUAL	ALL	5
477367.37	3744242.62	0.52144	454	454	0	ANNUAL	ALL	5
477385.43	3744242.62	0.53534	454	454	0	ANNUAL	ALL	5
477403.49	3744242.62	0.55017	453.88	453.88	0	ANNUAL	ALL	5
477421.55	3744242.62	0.56694	453.28	453.28	0	ANNUAL	ALL	5
477060.35	3744251.15	0.35345	456	456	0	ANNUAL	ALL	5
477078.41	3744251.15	0.36139	455.76	455.76	0	ANNUAL	ALL	5
477096.47	3744251.15	0.36981	455.26	455.26	0	ANNUAL	ALL	5
477114.53	3744251.15	0.37814	455.09	455.09	0	ANNUAL	ALL	5
477132.59	3744251.15	0.38659	455	455	0	ANNUAL	ALL	5
477150.65	3744251.15	0.39515	455	455	0	ANNUAL	ALL	5
477168.71	3744251.15	0.40393	455	455	0	ANNUAL	ALL	5
477186.77	3744251.15	0.41296	455	455	0	ANNUAL	ALL	5
477204.83	3744251.15	0.42227	455	455	0	ANNUAL	ALL	5
477222.89	3744251.15	0.43205	454.92	454.92	0	ANNUAL	ALL	5
477240.95	3744251.15	0.44312	454.41	454.41	0	ANNUAL	ALL	5

477259.01	3744251.15	0.4542	454.12	454.12	0	ANNUAL	ALL	5
477277.07	3744251.15	0.4653	454.02	454.02	0	ANNUAL	ALL	5
477295.13	3744251.15	0.47968	454	454	0	ANNUAL	ALL	5
477313.19	3744251.15	0.49184	454	454	0	ANNUAL	ALL	5
477331.25	3744251.15	0.50449	454	454	0	ANNUAL	ALL	5
477349.31	3744251.15	0.5177	454	454	0	ANNUAL	ALL	5
477367.37	3744251.15	0.53148	454	454	0	ANNUAL	ALL	5
477385.43	3744251.15	0.54588	454	454	0	ANNUAL	ALL	5
477403.49	3744251.15	0.56124	453.88	453.88	0	ANNUAL	ALL	5
477421.55	3744251.15	0.57862	453.28	453.28	0	ANNUAL	ALL	5
477060.35	3744259.68	0.35765	455.92	455.92	0	ANNUAL	ALL	5
477078.41	3744259.68	0.36593	455.63	455.63	0	ANNUAL	ALL	5
477096.47	3744259.68	0.37469	455.1	455.1	0	ANNUAL	ALL	5
477114.53	3744259.68	0.38326	455	455	0	ANNUAL	ALL	5
477132.59	3744259.68	0.39192	455	455	0	ANNUAL	ALL	5
477150.65	3744259.68	0.4008	455	455	0	ANNUAL	ALL	5
477168.71	3744259.68	0.40991	455	455	0	ANNUAL	ALL	5
477186.77	3744259.68	0.41928	455	455	0	ANNUAL	ALL	5
477204.83	3744259.68	0.42905	454.94	454.94	0	ANNUAL	ALL	5
477222.89	3744259.68	0.43932	454.79	454.79	0	ANNUAL	ALL	5
477240.95	3744259.68	0.45083	454.26	454.26	0	ANNUAL	ALL	5
477259.01	3744259.68	0.46436	454	454	0	ANNUAL	ALL	5
477277.07	3744259.68	0.47603	454	454	0	ANNUAL	ALL	5
477295.13	3744259.68	0.48815	454	454	0	ANNUAL	ALL	5
477313.19	3744259.68	0.50074	454	454	0	ANNUAL	ALL	5
477331.25	3744259.68	0.51386	454	454	0	ANNUAL	ALL	5
477349.31	3744259.68	0.52753	454	454	0	ANNUAL	ALL	5
477367.37	3744259.68	0.54182	454	454	0	ANNUAL	ALL	5
477385.43	3744259.68	0.55689	453.94	453.94	0	ANNUAL	ALL	5
477403.49	3744259.68	0.57292	453.78	453.78	0	ANNUAL	ALL	5
477421.55	3744259.68	0.5908	453.24	453.24	0	ANNUAL	ALL	5
477060.35	3744268.21	0.36194	455.73	455.73	0	ANNUAL	ALL	5
477078.41	3744268.21	0.37054	455.43	455.43	0	ANNUAL	ALL	5
477096.47	3744268.21	0.37945	455.07	455.07	0	ANNUAL	ALL	5
477114.53	3744268.21	0.38831	455	455	0	ANNUAL	ALL	5
477132.59	3744268.21	0.3973	455	455	0	ANNUAL	ALL	5
477150.65	3744268.21	0.40652	455	455	0	ANNUAL	ALL	5
477168.71	3744268.21	0.41598	455	455	0	ANNUAL	ALL	5
477186.77	3744268.21	0.4257	455	455	0	ANNUAL	ALL	5
477204.83	3744268.21	0.43609	454.8	454.8	0	ANNUAL	ALL	5
477222.89	3744268.21	0.44699	454.54	454.54	0	ANNUAL	ALL	5
477240.95	3744268.21	0.45855	454.18	454.18	0	ANNUAL	ALL	5
477259.01	3744268.21	0.47218	454	454	0	ANNUAL	ALL	5
477277.07	3744268.21	0.48427	454	454	0	ANNUAL	ALL	5
477295.13	3744268.21	0.49683	454	454	0	ANNUAL	ALL	5
477313.19	3744268.21	0.50988	454	454	0	ANNUAL	ALL	5
477331.25	3744268.21	0.52348	454	454	0	ANNUAL	ALL	5
477349.31	3744268.21	0.53766	454	454	0	ANNUAL	ALL	5
477367.37	3744268.21	0.55246	454	454	0	ANNUAL	ALL	5
477385.43	3744268.21	0.56846	453.79	453.79	0	ANNUAL	ALL	5
477403.49	3744268.21	0.58539	453.53	453.53	0	ANNUAL	ALL	5
477421.55	3744268.21	0.60346	453.17	453.17	0	ANNUAL	ALL	5
477060.35	3744276.74	0.36621	455.53	455.53	0	ANNUAL	ALL	5
477078.41	3744276.74	0.37515	455.22	455.22	0	ANNUAL	ALL	5
477096.47	3744276.74	0.38422	455.04	455.04	0	ANNUAL	ALL	5
477114.53	3744276.74	0.39339	455	455	0	ANNUAL	ALL	5
477132.59	3744276.74	0.40273	455	455	0	ANNUAL	ALL	5
477150.65	3744276.74	0.4123	455	455	0	ANNUAL	ALL	5
477168.71	3744276.74	0.42213	455	455	0	ANNUAL	ALL	5
477186.77	3744276.74	0.43223	455	455	0	ANNUAL	ALL	5
477204.83	3744276.74	0.44326	454.66	454.66	0	ANNUAL	ALL	5
477222.89	3744276.74	0.45483	454.28	454.28	0	ANNUAL	ALL	5
477240.95	3744276.74	0.46646	454.09	454.09	0	ANNUAL	ALL	5
477259.01	3744276.74	0.48016	454	454	0	ANNUAL	ALL	5
477277.07	3744276.74	0.49271	454	454	0	ANNUAL	ALL	5
477295.13	3744276.74	0.50579	454	454	0	ANNUAL	ALL	5

