Chula Vista Nirvana Business Park

Air Quality/Greenhouse Gas/Health Risk Assessment Impact Study

821 Main Street, City of Chula Vista, CA

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GLOSSARY OF TERMS

CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH_4	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
GHG	Greenhouse gas
HFCs	Hydrofluorocarbons
$MTCO_2e$	Metric tons of carbon dioxide equivalent
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NOx	Nitrogen Oxides
NO_2	Nitrogen dioxide
N_2O	Nitrous oxide
O_3	Ozone
PFCs	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RAQS	San Diego Regional Air Quality Strategy
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SF_6	Sulfur hexafluoride
SIP	State Implementation Plan
SOx	Sulfur Oxides
SRA	Source/Receptor Area
TAC	Toxic air contaminants
VOC	Volatile organic compounds
WRCC	Western Regional Climate Center

1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This air quality/greenhouse gas (GHG)/health risk assessment (HRA) analysis was prepared to evaluate whether the estimated criteria pollutants, GHG emissions, and toxic air contaminant generated from the project would cause a significant impact to the air resources in the project area. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The assessment is consistent with the methodology and emission factors endorsed by San Diego Air Pollution control district (SDAPCD), California Air Resource Board (CARB), and the United States Environmental Protection Agency (US EPA).

1.2 Project Summary

1.2.1 Site Location

The project site is located at 821 Main Street between Nirvana Avenue and Heritage Road in the City of Chula Vista, San Diego County, California as shown in Exhibit A. The site is currently designated Limited Industrial (IL) according to the City of Chula Vista General Plan Land Use Diagram and the proposed use is industrial. Land uses surrounding the site include vacant land to the east, parking and industrial lots to the north, a powder coating facility to the west, and Main Street to the south with open space further south. An industrial lot to the north (APN 644-182-10) will be used by the Project to stockpile Project soil during grading operations.

1.2.2 Project Description

The approximately 13.31-acre project site is proposed to be developed with three warehouse buildings totaling 158,416 square feet and one three-story self-storage building totaling 140,802 square feet as well as 309 parking spaces and 150,532 square feet of landscaping. Exhibit B demonstrates the site plan for the project.

Construction activities within the Project area will consist of site preparation with approximately 120 cubic yards of man-made debris to be removed, on-site grading, building, paving, and architectural coating. Table 1 summarizes the land use description for the Project Site.

Table 1: Land Use Summary

Land Use	Unit Amount	Size Metric
Unrefrigerated Warehouse - No Rail	299.22	TSF
Parking Lot	309	Space

[1] TSF=thousand square foot

1.2.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution than others due to their exposure. As identified by the California Air Resources Board (CARB), sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. For CEQA purposes, a sensitive receptor would be a location where a sensitive individual could remain for 24-hours or longer, such as residencies, hospitals, and schools (etc.).

The closest existing sensitive receptors (to the site area) are the single-family residential land uses located approximately 1,425 feet (~435 meters) northeast and 1,430 feet (~436 meters) southwest of the project site.

1.3 Executive Summary of Findings and Mitigation Measures

The following is a summary of the analysis results:

Construction-Source Emissions
Project construction-source emissions would not exceed the City of Chula Vista's significance thresholds for criteria pollutants.

Project construction-source emissions would not conflict with the San Diego Regional Air Quality Strategy (RAQS). As discussed herein, the project will comply with all applicable SDAPCD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS).

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less-than-significant.

Operational-Source Emissions
Operational-sourced emissions would not exceed the City of Chula Vista's significance thresholds; therefore, impacts during project operation would be less than significant. Project-related traffic will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO "hotspots). Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

The project operational-source emissions will not exceed the City of Chula Vista's significance thresholds and will not conflict with the RAQS. The project does not propose any such uses or activities that would result in potentially significant operational-source odor impacts. Potential operational-source odor impacts are therefore considered less-than significant. The project greenhouse gas emissions would be less than the 10,000 MT CO2e per year screening level threshold and would not conflict with the goals

of SB-32, the CARB Scoping Plan, the City of Chula Vista Climate Action Plan; or the SANDAG Regional Plan; therefore, the project would not generate significant GHG emissions and would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts are considered to be less than significant.

The qualitative health risk assessment analysis showed that significant TAC impacts from the project-related operational DPM sources are not anticipated and no significant long-term operations-related TAC impacts from the proposed project to nearby sensitive receptors would occur. Impacts are considered less than significant.

Mitigation Measures

A. Construction Measures

Adherence to SDAPCD Rules 52, 54, and 55 is required.

No construction mitigation required.

B. Operational Measures to Reduce Emissions

No operational mitigation required.

Exhibit A

Location Map

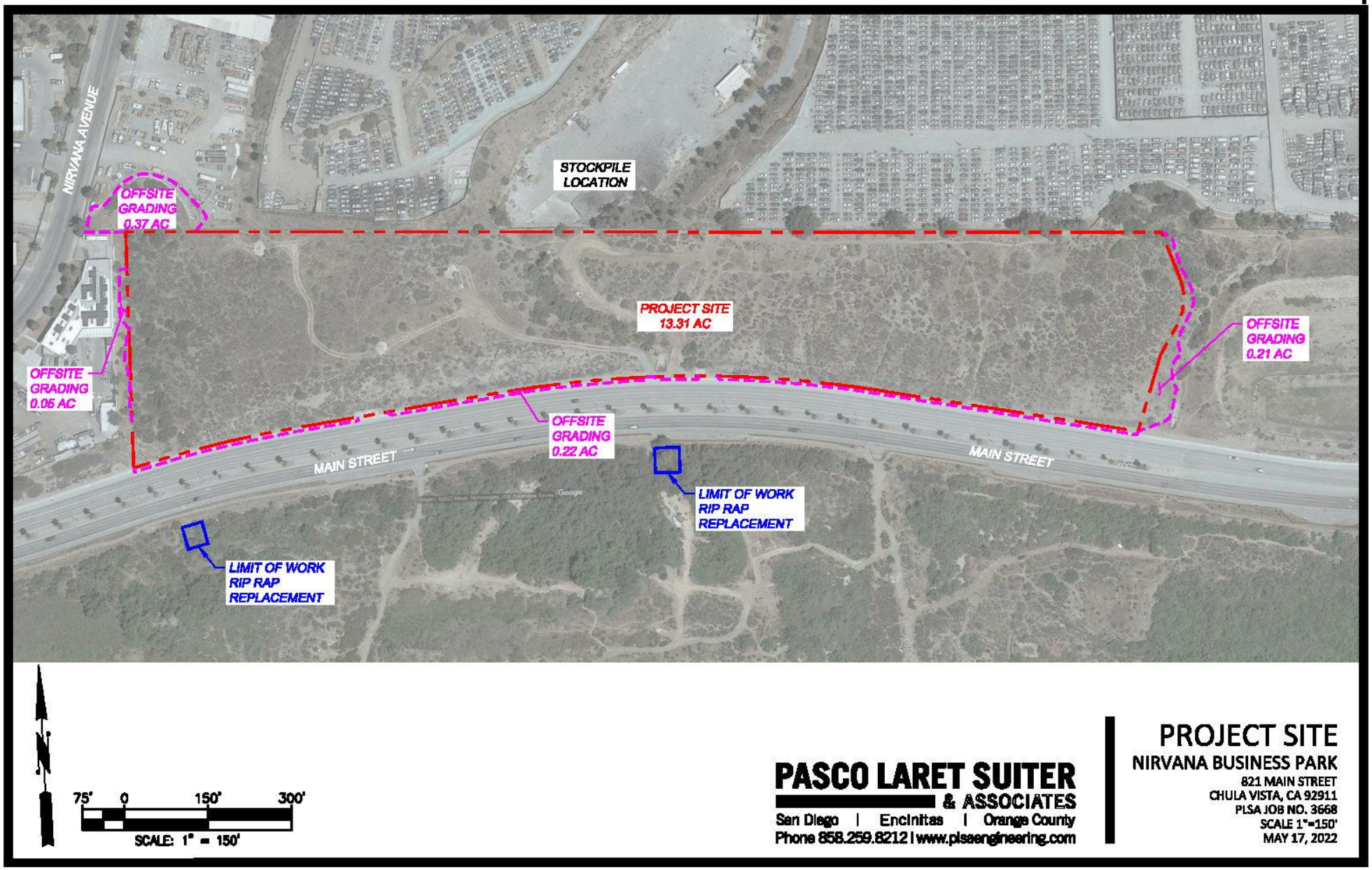
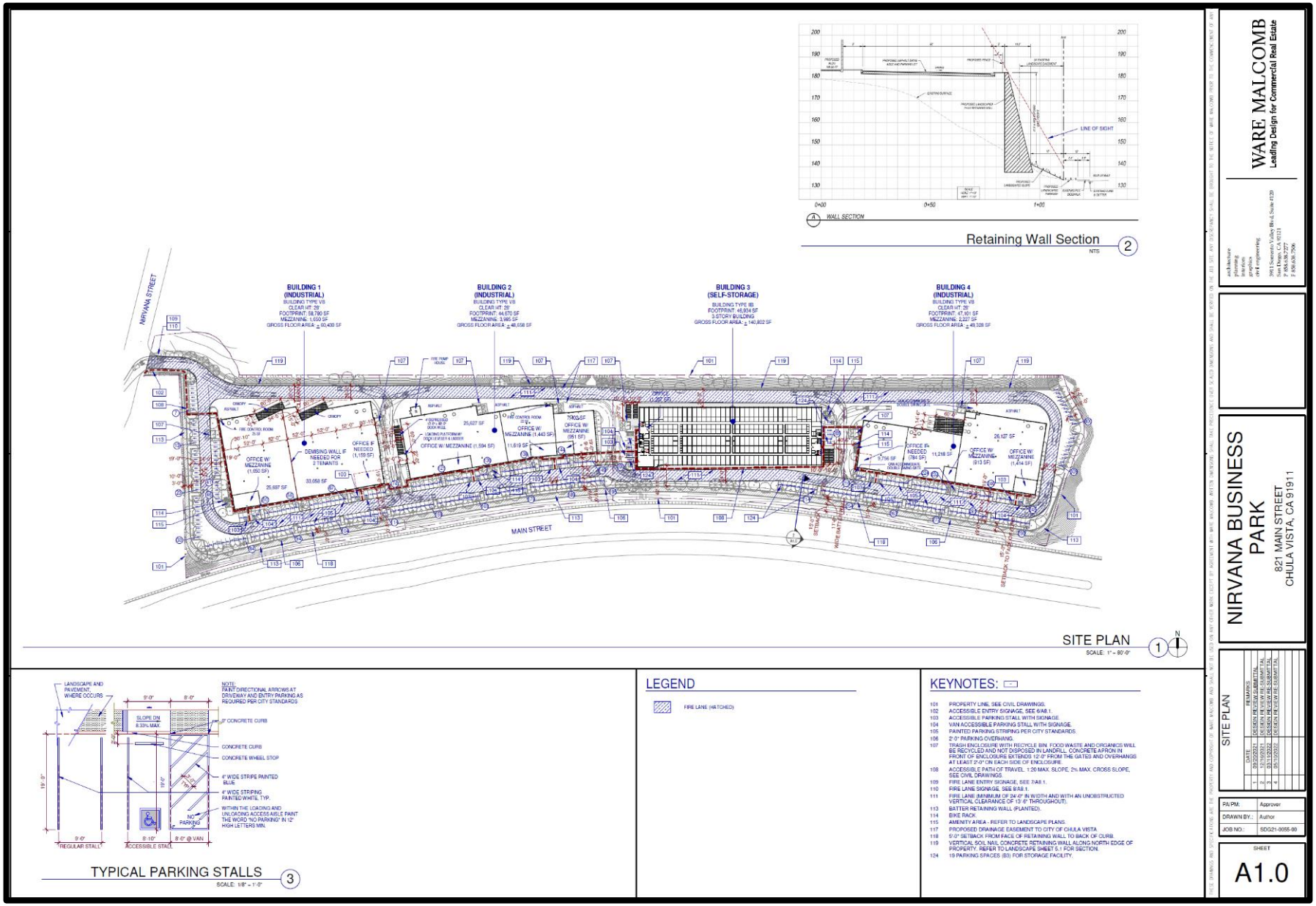


Exhibit B

Site Plan



2.0 Regulatory Framework and Background

2.1 Air Quality Regulatory Setting

Air pollutants are regulated at the national, state, and air basin level; each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level. The San Diego Air Pollution Control District (SDAPCD) regulates at the air basin level.

2.1.1 National and State

The EPA is responsible for global, international, and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, provides research and guidance for air pollution programs, and sets National Air Quality Standards, also known as federal standards. There are six common air pollutants, called criteria pollutants, which were identified from the provisions of the Clean Air Act of 1970.

- Ozone
- Nitrogen Dioxide
- Lead
- Particulate Matter (PM10 and PM2.5)
- Carbon Monoxide
- Particulate Matter
- Sulfur Dioxide

The federal standards were set to protect public health, including that of sensitive individuals; thus, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. Primary federal standards are the levels of air quality necessary, with an adequate margin of safety, to project the public health.

A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain federal standards. The State Implementation Plan 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 State Implementation Plan incorporates individual federal attainment plans for regional air districts—air district prepares their federal attainment plan, which sent to ARB to be approved and incorporated into the California State Implementation Plan. 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. See http://www.arb.ca.gov/research/aaqs/aaqs.htm for additional information on criteria pollutants and air quality standards.