477313.19	3744276.74	0.51927	454	454	0	ANNUAL	ALL	5
477331.25	3744276.74	0.53337	454	454	0	ANNUAL	ALL	5
477349.31	3744276.74	0.54807	454	454	0	ANNUAL	ALL	5
477367.37	3744276.74	0.56343	454	454	0	ANNUAL	ALL	5
477385.43	3744276.74	0.58042	453.64	453.64	0	ANNUAL	ALL	5
477403.49	3744276.74	0.59829	453.28	453.28	0	ANNUAL	ALL	5
477421.55	3744276.74	0.61659	453.09	453.09	0	ANNUAL	ALL	5
477060.35	3744285.27	0.37045	455.34	455.34	0	ANNUAL	ALL	5
477078.41	3744285.27	0.37973	455.02	455.02	0	ANNUAL	ALL	5
477096.47	3744285.27	0.38901	455	455	0	ANNUAL	ALL	5
477114.53	3744285.27	0.39848	455	455	0	ANNUAL	ALL	5
477132.59	3744285.27	0.40819	455	455	0	ANNUAL	ALL	5
477150.65	3744285.27	0.41814	455	455	0	ANNUAL	ALL	5
477168.71	3744285.27	0.42835	455	455	0	ANNUAL	ALL	5
477186.77	3744285.27	0.43884	455	455	0	ANNUAL	ALL	5
477204.83	3744285.27	0.45055	454.52	454.52	0	ANNUAL	ALL	5
477222.89	3744285.27	0.46279	454.03	454.03	0	ANNUAL	ALL	5
477240.95	3744285.27	0.47451	454.01	454.01	0	ANNUAL	ALL	5
477259.01	3744285.27	0.48832	454	454	0	ANNUAL	ALL	5
477277.07	3744285.27	0.50134	454	454	0	ANNUAL	ALL	5
477295.13	3744285.27	0.51485	454	454	0	ANNUAL	ALL	5
477313.19	3744285.27	0.5289	454	454	0	ANNUAL	ALL	5
477331.25	3744285.27	0.54353	454	454	0	ANNUAL	ALL	5
477349.31	3744285.27	0.55879	454	454	0	ANNUAL	ALL	5
477367.37	3744285.27	0.57474	454	454	0	ANNUAL	ALL	5
477385.43	3744285.27	0.59274	453.5	453.5	0	ANNUAL	ALL	5
477403.49	3744285.27	0.61162	453.03	453.03	0	ANNUAL	ALL	5
477421.55	3744285.27	0.63017	453.01	453.01	0	ANNUAL	ALL	5
477060.35	3744293.80	0.37454	455.32	455.32	0	ANNUAL	ALL	5
477078.41	3744293.80	0.38415	455	455	0	ANNUAL	ALL	5
477096.47	3744293.80	0.39375	455	455	0	ANNUAL	ALL	5
477114.53	3744293.80	0.4036	455	455	0	ANNUAL	ALL	5
477132.59	3744293.80	0.41368	455	455	0	ANNUAL	ALL	5
477150.65	3744293.80	0.42402	455	455	0	ANNUAL	ALL	5
477168.71	3744293.80	0.43474	454.93	454.93	0	ANNUAL	ALL	5
477186.77	3744293.80	0.44594	454.77	454.77	0	ANNUAL	ALL	5
477204.83	3744293.80	0.45796	454.37	454.37	0	ANNUAL	ALL	5
477222.89	3744293.80	0.471	454	454	0	ANNUAL	ALL	5
477240.95	3744293.80	0.4836	454	454	0	ANNUAL	ALL	5
477259.01	3744293.80	0.49665	454	454	0	ANNUAL	ALL	5
477277.07	3744293.80	0.51017	454	454	0	ANNUAL	ALL	5
477295.13	3744293.80	0.5242	454	454	0	ANNUAL	ALL	5
477313.19	3744293.80	0.53879	454	454	0	ANNUAL	ALL	5
477331.25	3744293.80	0.55398	454	454	0	ANNUAL	ALL	5
477349.31	3744293.80	0.57002	453.92	453.92	0	ANNUAL	ALL	5
477367.37	3744293.80	0.58698	453.77	453.77	0	ANNUAL	ALL	5
477385.43	3744293.80	0.60546	453.36	453.36	0	ANNUAL	ALL	5
477403.49	3744293.80	0.62478	453	453	0	ANNUAL	ALL	5
477421.55	3744293.80	0.64399	453	453	0	ANNUAL	ALL	5
477060.35	3744302.33	0.37857	455.32	455.32	0	ANNUAL	ALL	5
477078.41	3744302.33	0.38852	455	455	0	ANNUAL	ALL	5
477096.47	3744302.33	0.39849	455	455	0	ANNUAL	ALL	5
477114.53	3744302.33	0.40872	455	455	0	ANNUAL	ALL	5
477132.59	3744302.33	0.4192	455	455	0	ANNUAL	ALL	5
477150.65	3744302.33	0.42995	455	455	0	ANNUAL	ALL	5
477168.71	3744302.33	0.44123	454.84	454.84	0	ANNUAL	ALL	5
477186.77	3744302.33	0.45314	454.52	454.52	0	ANNUAL	ALL	5
477204.83	3744302.33	0.46545	454.23	454.23	0	ANNUAL	ALL	5
477222.89	3744302.33	0.4785	454	454	0	ANNUAL	ALL	5
477240.95	3744302.33	0.49159	454	454	0	ANNUAL	ALL	5
477259.01	3744302.33	0.50514	454	454	0	ANNUAL	ALL	5
477277.07	3744302.33	0.5192	454	454	0	ANNUAL	ALL	5
477295.13	3744302.33	0.53378	454	454	0	ANNUAL	ALL	5
477313.19	3744302.33	0.54894	454	454	0	ANNUAL	ALL	5
477331.25	3744302.33	0.56472	454	454	0	ANNUAL	ALL	5
477349.31	3744302.33	0.58161	453.83	453.83	0	ANNUAL	ALL	5