The federal and state ambient air quality standards are summarized in Table 2 and can also be found at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

Table 2: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentrations[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O3)	1-Hour	0.09 ppm	Ultraviolet Photometry	- -	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm		0.070 ppm (147 µg/m³)		
Respirable Particulate Matter (PM10)[8]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µ/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		- -		
Fine Particulate Matter (PM2.5)[8]	24-Hour	- -	- -	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1-Hour	20 ppm (23 µg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 µg/m³)	- -	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 µg/m³)		9 ppm (10 µg/m³)	- -	
	8-Hour (Lake Tahoe)	6 ppm (7 µg/m³)		- -	- -	
Nitrogen Dioxide (NO_2)[9]	1-Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	- -	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (357 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1-Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	- -	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3-Hour	- -		- -	0.5 ppm (1300 mg/m³)	
	24-Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[10]	- -	
	Annual Arithmetic Mean	- -		0.130ppm (for certain areas)[10]	- -	
Lead[11,12]	30 Day Average	1.5 µg/m³	Atomic Absorption	- -		
	Calendar Qrtr	- -		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	- -		0.15 µg/m³		
Visibility Reducing Particles[13]	8-Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Notes:

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

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

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

9. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

10. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

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

12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

13. 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.

Several pollutants listed in Table 2 are not addressed in this analysis. Analysis of lead is not included in this report because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.1.2 Local

San Diego Air Pollution Control District

In San Diego, the APCD is responsible for enforcing the rules and regulations protecting air quality. The San Diego Regional Air Quality Strategy (RAQS) was developed pursuant to California Clean Air Act (CCAA) requirements. The RAQS was initially adopted in 1991, and is updated on a triennial basis (most recently in 2009). The RAQS identifies feasible emission control measures to provide progress in San Diego County toward attaining the State ozone standard. The pollutants addressed in the RAQS are VOCs and NOX, precursors to the photochemical formation of ozone (the primary component of smog).

The RAQS relies on information from CARB and San Diego Association of Governments (SANDAG), including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the

reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and the County as part of the development of the individual General Plans.

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County which indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O3 standard by 2018 (SDAPCD 2016). In this plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the federal O3 standard. The RAQS details how the region will manage and reduce O3 precursors (NOx and VOCs) by identifying measures and regulations intended to reduce these contaminants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

SDAPCD Rules and Regulations

The following rules and regulations apply to all sources in the jurisdiction of SDAPCD, and would apply to the project.

- **SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.** Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart.
- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.
- **SDAPCD Regulation IV: Prohibitions; Rule 52: Particulate Matter.** Prohibits the discharge, from any source, particulate matter in excess of 0.10 grain per dry standard cubic foot (0.23 grams per dry standard cubic meter) of gas.
- **SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.
- **SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.
- **SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.** Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings

to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

- **SDAPCD Regulation XII: Toxic Air Contaminates; Rule 1200: Toxic Air Contaminants – New Source Review.** Requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to either demonstrate that they will not increase the maximum incremental cancer risk above 1 in 1 million at every receptor location, or demonstrate that toxics best available control technology (T-BACT) will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million, or demonstrate compliance with SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million.
- **SDAPCD Regulation XII: Toxic Air Contaminates; Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction.** Requires each stationary source that is required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, or cancer burden equal to or greater than 1.0, or total acute non-cancer health hazard index equal to or greater than 1.0, or total chronic non-cancer health hazard index equal to or greater than 1.0.

San Diego Association of Governments

SANDAG is the regional planning agency for San Diego County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. With respect to air quality planning and other regional issues, SANDAG has prepared San Diego Forward: The Regional Plan (Regional Plan) for the San Diego region (SANDAG 2015). The Regional Plan is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050. In regard to air quality, the Regional Plan sets the policy context in which SANDAG participates and responds to the air district's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways (SANDAG 2015). On September 23, 2016, SANDAG's Board of Directors adopted the final 2016 Regional Transportation Improvement Program (RTIP). The 2016 RTIP is a multi-year program of projects for major transportation projects in the San Diego region. Transportation projects supported through federal, state, and TransNet (the San Diego transportation sales tax program) funds must be included in an approved RTIP. The 2016 RTIP covers five fiscal years and incrementally implements the Regional Plan (SANDAG 2016).

On October 28, 2011, SANDAG adopted the 2050 Regional Transportation Plan (RPT) and Sustainable Communities Strategy (SCS), which meets the CARB emission reduction requirements. The 2050 RTP is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The plan outlines more than $214 billion in transportation system investments through 2050. The RTP is supported by a combination of transportation and land use strategies that help the region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements,

preserve open space areas, improve public health and roadway safety, support our vital goods movement industry and utilize resources more efficiently.

2.1.3 City of Chula Vista

City of Chula Vista General Plan

The Environmental Element of the City of Chula Vista's General Plan contains the following air-quality related objectives and policies that are applicable to the proposed project:

Objective E6 Improve local air quality and reduce greenhouse gas emissions by minimizing the release of air pollutants and toxic air contaminants and limiting the exposure of people to such pollutants.

Policies

E 6.1 Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.

E 6.2 Promote and facilitate transit system improvements in order to increase transit use and reduce dependency on the automobile.

E 6.3 Facilitate the use of alternative fuel and low- and zero-emission vehicles and equipment in the community.

E 6.4 Do not site new or re-powered fossil-fueled baseload or peaking-type Electric Generating Facilities and other major toxic emitters within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities.

E 6.6 Explore incentives to promote voluntary air pollutant reductions, including incentives for developers who go above and beyond applicable requirements and for facilities and operations that are not otherwise regulated.

E 6.7 Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.

E 6.8 Encourage climate resilient design techniques in new buildings and infrastructure to reduce future risks from climate change-related impacts such as wildfires, extreme heat, and flooding.

E 6.9 Discourage the use of landscaping equipment powered by two-stroke gasoline engines within the City and promote less-polluting alternatives to their use.

E 6.11 Develop strategies to minimize CO hot spots that address all modes of transportation.

E 6.12 Promote clean fuel sources that help reduce the exposure of sensitive uses to pollutants.

E 6.13 Encourage programs and infrastructure to increase the availability and usage of energy-efficient vehicles, such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.

E 6.15 Site industries: and other stationary emitters in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate, and disadvantaged populations.

E 6.16 Encourage the use of bicycles through support of bike share opportunities, community bike programs, and the provision of bicycle parking opportunities such as bike racks and bike lockers.

Final Environmental Impact Report for the City of Chula Vista General Plan Update

MM 5.8-1 The City shall continue to implement the Energy Strategy and Action Plan, that addresses demand side management, energy efficient and renewable energy outreach programs for businesses and residents, energy acquisition, power generation, and distributed energy resources and legislative actions, and continue to implement the CO2 Reduction Plan to lessen the impacts on energy.