477367.37	3744302.33	0.59969	453.51	453.51	0	ANNUAL	ALL	5
477385.43	3744302.33	0.6186	453.22	453.22	0	ANNUAL	ALL	5
477403.49	3744302.33	0.63827	453	453	0	ANNUAL	ALL	5
477421.55	3744302.33	0.65826	453	453	0	ANNUAL	ALL	5
477060.35	3744310.86	0.38258	455.32	455.32	0	ANNUAL	ALL	5
477078.41	3744310.86	0.39287	455	455	0	ANNUAL	ALL	5
477096.47	3744310.86	0.40322	455	455	0	ANNUAL	ALL	5
477114.53	3744310.86	0.41383	455	455	0	ANNUAL	ALL	5
477132.59	3744310.86	0.42473	455	455	0	ANNUAL	ALL	5
477150.65	3744310.86	0.43591	455	455	0	ANNUAL	ALL	5
477168.71	3744310.86	0.44775	454.76	454.76	0	ANNUAL	ALL	5
477186.77	3744310.86	0.46044	454.26	454.26	0	ANNUAL	ALL	5
477204.83	3744310.86	0.47304	454.09	454.09	0	ANNUAL	ALL	5
477222.89	3744310.86	0.48611	454	454	0	ANNUAL	ALL	5
477240.95	3744310.86	0.49973	454	454	0	ANNUAL	ALL	5
477259.01	3744310.86	0.51382	454	454	0	ANNUAL	ALL	5
477277.07	3744310.86	0.52842	454	454	0	ANNUAL	ALL	5
477295.13	3744310.86	0.54358	454	454	0	ANNUAL	ALL	5
477313.19	3744310.86	0.55934	454	454	0	ANNUAL	ALL	5
477331.25	3744310.86	0.57575	454	454	0	ANNUAL	ALL	5
477349.31	3744310.86	0.59354	453.74	453.74	0	ANNUAL	ALL	5
477367.37	3744310.86	0.61282	453.25	453.25	0	ANNUAL	ALL	5
477385.43	3744310.86	0.63214	453.09	453.09	0	ANNUAL	ALL	5
477403.49	3744310.86	0.65222	453	453	0	ANNUAL	ALL	5
477421.55	3744310.86	0.67302	453	453	0	ANNUAL	ALL	5
477060.35	3744319.39	0.38656	455.28	455.28	0	ANNUAL	ALL	5
477078.41	3744319.39	0.39719	455	455	0	ANNUAL	ALL	5
477096.47	3744319.39	0.40792	455	455	0	ANNUAL	ALL	5
477114.53	3744319.39	0.41894	455	455	0	ANNUAL	ALL	5
477132.59	3744319.39	0.43027	454.99	454.99	0	ANNUAL	ALL	5
477150.65	3744319.39	0.44198	454.93	454.93	0	ANNUAL	ALL	5
477168.71	3744319.39	0.45438	454.63	454.63	0	ANNUAL	ALL	5
477186.77	3744319.39	0.46763	454.09	454.09	0	ANNUAL	ALL	5
477204.83	3744319.39	0.48015	454	454	0	ANNUAL	ALL	5
477222.89	3744319.39	0.49384	454	454	0	ANNUAL	ALL	5
477240.95	3744319.39	0.508	454	454	0	ANNUAL	ALL	5
477259.01	3744319.39	0.52266	454	454	0	ANNUAL	ALL	5
477277.07	3744319.39	0.53785	454	454	0	ANNUAL	ALL	5
477295.13	3744319.39	0.55361	454	454	0	ANNUAL	ALL	5
477313.19	3744319.39	0.57003	453.99	453.99	0	ANNUAL	ALL	5
477331.25	3744319.39	0.58728	453.92	453.92	0	ANNUAL	ALL	5
477349.31	3744319.39	0.60592	453.61	453.61	0	ANNUAL	ALL	5
477367.37	3744319.39	0.62613	453.07	453.07	0	ANNUAL	ALL	5
477385.43	3744319.39	0.646	453	453	0	ANNUAL	ALL	5
477403.49	3744319.39	0.66663	453	453	0	ANNUAL	ALL	5
477421.55	3744319.39	0.68829	453	453	0	ANNUAL	ALL	5
477060.35	3744327.92	0.39052	455.19	455.19	0	ANNUAL	ALL	5
477078.41	3744327.92	0.40146	455	455	0	ANNUAL	ALL	5
477096.47	3744327.92	0.41259	455	455	0	ANNUAL	ALL	5
477114.53	3744327.92	0.42403	455	455	0	ANNUAL	ALL	5
477132.59	3744327.92	0.43584	454.96	454.96	0	ANNUAL	ALL	5
477150.65	3744327.92	0.44823	454.73	454.73	0	ANNUAL	ALL	5
477168.71	3744327.92	0.46115	454.43	454.43	0	ANNUAL	ALL	5
477186.77	3744327.92	0.47465	454.06	454.06	0	ANNUAL	ALL	5
477204.83	3744327.92	0.48744	454	454	0	ANNUAL	ALL	5
477222.89	3744327.92	0.50168	454	454	0	ANNUAL	ALL	5
477240.95	3744327.92	0.5164	454	454	0	ANNUAL	ALL	5
477259.01	3744327.92	0.53165	454	454	0	ANNUAL	ALL	5
477277.07	3744327.92	0.54746	454	454	0	ANNUAL	ALL	5
477295.13	3744327.92	0.56388	454	454	0	ANNUAL	ALL	5
477313.19	3744327.92	0.58104	453.96	453.96	0	ANNUAL	ALL	5
477331.25	3744327.92	0.59943	453.72	453.72	0	ANNUAL	ALL	5
477349.31	3744327.92	0.61883	453.42	453.42	0	ANNUAL	ALL	5
477367.37	3744327.92	0.6394	453.05	453.05	0	ANNUAL	ALL	5
477385.43	3744327.92	0.66004	453	453	0	ANNUAL	ALL	5
477403.49	3744327.92	0.68152	453	453	0	ANNUAL	ALL	5

477421.55	3744327.92	0.70409	453	453	0	ANNUAL	ALL	5
477060.35	3744336.45	0.39442	455.1	455.1	0	ANNUAL	ALL	5
477078.41	3744336.45	0.40568	455	455	0	ANNUAL	ALL	5
477096.47	3744336.45	0.41721	455	455	0	ANNUAL	ALL	5
477114.53	3744336.45	0.42909	455	455	0	ANNUAL	ALL	5
477132.59	3744336.45	0.44138	454.94	454.94	0	ANNUAL	ALL	5
477150.65	3744336.45	0.45447	454.53	454.53	0	ANNUAL	ALL	5
477168.71	3744336.45	0.46793	454.23	454.23	0	ANNUAL	ALL	5
477186.77	3744336.45	0.48172	454.03	454.03	0	ANNUAL	ALL	5
477204.83	3744336.45	0.49479	454	454	0	ANNUAL	ALL	5
477222.89	3744336.45	0.50961	454	454	0	ANNUAL	ALL	5
477240.95	3744336.45	0.52493	454	454	0	ANNUAL	ALL	5
477259.01	3744336.45	0.54081	454	454	0	ANNUAL	ALL	5
477277.07	3744336.45	0.55727	454	454	0	ANNUAL	ALL	5
477295.13	3744336.45	0.57437	454	454	0	ANNUAL	ALL	5
477313.19	3744336.45	0.59232	453.93	453.93	0	ANNUAL	ALL	5
477331.25	3744336.45	0.61191	453.52	453.52	0	ANNUAL	ALL	5
477349.31	3744336.45	0.63216	453.22	453.22	0	ANNUAL	ALL	5
477367.37	3744336.45	0.65308	453.03	453.03	0	ANNUAL	ALL	5
477385.43	3744336.45	0.67452	453	453	0	ANNUAL	ALL	5
477403.49	3744336.45	0.69691	453	453	0	ANNUAL	ALL	5
477421.55	3744336.45	0.72045	453	453	0	ANNUAL	ALL	5
477060.35	3744344.98	0.39824	455.01	455.01	0	ANNUAL	ALL	5
477078.41	3744344.98	0.40984	455	455	0	ANNUAL	ALL	5
477096.47	3744344.98	0.42179	455	455	0	ANNUAL	ALL	5
477114.53	3744344.98	0.43411	455	455	0	ANNUAL	ALL	5
477132.59	3744344.98	0.4469	454.91	454.91	0	ANNUAL	ALL	5
477150.65	3744344.98	0.4607	454.33	454.33	0	ANNUAL	ALL	5
477168.71	3744344.98	0.47471	454.03	454.03	0	ANNUAL	ALL	5
477186.77	3744344.98	0.48732	454	454	0	ANNUAL	ALL	5
477204.83	3744344.98	0.50221	454	454	0	ANNUAL	ALL	5
477222.89	3744344.98	0.51762	454	454	0	ANNUAL	ALL	5
477240.95	3744344.98	0.53358	454	454	0	ANNUAL	ALL	5
477259.01	3744344.98	0.55012	454	454	0	ANNUAL	ALL	5
477277.07	3744344.98	0.56727	454	454	0	ANNUAL	ALL	5
477295.13	3744344.98	0.58509	454	454	0	ANNUAL	ALL	5
477313.19	3744344.98	0.60389	453.89	453.89	0	ANNUAL	ALL	5
477331.25	3744344.98	0.62474	453.32	453.32	0	ANNUAL	ALL	5
477349.31	3744344.98	0.64585	453.03	453.03	0	ANNUAL	ALL	5
477367.37	3744344.98	0.6672	453	453	0	ANNUAL	ALL	5
477385.43	3744344.98	0.68946	453	453	0	ANNUAL	ALL	5
477403.49	3744344.98	0.71282	453	453	0	ANNUAL	ALL	5
477421.55	3744344.98	0.73738	453	453	0	ANNUAL	ALL	5
477060.35	3744353.51	0.40194	455	455	0	ANNUAL	ALL	5
477078.41	3744353.51	0.41393	455	455	0	ANNUAL	ALL	5
477096.47	3744353.51	0.4263	455	455	0	ANNUAL	ALL	5
477114.53	3744353.51	0.43919	454.88	454.88	0	ANNUAL	ALL	5
477132.59	3744353.51	0.45258	454.69	454.69	0	ANNUAL	ALL	5
477150.65	3744353.51	0.46678	454.23	454.23	0	ANNUAL	ALL	5
477168.71	3744353.51	0.47924	454	454	0	ANNUAL	ALL	5
477186.77	3744353.51	0.49419	454	454	0	ANNUAL	ALL	5
477204.83	3744353.51	0.50968	454	454	0	ANNUAL	ALL	5
477222.89	3744353.51	0.52572	454	454	0	ANNUAL	ALL	5
477240.95	3744353.51	0.54234	454	454	0	ANNUAL	ALL	5
477259.01	3744353.51	0.55957	454	454	0	ANNUAL	ALL	5
477277.07	3744353.51	0.57745	454	454	0	ANNUAL	ALL	5
477295.13	3744353.51	0.59603	454	454	0	ANNUAL	ALL	5
477313.19	3744353.51	0.61563	453.89	453.89	0	ANNUAL	ALL	5
477331.25	3744353.51	0.63743	453.29	453.29	0	ANNUAL	ALL	5
477349.31	3744353.51	0.65946	453	453	0	ANNUAL	ALL	5
477367.37	3744353.51	0.68164	453	453	0	ANNUAL	ALL	5
477385.43	3744353.51	0.70488	453	453	0	ANNUAL	ALL	5
477403.49	3744353.51	0.72927	453	453	0	ANNUAL	ALL	5
477421.55	3744353.51	0.75491	453	453	0	ANNUAL	ALL	5
477060.35	3744362.04	0.40555	455	455	0	ANNUAL	ALL	5
477078.41	3744362.04	0.41794	455	455	0	ANNUAL	ALL	5