MM 5.11-1 Mitigation of PM10 impacts requires active dust control during construction.

MM 5.11-2 No residential use shall be permitted or constructed within 1,000 feet of the Otay Landfill while the landfill is open and operating, unless a project specific analysis is completed demonstrating to the satisfaction of the Environmental Review Coordinator that odor effects are below the odor thresholds for common compounds emitted by the landfill for less than two percent of the time

2.2 Greenhouse Gas Regulatory Setting

2.2.1 International

Many countries around the globe have made an effort to reduce GHGs since climate change is a global issue.

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic 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. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas 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.

The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020; a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

2.2.2 National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

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 greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program would apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards would cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). The second phase of the national program would involve

proposing new fuel economy and greenhouse gas standards for model years 2017 – 2025 by September 1, 2011.

On October 25, 2010, the EPA and the U.S. Department of Transportation proposed the first national standards to reduce greenhouse gas emissions and improve fuel efficiency of heavy-duty trucks and buses. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20 percent reduction in carbon dioxide emissions and fuel consumption by the 2018 model year. For heavy-duty pickup trucks and vans, the agencies are proposing 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 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 agencies are proposing engine and vehicle standards starting in the 2014 model year which would achieve up to a 10 percent reduction in fuel consumption and carbon dioxide emissions by 2018 model year.

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule would maintain the CAFE and CO2 standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO2 standards for model year 2020 are 43.7 mpg and 204 grams of CO2 per mile for passenger cars and 31.3 mpg and 284 grams of CO2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO2- equivalent emission improvements associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.[1]

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaption Plan. The EPA Plan identifies priority actions the Agency will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. The following link provides more information on the EPA Plan: https://www.epa.gov/arc-x/planning-climate-change-adaptation

[1] National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018. Available at: https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf.

2.2.3 California

California Code of Regulations (CCR) Title 24, Part 6. CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established 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 efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008 and Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. 2013 and 2016 standards have been approved and became effective July 1, 2014 and January 1, 2016, respectively. 2019 standards were published July 1, 2019 and became effective January 1, 2020.

California Code of Regulations (CCR) Title 24, Part 11. All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards.. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions. The following links provide more information on Title 24, Part 11:
https://www.dgs.ca.gov/BSC/Codes
https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf

California Green Building Standards. On January 12, 2010, the State Building Standards Commission unanimously adopted updates to the California Green Building Standards Code, which went into effect on January 1, 2011. The Housing and Community Development (HCD) updated CALGreen through the 2015 Triennial Code Adoption Cycle, during the 2016 to 2017 fiscal year. During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle.

The Code is a comprehensive and uniform regulatory code for all residential, commercial and school buildings. CCR Title 24, Part 11: California Green Building Standards (Title 24) became effective in 2001 in response to continued efforts to reduce GHG emissions associated with energy consumption. CCR Title 24, Part 11 now require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials. One focus of CCR Title 24, Part 11 is water conservation measures, which reduce GHG emissions by reducing electrical consumption associated with pumping and treating water. CCR Title 24, Part 11 has approximately 52 nonresidential mandatory measures and an additional 130 provisions for optional use. Some key mandatory measures for commercial occupancies include specified parking for clean air vehicles, a 20 percent reduction of potable water use within buildings, a 50 percent construction waste diversion from landfills, use of building finish materials that emit low levels of volatile organic compounds, and commissioning for new, nonresidential buildings over 10,000 square feet.

The 2019 CalGreen Code includes the following changes and/or additional regulations:

Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades[2].

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the post-construction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require post-construction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of post-construction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regard to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regard to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regard to the outdoor potable water use in landscape areas for public schools and community colleges.

[2] https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

HCD updated Section 5.504.5.3 in regard to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13.

The California Green Building Standards Code does not prevent a local jurisdiction from adopting a more stringent code as state law provides methods for local enhancements. The Code recognizes that many jurisdictions have developed existing construction and demolition ordinances, and defers to them as the ruling guidance provided they provide a minimum 50-percent diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy. Enforcement is generally through the local building official. The following link provides more on CalGreen Building Standards:
http://www.bsc.ca.gov/Home/CALGreen.aspx

Executive Order S-3-05. California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following targets:

- By 2010, California shall reduce greenhouse gas emissions to 2000 levels;
- By 2020, California shall reduce greenhouse gas emissions to 1990 levels.
- By 2050, California shall reduce greenhouse gas emissions to 80 percent below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-01-07. Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, CARB approved the proposed regulation to implement the low carbon fuel standard and began implementation on January 1, 2011. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. CARB approved some amendments to the LCFS in December 2011, which were implemented on January 1, 2013. In September 2015, the Board approved the re-adoption of the LCFS, which became effective on January 1, 2016, to address procedural deficiencies in the way the original regulation was adopted. In 2018, the Board approved amendments to the regulation, which included strengthening and smoothing the carbon intensity benchmarks through 2030 in-line with California's 2030 GHG emission reduction target enacted through SB 32, adding new crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon

capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector.

The LCFS is designed to encourage the use of cleaner low-carbon transportation fuels in California, encourage the production of those fuels, and therefore, reduce GHG emissions and decrease petroleum dependence in the transportation sector. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

SB 97. Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Resource Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009, the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance are provided and no specific mitigation measures are identified. The GHG emission reduction amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

AB 32. The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. "Greenhouse gases" as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. ARB is the state agency charged with monitoring and regulating sources of greenhouse gases. AB 32 states the following:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The ARB Board approved the 1990 greenhouse gas emissions level of 427 million metric tons of carbon dioxide equivalent (MMTCO2e) on December 6, 2007 (California Air Resources Board 2007). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 MMTCO2e. Emissions in 2020 in a "business as usual" scenario are estimated to be 596 MMTCO2e.

Under AB 32, the ARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California. Discrete early action measures are currently underway or are enforceable by January 1, 2010. The ARB has 44 early action measures that apply to the transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of these early action measures, nine are considered discrete early action measures, as they are regulatory and enforceable by January 1, 2010. The ARB estimates that the 44 recommendations are expected to result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the 2020 target.

The ARB's Climate Change Scoping Plan (Scoping Plan) initially contained measures designed to reduce the State's emissions to 1990 levels by the year 2020 with a further goal of 40 percent below 2020 levels by 2030 established in 2017 (California Air Resources Board 2017). The 2020 goal was achieved in 2016. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and

the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2030 greenhouse gas target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 50 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 greenhouse gas 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; and
- 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. The Scoping Plan states that the inclusion of these emissions within the cap-and trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount 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 greenhouse gas emission reductions.[4]

SB 375. Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the San Diego Association of Government (SANDAG), which has authority to develop the SCS or APS. For the SANDAG region, the targets set by CARB are at 15 percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG

emissions levels by 2035. On October 28, 2011, SANDAG adopted the 2050 Regional Transportation Plan (RPT) and Sustainable Communities Strategy (SCS), which meets the CARB emission reduction requirements.

The 2050 RTP is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. The plan outlines more than $214 billion in transportation system investments through 2050. The RTP is supported by a combination of transportation and land use strategies that help the region achieve state greenhouse gas emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry and utilize resources more efficiently.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS or APS. However, new provisions of CEQA would incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS or APS and categorized as "transit priority projects."

Assembly Bill 939, Assembly Bill 341, and Senate Bill 1374. Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. AB 341 requires at least 75 percent of generated waste be source reduced, recycled, or composted by the year 2020. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

Executive Order S-13-08. Executive Order S-13-08 indicates 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 (California Natural Resource Agency 2009) was adopted, which is the "… first statewide, multi-sector, region-specific, and information-based 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. Executive Order B-30-15, establishing a new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030, was signed by Governor Brown in April 2015.

Executive Order B-29-15. Executive Order B-29-15, mandates a statewide 25% reduction in potable water usage and was signed into law on April 1, 2015.

Executive Order B-37-16. Executive Order B-37-16, continuing the State's adopted water reduction, was signed into law on May 9, 2016. The water reduction builds off the mandatory 25% reduction called for in EO B-29-15.

Executive Order N-79-20. Executive Order N-79-20 was signed into law on September 23, 2020 and mandates 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the state be zero-emission vehicles by 2045 for all operations where feasible and by 2035 for drayage trucks; and to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

Renewables Portfolio Standard (RPS) Program. California's RPS program was established in 2002 by Senate Bill (SB) 1078 with the initial requirement that 20% of electricity retail sales must be served by renewable resources by 2017. The program was accelerated in 2015 with SB 350 which mandated a 50% RPS by 2030. SB 350 includes interim annual RPS targets with three-year compliance periods and requires 65% of RPS procurement to be derived from long-term contracts of 10 or more years. In 2018, SB 100 was signed into law, which again increases the RPS to 60% by 2030 and requires all the state's electricity to come from carbon-free resources by 2045 (CPUC 2021).

San Diego Gas & Electric procured 42 percent of its power from renewable resources, which is above the State's statutory and Commission's RPS program requirements (SDG&E 2021).

2.2.4 Local

San Diego Air Pollution Control District (SDAPCD)

SDAPCD does not have established GHG rules, regulations, or policies.

City of Chula Vista

City of Chula Vista Climate Action Plan

In 2000, the City of Chula Vista became the first municipality in San Diego County to adopt a Climate Action Plan (CAP). The plan, CO2 Reduction Plan, inventoried existing CO2 emissions, projected emissions growth to 2010, and evaluated a wide range of CO2 reduction measures. Measures included in the original Climate Action Plan focus on Transportation Control Measures; land use patterns; clean transportation fuels; and residential, commercial, and industrial building efficiencies. In 2005, the City re-inventoried GHG emissions inventory to evaluate the City's progress in reaching its emissions goals. Subsequently, the City developed the Climate Mitigation Plans (2008) and Climate Adaptation Plans (2011).

In September 2017, the City released a new CAP. Whereas previous climate planning documents established a target of 15 percent below 2005 levels by 2020 consistent with the Original Scoping Plan, the updated CAP reflects new guidance from the 2017 Scoping Plan which recommends that local governments pursue reduction goals of 6 MT CO2E per capita in 2030 and 2 MT CO2E per capita in 2050.

As the City began working on climate action planning earlier than other jurisdictions, previous efforts have already reduced communitywide emissions to less than 6 MT CO2E per capita. To support the longer-term 2050 goal, the new CAP includes measures that promote energy and water-efficient buildings, smart growth and clean transit, zero waste policies, and increased local energy generation and water resources. These additional reduction measures are anticipated to result in an additional reduction of 194,950 MT CO2E (or approximately 0.4 MT of per capita reductions).

City of Chula Vista General Plan

The City's General Plan includes various policies related to reducing greenhouse gas emissions. The applicable policies to the project are listed below.

Land Use and Transportation Element

LUT -23.1 Encourage the use of bicycles and walking as alternatives to driving.

LUT -23.8 Provide and maintain a safe and efficient system of sidewalks, trails, and pedestrian crossings.

LUT -23.14 Require new development projects to provide internal bikeway systems with connections to the citywide bicycle networks.

Environmental Element

E -6.5 *Ensure* that plans developed to meet the City's energy demand use the least polluting strategies, wherever practical. Conservation, clean renewables, and clean distributed generation should be considered as part of the City's energy plan, along with larger natural gas-fired plants.

E-6.7 Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.

E-6.8 Support the use of alternative fuel transit, City fleet and private vehicles in Chula Vista.

E -7.1 Promote development of regulations and building design standards that maximize energy efficiency through appropriate site and building design and through the use of energy-efficient materials, equipment, and appliances.

E-7.6 Encourage the construction and operation of green buildings, considering such programs as the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

E-7.8 Ensure that residential and non-residential construction complies with all applicable City energy efficiency measures and other green building measures that are in effect at the time of discretionary permit review and approval or building permit issuance, whichever is applicable.

E-78.1 Promote efforts to reduce waste, minimize the need for additional landfills, and provide economically and environmentally sound resource recovery, management, and disposal facilities.

2.3 Health Risk Regulatory Setting

Health Risk Assessments for Proposed Land Use Projects CAPCOA Guidance Document. This guidance was adopted July 2009 to ensure consistency in assessing the health risk impacts from and to proposed land use projects. This CAPCOA guidance document focuses on the acute, chronic, and cancer impacts of sources affected by CEQA. It also outlines the recommended procedures to identify when a project should undergo further risk evaluation, how to conduct the health risk assessment (HRA), how to engage the public, what to do with the results from the HRA, and what mitigation measures may be appropriate for various land use projects. With respect to health risks associated with locating sensitive land uses in proximity to freeways and other high traffic roadways, HRA modeling may not thoroughly characterize all the health risk associated with nearby exposure to traffic generated pollutants.

California Code of Regulations (CCR) Title 13 Section 2485. The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling applies to diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicle weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. It limits applicable vehicles from idling more than five consecutive minutes at any location.

3.0 Setting

3.1 Existing Physical Setting

The project site is located in the City of Chula Vista, which is in the San Diego Air Basin (SDAB). The boundaries of the SDAB are contiguous with the political boundaries of San Diego County. The County of San Diego is bounded on the north by Orange and Riverside Counties, on the east by Imperial County, on the west by the Pacific Ocean, and on the south by the Mexican State of Baja California.