477096.47	3744362.04	0.43075	455	455	0	ANNUAL	ALL	5
477114.53	3744362.04	0.44422	454.74	454.74	0	ANNUAL	ALL	5
477132.59	3744362.04	0.45826	454.43	454.43	0	ANNUAL	ALL	5
477150.65	3744362.04	0.47281	454.14	454.14	0	ANNUAL	ALL	5
477168.71	3744362.04	0.48555	454	454	0	ANNUAL	ALL	5
477186.77	3744362.04	0.50109	454	454	0	ANNUAL	ALL	5
477204.83	3744362.04	0.51719	454	454	0	ANNUAL	ALL	5
477222.89	3744362.04	0.53389	454	454	0	ANNUAL	ALL	5
477240.95	3744362.04	0.5512	454	454	0	ANNUAL	ALL	5
477259.01	3744362.04	0.56916	454	454	0	ANNUAL	ALL	5
477277.07	3744362.04	0.58781	454	454	0	ANNUAL	ALL	5
477295.13	3744362.04	0.60719	454	454	0	ANNUAL	ALL	5
477313.19	3744362.04	0.62764	453.89	453.89	0	ANNUAL	ALL	5
477331.25	3744362.04	0.65037	453.29	453.29	0	ANNUAL	ALL	5
477349.31	3744362.04	0.67335	453	453	0	ANNUAL	ALL	5
477367.37	3744362.04	0.69652	453	453	0	ANNUAL	ALL	5
477385.43	3744362.04	0.72078	453	453	0	ANNUAL	ALL	5
477403.49	3744362.04	0.74626	453	453	0	ANNUAL	ALL	5
477421.55	3744362.04	0.77306	453	453	0	ANNUAL	ALL	5
477060.35	3744370.57	0.40907	455	455	0	ANNUAL	ALL	5
477078.41	3744370.57	0.42186	455	455	0	ANNUAL	ALL	5
477096.47	3744370.57	0.43511	455	455	0	ANNUAL	ALL	5
477114.53	3744370.57	0.44918	454.6	454.6	0	ANNUAL	ALL	5
477132.59	3744370.57	0.46386	454.17	454.17	0	ANNUAL	ALL	5
477150.65	3744370.57	0.47879	454.06	454.06	0	ANNUAL	ALL	5
477168.71	3744370.57	0.49185	454	454	0	ANNUAL	ALL	5
477186.77	3744370.57	0.50799	454	454	0	ANNUAL	ALL	5
477204.83	3744370.57	0.52474	454	454	0	ANNUAL	ALL	5
477222.89	3744370.57	0.54212	454	454	0	ANNUAL	ALL	5
477240.95	3744370.57	0.56015	454	454	0	ANNUAL	ALL	5
477259.01	3744370.57	0.57887	454	454	0	ANNUAL	ALL	5
477277.07	3744370.57	0.59833	454	454	0	ANNUAL	ALL	5
477295.13	3744370.57	0.61856	454	454	0	ANNUAL	ALL	5
477313.19	3744370.57	0.63992	453.89	453.89	0	ANNUAL	ALL	5
477331.25	3744370.57	0.66362	453.29	453.29	0	ANNUAL	ALL	5
477349.31	3744370.57	0.68761	453	453	0	ANNUAL	ALL	5
477367.37	3744370.57	0.71182	453	453	0	ANNUAL	ALL	5
477385.43	3744370.57	0.73719	453	453	0	ANNUAL	ALL	5
477403.49	3744370.57	0.76382	453	453	0	ANNUAL	ALL	5
477421.55	3744370.57	0.79185	453	453	0	ANNUAL	ALL	5
477060.35	3744379.10	0.4125	455	455	0	ANNUAL	ALL	5
477078.41	3744379.10	0.42571	454.97	454.97	0	ANNUAL	ALL	5
477096.47	3744379.10	0.43946	454.91	454.91	0	ANNUAL	ALL	5
477114.53	3744379.10	0.45405	454.46	454.46	0	ANNUAL	ALL	5
477132.59	3744379.10	0.46646	454	454	0	ANNUAL	ALL	5
477150.65	3744379.10	0.48198	454	454	0	ANNUAL	ALL	5
477168.71	3744379.10	0.49811	454	454	0	ANNUAL	ALL	5
477186.77	3744379.10	0.51488	454	454	0	ANNUAL	ALL	5
477204.83	3744379.10	0.5323	454	454	0	ANNUAL	ALL	5
477222.89	3744379.10	0.55039	454	454	0	ANNUAL	ALL	5
477240.95	3744379.10	0.56918	454	454	0	ANNUAL	ALL	5
477259.01	3744379.10	0.58871	454	454	0	ANNUAL	ALL	5
477277.07	3744379.10	0.60902	454	454	0	ANNUAL	ALL	5
477295.13	3744379.10	0.63026	453.95	453.95	0	ANNUAL	ALL	5
477313.19	3744379.10	0.65268	453.8	453.8	0	ANNUAL	ALL	5
477331.25	3744379.10	0.67727	453.26	453.26	0	ANNUAL	ALL	5
477349.31	3744379.10	0.70224	453	453	0	ANNUAL	ALL	5
477367.37	3744379.10	0.72756	453	453	0	ANNUAL	ALL	5
477385.43	3744379.10	0.7541	453	453	0	ANNUAL	ALL	5
477403.49	3744379.10	0.78201	452.99	452.99	0	ANNUAL	ALL	5
477421.55	3744379.10	0.81161	452.93	452.93	0	ANNUAL	ALL	5

** CONCUNIT ug/m^3

** DEPUNIT g/m^2

Operational DPM

Perris Ramona Expressway Warehouse **DPM**

Emission Assumptions

Emission Factors

1) Truck and Auto Exhaust and Idling Emissions

(1) EMFAC2017		
(a) Calculations for	Riverside County	
(b) Truck Mix	Fleet Mix estimated based on traffic report	
(c) Truck Idle Time:	15	minutes (truck idling only applies to HDT vehicles)
(d) Onsite Vehicle Travel Speed	10	mph for trucks
(e) Offsite Vehicle Travel Speed	25	mph for trucks

Traffic Allocation

1) Traffic distributed by driveway in accordance with information provided by the traffic report
2) Trip generation by traffic report
3) Onsite travel emissions generated from diesel vehicles
4) Onsite idling emissions generated only by trucks

Emission Source Configuration

1) Project onsite truck traffic represented by a line source
2) Project onsite passenger car traffic represented as a line source
2) Project onsite truck idling represented as line sources
3) Offsite vehicles represented by a line source

Other Input Parameters

Facility Operations (hr/day): 24

Perris Ramona Expressway Warehouse

Diesel Vehicle Emissions

Facility Operations

24 hrs/day, 52 weeks/year

Roadway Links Modeled

Link	Truck Type	Average Speed (mph)	Emission Factor (g/mi)	Trips per Daily (in and out)	Link Length (m)	Link Length (mi)	Ave Emissions Over Link (g/day)	Ave Emissions (lbs/day)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
Onsite	**LHDT1**	10	0.090	14	535.1	0.33	4.223E-01	9.30E-04	4.887E-06	
	LHDT2	10	0.081	4	535.1	0.33	1.055E-01	2.32E-04	1.221E-06	
	MHDT	10	0.039	22	535.1	0.33	2.878E-01	6.34E-04	3.331E-06	
	HHDT	10	0.012	62	535.1	0.33	2.374E-01	5.23E-04	2.747E-06	**1.22E-05**

Diesel Vehicle Emissions

Diesel truck Idling Emissions **DPM**

Onsite Vehicle Travel Segments	Truck Type	Emission Factor (grams/trip)	Idling Time (min)	Number Idling Vehicle Trips/day	Emissions (g/day)	Emissions (lb/day)	Average Emissions (g/sec)	Total Emissions for all Vehicles (g/sec)
SLINE6	**LHDT1**	0.001	15	14.1	1.36E-02	3.02E-04	1.57E-07	
	LHDT2	0.001	15	3.9	5.00E-03	1.10E-05	5.79E-08	
	MHDT	0.000	15	22.0	8.49E-03	1.87E-05	9.83E-08	
	HHDT	0.010	15	62.0	6.06E-01	1.34E-03	7.02E-06	**7.33E-06**

Perris Ramona Expressway Warehouse

Project Operations 24 hours/day

Offsite DSL Truck Roadway Emissions

Segment ID	Description	% total Trips
SLINE1	Outgoing trips via I-215 (North or southbound)	16.7%
SLINE2	Incoming via I-215 (North and Southbound)	50.0%
SLINE3	Outgoing to Indian Avenue (South or Northbound)	16.7%
SLINE4	Outgoing via Ramona Expressway	16.7%
	Total	100.0%

Segment ID: SLINE1
Travel Distance: 2089 meters
Operations 24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	14	0.0023	1.30	0.04	4.92E-07
LHDT2-DSL	4	0.0018	1.30	0.01	1.08E-07
MHDT-DSL	22	0.0016	1.30	0.04	5.14E-07
HHDT-DSL	62	0.0026	1.30	0.21	2.40E-06
Total	102				**3.51E-06**

Segment ID: SLINE2
Travel Distance: 831.9 meters
Operations 24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	14	0.002	0.52	0.02	1.96E-07
LHDT2-DSL	4	0.002	0.52	0.00	4.29E-08
MHDT-DSL	22	0.002	0.52	0.02	2.05E-07
HHDT-DSL	62	0.003	0.52	0.08	9.55E-07
Total	102				**1.40E-06**