3.1.1 Local Climate and Meteorology

The San Diego Air Basin climate is largely dominated by the semi-permanent high-pressure system over the Pacific Ocean, which creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, daytime onshore breezes, and little temperature variation year round. The San Diego area is classified as having a Mediterranean climate, with warm, dry summers and mild, wet winters. Temperature and precipitation can vary widely within the SDAB, where average annual precipitation ranges from approximately 10 inches in the coastal and inland areas to over 30 inches in the mountains (County of San Diego, 2007). In general, more mild annual temperatures are experienced in the maritime and coastal areas, whereas the interior and desert areas experience warmer summers and cooler winters. The project site is located approximately 2.8 miles inland from the coast.

The high-pressure system drives the prevailing winds in the SDAB. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases the O_3 levels. During winter, San Diego often experiences a shallow inversion layer which tends to increase carbon monoxide and PM2.5 concentration levels due to the increased use of residential wood burning. The SDAB is often impacted by Santa Ana winds during the fall months. These winds blow the air basin's pollutants out to sea; however, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the San Diego O_3 concentrations. (SDAPCD 2017)

The temperature and precipitation levels for the City of Chula Vista are in Table 3. Table 3 shows that August and September are typically the warmest months and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 3: Meteorological Summary

Month	Temperature (˚F)		Average Precipitation (inches)
	Average High	Average Low	
January	68.0	45.7	1.87
February	67.8	47.6	2.31
March	68.2	50.2	1.70
April	69.5	53.0	0.68
May	70.1	57.3	0.14

June	72.0	60.7	0.06
July	75.7	64.1	0.03
August	77.7	65.3	0.02
September	78.0	63.0	0.13
October	75.6	57.8	0.50
November	69.3	48.7	0.97
December	67.9	45.6	1.55
Annual Average	**71.9**	**55.1**	**10.0**

Notes:
[1] Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1758

3.1.2 Local Air Quality

The San Diego APCD operates and maintains ten monitoring stations located throughout the region. The purpose of these stations is to measure concentrations of the criteria pollutants and determine whether the ambient air quality meets the NAAQS and the CAAQS. The nearest air monitoring station to the project site is the Chula Vista Monitoring Station (Chula Vita Station). The Chula Vista Station is located approximately 3.61 miles northwest of the project site at 80 E J Street. Table 4 presents the monitored pollutant levels within the vicinity. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site.

<Table 4, next page>

Table 4: Local Area Air Quality Levels[1]

Pollutant (Standard)[2]	Year		
	2018	2019	2020
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.076	0.090	0.106
Days > CAAQS (0.09 ppm)	0	0	1
Maximum 8-Hour Concentration (ppm)	0.065	0.077	0.086
Days > NAAQS (0.07 ppm)	**0**	2	**4**
Days > CAAQS (0.070 ppm)	**0**	2	**4**
Carbon Monoxide:			
Maximum 1-Hour Concentration (ppm)	*	*	*
Days > NAAQS (20 ppm)	*	*	*
Maximum 8-Hour Concentration (ppm)			
Days > NAAQS (9 ppm)	0.052	0.050	0.045
Nitrogen Dioxide:	0	0	0
Maximum 1-Hour Concentration (ppm)			
Days > NAAQS (0.25 ppm)	*	*	*
Sulfur Dioxide:	*	*	*
Maximum 1-Hour Concentration (ppm)			
Days > CAAQS (0.25 ppm)	45.0	69.4	*
Inhalable Particulates (PM10):	0	0	*
Maximum 24-Hour Concentration (ug/m^3)	**0**	1	*****
Days > NAAQS (150 ug/m^3)	20.7	17.2	*
Days > CAAQS (50 ug/m^3)	No	No	*
Annual Average (ug/m^3)	**Yes**	**No**	*
Annual > NAAQS (50 ug/m^3)			
Annual > CAAQS (20 ug/m^3)	41.9	18.6	46.7
Ultra-Fine Particulates (PM2.5):	**1**	**0**	2
Maximum 24-Hour Concentration (ug/m^3)	10	10	*
Days > NAAQS (35 ug/m^3)	No	No	*
Annual Average (ug/m^3)	No	No	*
Annual > NAAQS (15 ug/m3)	**2018**	**2019**	**2020**
Annual > CAAQS (12 ug/m^3)			

[1] Source: obtained from https://www.arb.ca.gov/adam/topfour/topfour1.php
[2] CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million
* No data and/or insufficient data available.

The monitoring data presented in Table 4 shows that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area, which are detailed below.

Ozone

During the 2018 to 2020 monitoring period, the State 1-hour concentration standard for ozone was exceeded for one day in 2020 at the Chula Vista Station. The State 8-hour ozone standard has been exceeded for two days in 2019 and four days in 2020 over the past three years at the Chula Vista Station. The Federal 8-hour ozone standard has been exceeded for two days in 2019 and four days in 2020 over the past three years at the Chula Vista Station.

Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Chula Vista Station did not record an exceedance of the state or federal 1-hour or 8-hour CO standards for the last three years.

Nitrogen Dioxide
The Chula Vista Station did not record an exceedance of the State or Federal NO_2 standards for the last three years.

Sulfur Dioxide
The Chula Vista Station did not record an exceedance of the State SO_2 standards for the last three years.

Particulate Matter
During the 2018 to 2020 monitoring period, the State 24-hour concentration standard for PM10 were exceeded for one day in 2019 at the Chula Vista Station. Over the same time period the Federal 24-hour and annual standards for PM10 have not been exceeded at the Chula Vista Station.

During the 2018 to 2020 monitoring period, the Federal 24-hour standard for PM2.5 was exceeded for one day in 2018 and two days in 2020 at the Chula Vista Station

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

3.1.3 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 three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

The criteria pollutants of primary concern that are considered in this analysis are O3, NO2, CO, SO2, PM10, and PM2.5. Although there are no ambient standards for VOCs or NOx, they are important as precursors to O_3. The portion of the SDAB where the project site is located is designated by the EPA as a

nonattainment area for the 8-hour NAAQS for O_3. The SDAB is designated in attainment for all other criteria pollutants under the NAAQS with the exception of PM10, which was determined to be unclassifiable. The SDAB is currently designated nonattainment for O3 and particulate matter, PM10 and PM2.5, under the CAAQS. It is designated attainment for the CAAQS for CO, NO2, SO2, lead, and sulfate

Table 5 lists the attainment status for the criteria pollutants in the basin.

Table 5: San Diego County Air Basin Attainment Status

Pollutant	Federal Designation	State Designation
O_3 (1 hour)	Attainment[1]	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable[2]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility-reducing particulates	(No federal standard)	Unclassified

Notes:

Sources:https://www.sandiegocounty.gov/content/sdc/apcd/en/air-quality-planning/attainment-status.html

[1] The federal 1-hour standard of 0.12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

[2] At the time of designation, if the available data do not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

3.2 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO_2 and nitrous oxide (NO_2) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Table 6 provides a description of each of the greenhouse gases and their global warming potential.

Additional information is available: https://www.arb.ca.gov/cc/inventory/data/data.htm

Table 6: Description of Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Nitrous oxide	Nitrous oxide (N_20),also known as laughing gas is a colorless gas. It has a lifetime of 114 years. Its global warming potential is 298.	Microbial processes in soil and water, fuel combustion, and industrial processes. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_20.
Methane	Methane (CH_4) 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.	A natural source of CH_4 is from the decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from the decay of organic material in landfills, fermentation of manure, and cattle farming.
Carbon dioxide	Carbon dioxide (CO_2) is an odorless, colorless, natural greenhouse gas. Carbon dioxide'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.
Chlorofluorocarbons	CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). They are gases formed synthetically by replacing all hydrogen atoms in methane or methane with chlorine and/or fluorine atoms. Global warming potentials range from 3,800 to 8,100.	Chlorofluorocarbons were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone, therefore their production was stopped as required by the Montreal Protocol.
Hydrofluorocarbons	Hydrofluorocarbons (HFCs) are a group of greenhouse gases containing carbon, chlorine, and at least one hydrogen atom. Global warming potentials range from 140 to 11,700.	Hydrofluorocarbons are synthetic manmade chemicals used as a substitute for chlorofluorocarbons in applications such as automobile air conditioners and refrigerants.
Perfluorocarbons	Perfluorocarbons (PFCs) have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above the Earth's surface. They have a lifetime 10,000 to 50,000 years. They have a global warming potential range of 6,200 to 9,500.	Two main sources of perfluorocarbons are primary aluminum production and semiconductor manufacturing.
Sulfur hexafluoride	Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. It has a high global warming potential, 23,900.	This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Notes:

1. Sources: Intergovernmental Panel on Climate Change 2014a and Intergovernmental Panel on Climate Change 2014b. https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html

4.0 Modeling Parameters and Assumptions

4.1 Construction

Typical emission rates from construction activities were obtained from CalEEMod Version 2022.1 The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the southwestern portion of San Diego County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Using CalEEMod, the peak daily air pollutant emissions were calculated and presented below. These emissions represent the highest level of emissions for each of the construction phases in terms of air pollutant emissions.

The analysis assesses the emissions associated with the construction of the proposed project as indicated in Table 1. Per the project applicant, the proposed project is to begin construction no earlier than June 2023 with construction being completed in 2025. The phases of the construction activities which have been analyzed below are: 1) site preparation, 2) grading, 3) building, 4) paving, and 5) architectural coating. CalEEMod default construction equipment counts were used as a basis. Construction phase lengths were proportionally increased from CalEEMod default lengths to account for the two-year construction timeline. Additional hauling trips were added to account for asphalt delivery during paving and were based on a conservative assumption of 65 square feet of coverage per cubic yard of asphalt and 16 cubic yards of asphalt per hauling trip.[3] For details on construction modeling and construction equipment for each phase, please see Appendix A.

The project would be required to comply with SDAPCD Rules 52, 54, and 55 which identify measures to reduce fugitive dust and are required to be implemented at all construction sites located within the SDAB. The requirements to reduce fugitive dust in compliance with SDAPCD Rules 52, 54, and 55 were included in CalEEMod for the grading phase of construction.

The architectural coating phase involves the greatest release of VOCs. The emissions modeling for the project includes the use of low-VOC paint (50 grams per liter [g/L] for not flat coatings for the buildings and 100 [g/L] for parking lot striping) as required by SDAPCD Rule 67.0.1.[4]

[3] Reeves Construction Company. Material Calculator. https://www.reevescc.com/asphalt-calculator/.
[4] Rule 67.0.1. Architectural Coatings. Table 2. February 10, 2021.
https://www.sdapcd.org/content/dam/sdapcd/documents/rules/rule-archive/2021/Rule-67.0.1.pdf.

4.2 Operations

Operational or long-term emissions occur over the life of the Project. Both mobile and area sources generate operational emissions. Area source emissions arise from consumer product usage, heaters that consume natural gas, gasoline-powered landscape equipment, and architectural coatings (painting). Mobile source emissions from motor vehicles are the largest single long-term source of air pollutants from the operation of the Project. Small amounts of emissions would also occur from area sources such as the consumption of natural gas for heating, hearths, from landscaping emissions, and consumer product usage. The operational emissions were estimated using the latest version of CalEEMod.

Mobile Sources
Mobile sources include emissions from the additional vehicle miles generated from the proposed project. A Traffic Study from Linscott, Law, and Greenspan, Engineers estimated the project to generate 1,549 trips per day based upon the trip generation rates provided in SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region (SANDAG 2002). The trip generation rates utilized for the proposed project include eight trips per thousand square foot per day for the industrial park uses and two trips per thousand square foot per day for the storage building uses. Per the traffic analysis, the project would generate approximately 200 truck trips per day, estimated at a trip length of 40 miles. The SAFE Vehicle Rule was conservatively applied to the analysis.

The program then applies the emission factors for each trip which is provided by the EMFAC2017 model to determine the vehicular traffic pollutant emissions. The CalEEMod default trip lengths were used in this analysis. CalEEMod default distances are based on land use type and location of the project. While it is possible trips could be significantly larger than these estimates, there is no aspect of the project which would suggest consistent above average trips lengths compared to the average warehouse use in CalEEMod. Please see CalEEMod output comments sections in Appendix A for details.

Area Sources
Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment.

The architectural coating phase involves the greatest release of volatile organic compounds (VOCs).

Water and Wastewater Sources
Water and wastewater sources include emissions from electricity usage from supplying water, distributing water, and wastewater treatment.

Solid Waste Sources
Solid waste sources include emissions from disposal of solid waste into landfills.

Energy Usage

2022.1 CalEEMod defaults were utilized. CalEEMod outputs can be found in Appendix A.

5.0 Thresholds of Significance

5.1 Air Quality Thresholds of Significance

5.1.1 CEQA Guidelines for Air Quality

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

The following air quality significance thresholds are contained in Appendix G of the CEQA Guidelines. A significant impact would occur if the 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 national or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

d) Result in other emissions (such as those leading to odors) adversely 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, SDAPCD recommends that its quantitative air pollution thresholds be used to determine the significance of project emissions. If the Lead Agency finds that the project has the potential to exceed these air pollution thresholds, the project should be considered to have significant air quality impacts.