Segment ID: SLINE3
Travel Distance: 689.8 meters
Operations 24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	24	0.002	0.43	0.02	2.77E-07
LHDT2-DSL	4	0.002	0.43	0.00	3.55E-08
MHDT-DSL	22	0.002	0.43	0.01	1.70E-07
HHDT-DSL	62	0.003	0.43	0.07	7.92E-07
Total	102				**1.27E-06**

Segment ID: SLINE4
Travel Distance: 788.3 meters
Operations 24 hours/day

Vehicle Class	Daily Trips (trips/day)	Emission Factor (g/mi)	Travel Distance (mi)	Emissions (g/day)	Emissions (g/sec)
LHDT1-DSL	24	0.002	0.49	0.03	3.16E-07
LHDT2-DSL	4	0.002	0.49	0.00	4.06E-08
MHDT-DSL	22	0.002	0.49	0.02	1.94E-07
HHDT-DSL	62	0.003	0.49	0.08	9.05E-07
Total	102				**1.46E-06**

Perris Ramona Expressway Warehouse Project Operations
DPM 2023

EMFAC2021 (v1.0.2) Emission Rates Running Diesel Exhaust Emissions
in units of grams/mile

		Emission Factor (g/mi)			
		10 mph	**15 mph**	**25 mph**	**35 mph**
LHDT1	DSL	0.0901	0.0742	0.0492	0.0344
LHDT2	DSL	0.0814	0.0677	0.0463	0.0322
MHDT	DSL	0.0394	0.0254	0.0128	0.0093
HHDT	DSL	0.0115	0.0090	0.0068	0.0084

Idling Emissions
in units of grams/trip

Vehicle Class	Fuel	Vehicle Speed (mph)	DPM (grams/trip)	5 mph (g/mi)
LHDT1	DSL	Idle	0.0010	0.1067
LHDT2	DSL	Idle	0.0013	0.0976
MHDT	DSL	Idle	0.0004	0.049991
HHDT	DSL	Idle	0.0098	0.0132

Appendix C: Energy Consumption Calculations

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix C: Energy Consumption Calculations

Table of Contents

City of Perris–Ramona Expressway and Brennan Warehouse—Energy Consumption Summary

Summary of Energy Use During Construction

Construction vehicle fuel	20,755	gallons (gasoline, diesel)
Construction equipment fuel	35,446	gallons (diesel)
Construction office trailer electricity	10,391	kilowatt hours

Summary of Energy Use During Proposed Operations (Annually)

Operational vehicle fuel consumption	262,686	gallons (gasoline, diesel)
Operational natural gas consumption	2,512,296	kilo-British Thermal Units
Operational electricity consumption	825,300	kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed June 16, 2022.

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Consumption (1000 gallons/day)	*Calculations* FE (mi/gallon)	VMT*FE
HHDT	Aggregated	Aggregated	GAS	11.42454799	458.21837	0.125747584	3.64395367	1669.7265
HHDT	Aggregated	Aggregated	DSL	13751.9324	1821166.36	304.317828	5.98442217	10898628
LDA	Aggregated	Aggregated	GAS	469106.663	20217338.5	706.3916548	28.6205794	578631942
LDA	Aggregated	Aggregated	DSL	1645.331877	62796.766	1.483738347	42.3233423	2657769
LDT1	Aggregated	Aggregated	GAS	42577.26051	1556974.62	65.66875208	23.7095204	36915121
LDT1	Aggregated	Aggregated	DSL	22.66505064	433.968834	0.017714139	24.4984433	10631.561
LDT2	Aggregated	Aggregated	GAS	186359.6597	8085465.82	350.5226542	23.0668852	186506512
LDT2	Aggregated	Aggregated	DSL	536.9614305	25316.856	0.80312771	31.5228272	798058.88
LHDT1	Aggregated	Aggregated	GAS	18257.69575	650381.344	50.75793443	12.8133926	8333591.5
LHDT1	Aggregated	Aggregated	DSL	15508.19348	570489.596	27.95206269	20.4095706	11643448
LHDT2	Aggregated	Aggregated	GAS	2548.790064	90522.0471	7.78416439	11.6289999	1052680.9
LHDT2	Aggregated	Aggregated	DSL	6832.784248	256042.825	15.15783816	16.8917772	4325018.4
MHDT	Aggregated	Aggregated	GAS	1281.144453	49562.9201	9.791083443	5.06204655	250889.81
MHDT	Aggregated	Aggregated	DSL	12485.91221	546624.26	61.24385809	8.92537272	4878825.3

Worker	
Sum of VMT*FE (Column BI)	**805520035**
Total VMT	**29948327**
Weighted Average FE	**26.896997**

Vendor	
Sum of VMT*FE (Column BI)	**41384752**
Total VMT	**3985247.6**
Weighted Average FE	**10.384487**

Haul	
Sum of VMT*FE (Column BI)	**10900298**
Total VMT	**1821624.6**
Weighted Average FE	**5.9838334**

Construction Parameters

Source: AQ/GHG Appendix, CalEEMod Output
Perris Ramona Expressway Warehouse Main Site, Perris Ramona Expressway Warehouse Frontage Improvement
Date: 6/10/2022

Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Construction					
Demolition	Demolition	9/1/2022	9/28/2022	5	20
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5	10
Grading	Grading	10/13/2022	11/9/2022	5	20
Building Construction	Building Construction	11/10/2022	6/30/2023	5	167
Paving	Paving	6/1/2022	6/28/2023	5	20
Architectural Coating	Architectural Coating	6/1/2023	6/28/2023	5	20
Frontage Construction					
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5	10
Grading	Grading	10/13/2022	11/9/2022	5	20
Paving	Paving	11/10/2022	12/7/2022	5	20
Architectural Coating	Architectural Coating	12/8/2022	1/4/2023	5	20

Construction Trips and VMT

	Trips per Day			Construction Trip Length in Miles			Number of	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Main Site Construction																
Demolition	15	0	64	18.5	10.2	20	20	300	0	1,280	5,550	0	25,600	206.34	0.00	4,278.19
Site Preparation	18	0	83	18.5	10.2	20	10	180	0	830	3,330	0	16,600	123.81	0.00	2,774.14
Grading	15	0	0	18.5	10.2	20	20	300	0	0	5,550	0	0	206.34	0.00	0.00
Building Construction	69	27	0	18.5	10.2	20	167	11,523	4,509	0	213,176	45,992	0	7,925.62	4,428.89	0.00
Paving	15	0	0	18.5	10.2	20	20	300	0	0	5,550	0	0	206.34	0.00	0.00
Architectural Coating	14	0	0	18.5	10.2	20	20	280	0	0	5,180	0	0	192.59	0.00	0.00
Frontage Construction																
Site Preparation	8	0	0	18.5	10.2	20	10	80	0	0	1,480	0	0	55.02	0.00	0.00
Grading	13	0	0	18.5	10.2	20	20	260	0	0	4,810	0	0	178.83	0.00	0.00
Paving	13	0	0	18.5	10.2	20	20	260	0	0	4,810	0	0	178.83	0.00	0.00
Architectural Coating	0	0	0	18.5	10.2	20	20	0	0	0	0	0	0	0.00	0.00	0.00

Total Project Construction VMT (miles)
337,627

Total Project Fuel Consumption (gallons)
20,755

Construction Equipment Fuel Calculation
Source: AQ/GHG Appendix, CalEEMod Output
Perris Ramona Expressway Warehouse Main Site, Perris Ramona Expressway Warehouse Frontage Improvement
Date: 6/10/2022

Construction Schedule

CalEEMod Run	Phase Type	Start Date	End Date	Num Days Week	Num Days
Main Site Construction					
Demolition	Demolition	9/1/2022	9/28/2022	5	20
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5	10
Grading	Grading	10/13/2022	11/9/2022	5	20
Building Construction	Building Construction	11/10/2022	6/30/2023	5	167
Paving	Paving	6/1/2022	6/28/2023	5	20
Architectural Coating	Architectural Coating	6/1/2023	6/28/2023	5	20
Frontage Construction					
Site Preparation	Site Preparation	9/29/2022	10/12/2022	5	10
Grading	Grading	10/13/2022	11/9/2022	5	20
Paving	Paving	11/10/2022	12/7/2022	5	20
Architectural Coating	Architectural Coating	12/8/2022	1/4/2023	5	20

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
Main Site Construction								
Demolition	Concrete/Industrial Saws	1	8	33	0.73	20	3854.4	192.72
Demolition	Excavators	3	8	36	0.38	20	6566.4	328.32
Demolition	Rubber Tired Dozers	2	8	367	0.4	20	46976	2,348.80
Site Preparation	Rubber Tired Dozers	3	8	367	0.4	10	35232	1,761.60
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37	10	9945.6	497.28
Grading	Excavators	1	8	36	0.38	20	2188.8	109.44
Grading	Graders	1	8	148	0.41	20	9708.8	485.44
Grading	Rubber Tired Dozers	1	8	367	0.4	20	23488	1,174.40
Grading	Tractors/Loaders/Backhoes	3	8	84	0.37	20	14918.4	745.92
Building Construction	Cranes	1	9.2	367	0.29	167	163519.052	8,175.95
Building Construction	Forklifts	4	7.9	82	0.2	167	86546.08	4,327.30
Building Construction	Generator Sets	1	10.5	14	0.74	167	18166.26	908.31
Building Construction	Tractors/Loaders/Backhoes	3	9.2	84	0.37	167	143253.936	7,162.70
Building Construction	Welders	1	10.5	46	0.45	167	36297.45	1,814.87
Paving	Pavers	2	8	81	0.42	20	10886.4	544.32
Paving	Paving Equipment	2	8	89	0.36	20	10252.8	512.64
Paving	Rollers	2	8	36	0.38	20	4377.6	218.88
Architectural Coating	Air Compressors	1	6	37	0.48	20	2131.2	106.56
Frontage Construction								
Site Preparation	Rubber Tired Dozers	1	7	367	0.4	10	10276	513.80
Site Preparation	Tractors/Loaders/Backhoes	1	8	84	0.37	10	2486.4	124.32
Site Preparation	Graders	1	8	148	0.41	10	4854.4	242.72
Grading	Excavators	1	8	36	0.38	20	2188.8	109.44
Grading	Graders	1	8	148	0.41	20	9708.8	485.44
Grading	Rubber Tired Dozers	1	8	367	0.4	20	23488	1,174.40
Grading	Tractors/Loaders/Backhoes	2	7	84	0.37	20	8702.4	435.12
Paving	Pavers	1	6	81	0.42	20	4082.4	204.12
Paving	Paving Equipment	1	8	89	0.36	20	5126.4	256.32
Paving	Rollers	1	7	36	0.38	20	1915.2	95.76
Paving	Cement and Mortar Mixers	1	6	10	0.56	20	672	33.60
Paving	Tractors/Loaders/Backhoes	1	8	84	0.37	20	4972.8	248.64
Architectural Coating	Air Compressors	1	6	37	0.48	20	2131.2	106.56

Total Construction Equipment Fuel Consumption (gallons) 35,445.70

<u>Construction Office Electricity Calculation</u>

Source: AQ/GHG Appendix, CalEEMod Output
Perris Ramona Expressway Warehouse Construction Trailer
Date: 6/17/2022

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity		
Annual	12,559	kWh/yr
Total Over Construction	**10,391**	**kWh**

Total Construction Schedule		
Start	9/1/2022	
End	6/30/2023	
Total Calendar Days		302
Years		0.83

Project Operational Fuel Calculation

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed June 16,

EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Riverside (SC)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given							*Calculations*	
VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
HHDT	Aggregated	Aggregated	GAS	9.455104489	402.0155083	0.108573531	3.702702729	1488.54392
HHDT	Aggregated	Aggregated	DSL	14188.53655	1870417.715	309.6254593	6.040904126	11299014.09
LDA	Aggregated	Aggregated	GAS	469124.6474	20366451.54	699.7310812	29.10611246	592788229
LDA	Aggregated	Aggregated	DSL	1558.762895	58561.51523	1.375784729	42.56590004	2492723.604
LDT1	Aggregated	Aggregated	GAS	41569.09002	1542689.764	63.99950114	24.10471546	37186097.81
LDT1	Aggregated	Aggregated	DSL	20.22700504	383.6181372	0.015644241	24.52136422	9406.840065
LDT2	Aggregated	Aggregated	GAS	191587.7811	8435118.12	356.5641957	23.65666049	199546725.5
LDT2	Aggregated	Aggregated	DSL	577.8339592	27328.90025	0.849494989	32.17076099	879191.5182
LHDT1	Aggregated	Aggregated	GAS	18052.34987	656605.5887	49.73832228	13.20120098	8667982.339
LHDT1	Aggregated	Aggregated	DSL	15395.69696	567535.3588	27.67934868	20.5039275	11636703.85
LHDT2	Aggregated	Aggregated	GAS	2523.570585	90490.65997	7.611904144	11.88804513	1075757.049
LHDT2	Aggregated	Aggregated	DSL	6852.470307	256221.1459	15.0673302	17.00507937	4357060.922
MCY	Aggregated	Aggregated	GAS	24170.7213	141523.0693	3.403298812	41.58408567	5885107.44
MDV	Aggregated	Aggregated	GAS	159138.1322	6456725.347	338.8355886	19.05562923	123036964.2
MDV	Aggregated	Aggregated	DSL	2483.005938	104140.6313	4.4577137	23.36189317	2432922.302
MH	Aggregated	Aggregated	GAS	5083.841078	44617.33224	9.135457245	4.883973625	217909.8738
MH	Aggregated	Aggregated	DSL	2073.70666	18018.02681	1.738318002	10.36520751	186760.5868
MHDT	Aggregated	Aggregated	GAS	1260.142241	50001.99826	9.730848023	5.138503668	256935.4515
MHDT	Aggregated	Aggregated	DSL	12683.243	556347.8969	62.32189585	8.927005337	4966520.645
OBUS	Aggregated	Aggregated	GAS	386.6813181	13386.35665	2.645844907	5.059388256	67726.77563
OBUS	Aggregated	Aggregated	DSL	215.667787	15076.44179	1.951877039	7.724073542	116451.5451
SBUS	Aggregated	Aggregated	GAS	421.1646074	16563.24745	1.897862822	8.727315411	144552.6847
SBUS	Aggregated	Aggregated	DSL	499.0687276	10519.58678	1.437331357	7.318832037	76991.08874
UBUS	Aggregated	Aggregated	GAS	145.9294435	18476.36382	3.28009086	5.63288171	104075.1718
UBUS	Aggregated	Aggregated	DSL	0.3117338	30.10971099	0.002674589	11.25769704	338.9660041

Trucks	**Sum of VMT*FE**	**42261462.89**
	Total VMT	**4048022.379**
	Weighted Average FE (miles/gallon)	**10.4400**
Passenger Cars	**Sum of VMT*FE**	**958372260.9**
	Total VMT	**36991399.44**
	Weighted Average FE (miles/gallon)	**25.9080**

Total VMT
Perris Ramona Expressway Warehouse Main Site
Date: 6/10/2022

5.9. Operational Mobile Sources

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	103	103	103	37,463	6,748	6,748	6,748	2,463,020
General Office Building	184	184	184	67,160	1,900	1,900	1,900	693,427
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Annual VMT (miles)	Fuel Consumption	
Truck VMT	2,463,020	**235,921**	**gallons per year**
Passenger Car VMT	693,427	**26,765**	**gallons per year**
Total	3,156,447	**262,686**	**gallons per year**

Project Operations Natural Gas Use

Source: AQ/GHG Appendix, CalEEMod Output
Perris Ramona Expressway Warehouse Main Site
Date: 6/10/2022

kBTU/yr = kilo-British Thermal Units/year

Land Use	Natural Gas Use (kBTU/yr)	
Unrefrigerated Warehouse-No Rail	2,352,181	
General Office Building	160,115	
Parking Lot	0	
Total	**2,512,296**	**kBTU/yr**

<u>Project Operations Electricity Use</u>

Source: AQ/GHG Appendix, CalEEMod Output
Perris Ramona Expressway Warehouse Main Site
Date: 6/10/2022

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
Unrefrigerated Warehouse-No Rail	738084
General Office Building	87216
Parking Lot	0

Land Use	Electricity (kWh/yr)
Unrefrigerated Warehouse-No Rail	738,084
General Office Building	87,216
Parking Lot	0.00

Total **825,300** **kWh/yr**

Perris Ramona Expressway Warehouse Construction Trailer Custom Report

Table of Contents

5.11. Operational Energy Consumption

5.11.2. Mitigated

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Perris Ramona Expressway Warehouse Construction Trailer
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	9.00
Location	33.844601, -117.24074
County	Riverside-South Coast
City	Perris
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5580
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
General Office Building	0.72	1000sqft	0.02	720	0.00	—	—	Construction Trailer

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures

2. Emissions Summary

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	0.09	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	78.4	78.4	< 0.005	< 0.005	0.36	79.9
Area	0.01	0.02	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.13	0.13	< 0.005	< 0.005	—	0.13
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.10	0.11	0.05	0.39	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	0.61	98.8	99.4	0.07	< 0.005	0.36	103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.08	0.05	0.29	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	73.6	73.6	< 0.005	< 0.005	0.01	74.8
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

Total	0.09	0.10	0.05	0.30	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	0.61	93.8	94.4	0.07	< 0.005	0.01	97.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.06	0.03	0.23	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	56.2	56.2	< 0.005	< 0.005	0.12	57.2
Area	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.07	0.08	0.04	0.26	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	0.61	76.5	77.2	0.07	< 0.005	0.12	80.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.31	9.31	< 0.005	< 0.005	0.02	9.48
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.21	3.21	< 0.005	< 0.005	—	3.22
Water	—	—	—	—	—	—	—	—	—	—	—	0.04	0.14	0.18	< 0.005	< 0.005	—	0.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.06	0.00	0.06	0.01	0.00	—	0.21
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.01	0.02	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	12.7	12.8	0.01	< 0.005	0.02	13.2

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	0.09	0.09	0.04	0.35	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	78.4	78.4	< 0.005	< 0.005	0.36	79.9
Area	0.01	0.02	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.13	0.13	< 0.005	< 0.005	—	0.13
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5

Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.10	0.11	0.05	0.39	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	0.61	98.8	99.4	0.07	< 0.005	0.36	103
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.09	0.08	0.05	0.29	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	73.6	73.6	< 0.005	< 0.005	0.01	74.8
Area	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.09	0.10	0.05	0.30	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	0.61	93.8	94.4	0.07	< 0.005	0.01	97.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.06	0.03	0.23	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	56.2	56.2	< 0.005	< 0.005	0.12	57.2
Area	< 0.005	0.02	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.4	19.4	< 0.005	< 0.005	—	19.5
Water	—	—	—	—	—	—	—	—	—	—	—	0.25	0.83	1.08	0.03	< 0.005	—	1.89
Waste	—	—	—	—	—	—	—	—	—	—	—	0.36	0.00	0.36	0.04	0.00	—	1.26
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.07	0.08	0.04	0.26	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	0.61	76.5	77.2	0.07	< 0.005	0.12	80.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.01	0.01	0.01	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.31	9.31	< 0.005	< 0.005	0.02	9.48
Area	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.21	3.21	< 0.005	< 0.005	—	3.22
Water	—	—	—	—	—	—	—	—	—	—	—	0.04	0.14	0.18	< 0.005	< 0.005	—	0.31
Waste	—	—	—	—	—	—	—	—	—	—	—	0.06	0.00	0.06	0.01	0.00	—	0.21

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	0.01	0.02	0.01	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10	12.7	12.8	0.01	< 0.005	0.02	13.2

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.09	0.09	0.04	0.35	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	78.4	78.4	< 0.005	< 0.005	0.36	79.9
Total	0.09	0.09	0.04	0.35	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	78.4	78.4	< 0.005	< 0.005	0.36	79.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.09	0.08	0.05	0.29	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	73.6	73.6	< 0.005	< 0.005	0.01	74.8
Total	0.09	0.08	0.05	0.29	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	73.6	73.6	< 0.005	< 0.005	0.01	74.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01	0.01	0.01	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.31	9.31	< 0.005	< 0.005	0.02	9.48
Total	0.01	0.01	0.01	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.31	9.31	< 0.005	< 0.005	0.02	9.48

4.2. Energy

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	1.99	1.99	< 0.005	< 0.005	—	2.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1.99	1.99	< 0.005	< 0.005	—	2.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.39	7.39	< 0.005	< 0.005	—	7.41
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.39	7.39	< 0.005	< 0.005	—	7.41
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.39	7.39	< 0.005	< 0.005	—	7.41
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.39	7.39	< 0.005	< 0.005	—	7.41
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.23
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.23

5. Activity Data

5.11. Operational Energy Consumption

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)
General Office Building	12,559	349	0.0330	0.0040	23,057