The City evaluated project emissions based on the quantitative emission thresholds established by the South Coast Air Quality Management District (SCAQMD). The City of Chula Vista is located within the San Diego Air Pollution Control District (SDAPCD); however, the SDAPCD has only established thresholds for stationary sources and not for CEQA purposes. Therefore, the City chose to use thresholds from the adjacent district, SCAQMD. The SCAQMD sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. It should be noted that the use of these significance thresholds is conservative, as the SCAQMD's significance thresholds were originally based on the South Coast Air Basin extreme ozone nonattainment status for the 1-hour NAAQS, whereas the SDAB was designated as an attainment area for the 1-hour NAAQS. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented below are exceeded.

5.1.2 Regional Significance Thresholds

As discussed above, the City has established thresholds based on the quantitative emission thresholds established by the SCAQMD. These screening criteria can be used to demonstrate whether a project's

total emissions would result in a significant impact as defined by CEQA. These daily screening thresholds for construction and operations are shown in Table 7 below.

Table 7: City of Chula Vista Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (pounds per day)**	**Operation (pounds per day)**
VOCs	75	55
NOx	100	55
CO	550	550
SOx	150	150
PM10	150	150
PM2.5	55	55
Lead*	3	3

Notes:
Source: SCAQMD 2015.
VOC = volatile organic compound; Nox = oxides of nitrogen; CO = carbon monoxide; Sox= suflur oxides; PM10 = coarse partiulcate matter; PM2.5 = fine particulate matter.
*The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The thresholds listed above, and in Table 7, represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 7, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

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

5.2 Greenhouse Gas Thresholds of Significance

5.2.1 CEQA Guidelines for Greenhouse Gas

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

The following greenhouse gas 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 project would:

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

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

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

No GHG emission thresholds have been adopted by the City for land development projects. The City of Chula Vista Climate Action Plan also does not establish GHG emission thresholds. The San Diego Air Pollution Control District (SDAPCD) is considered the most appropriate agency with special knowledge in the subject area as the City is located within the SDAPCD jurisdiction. However, the SDAPCD has not issued guidance for assessing GHG impacts from land use development projects. Thus, in the absence of a threshold of significance for GHG emissions for the SDAPCD, as has been done with previous projects in the City, the project is evaluated based on the recommendation from the next closest air district, the South Coast AQMD.

This analysis follows guidance from the South Coast AQMD's Interim CEQA GHG Significance Thresholds (SCAQMD 2008). South Coast AQMD's thresholds are a tiered approach; projects may be determined to be less than significant under each tier or require further analysis under subsequent tiers. As identified in the Working Group meeting in September 2010, the five tiers are:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether or not the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose but must be consistent. A project's construction emissions are averaged over 30 years and are added to a project's operational emissions. If a project's emissions are under one of the following screening thresholds, then the project is less than significant:

    - All land use types: 3,000 MTCO2e per year
    - Based on land use types: residential is 3,500 MTCO2e per year; commercial is 1,400 MTCO2e per year; industrial is 10,000 MTCO2e per year; and mixed use is 3,000 MTCO2e per year

- Tier 4 has the following options:
  - Option 1: Reduce emissions from business as usual by a certain percentage; this percentage is currently undefined
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: Year 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO2e/SP/year for projects and 6.6 MTCO2e/SP/year for plans;
  - Option 3, 2035 target: 3.0 MTCO2e/SP/year for projects and 4.1 MTCO2e/SP/year for plans

- Tier 5 involves mitigation offsets to achieve target significance threshold.

Tier 1 and Tier 2 thresholds are based on planning consistency. This approach, which is referred to in the CEQA Guidelines as "tiering," allows agencies to rely on programmatic analysis of GHG emissions to determine that subsequent development consistent with the regional plan would result in incremental GHG emissions contribution that represent a less than significant contribution to cumulative effects.

Tier 3 significance screening levels from SCAQMD guidance are based on the concept of establishing a 90 percent GHG emission market capture rate. A 90 percent emission capture rate means that 90 percent of total emissions from new development projects would be subject to CEQA analysis and mitigation. The market capture rate of 90 percent was developed to capture a substantial fraction of GHG emissions from new development projects while excluding small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This market capture rate approach is based on guidance from the CAPCOA report CEQA & Climate Change, dated January 2008 (CAPCOA 2008). Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified screening levels for 90 percent market capture rate would not impede achievement of the statewide GHG emissions reduction targets.

Tier 4 and Tier 5 interim thresholds are intended to demonstrate project consistency with the AB 32 goal of achieving 1990 emission levels by 2020 and the SB 32 goal of reducing GHG emissions to 40 percent below 1990 levels by 2030.

Therefore, although this project is an industrial use it has been initially compared to the SCAQMD draft Tier 3 industrial threshold of 10,000 MTCO2e per year and then, per SCAQMD's Tier 2 thresholds, assessed in compliance with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. As a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the SANDAG's Regional Plan, which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the state's long-term climate goals. This analysis also considers consistency with regulations and requirements adopted by the Scoping Plan and the City's CAP.

5.3 Toxic Air Contaminants

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

Therefore, the threshold for toxic air contaminants (TACs) is a maximum incremental cancer risk of 10 per million and a non-cancer (acute and chronic) hazard index of 1.0 or greater. An exceedance to these values would be considered a significant impact.

6.0 Air Quality Emissions Impact

6.1 Construction Air Quality Emissions Impact

The latest version of CalEEMod was used to estimate the construction emissions. The emissions incorporate adherence to SDAPCD Rules 52, 54, 55, and 67 (as identified in Section 4.1 above). Adherence to these rules are not considered mitigation measures as the project by default is required to incorporate these rules during construction.

6.1.1 Temporary Construction Emissions

The construction emissions for the project would not exceed the City's screening level thresholds during project construction, as demonstrated in Table 8, and therefore would be considered less than significant. Construction modeling parameters and assumptions can be found in Section 4.1.

Table 8: Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Activity	Pollutant Emissions[1]					
	VOC	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
2023	7.83	77.30	68.90	0.11	15.00	8.57
2024	1.78	13.40	20.10	0.03	1.89	0.81
2025	54.60	12.60	18.90	0.03	1.83	0.75
Maximum Daily Emissions	54.60	77.30	68.90	0.11	15.00	8.57
Chula Vista Threshold	75	100	550	150	150	55
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
Source: CalEEMod Version 2022.1
[1] Site Preparation and Grading phases incorporate anticipated emissions reductions required by SDAPCD Rules 52, 54, and 55 to reduce fugitive dust. The architectural coating phases incorporate anticipated emissions reductions required by SDAPCD Rule 67 (50 g/L VOC for building coatings & 100 g/L VOC for parking lot striping).

6.1.2 Construction-Related Toxic Air Contaminant Impact

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. The Office of Environmental Health Hazard Assessment (OEHHA) has issued the Air Toxic Hot Spots Program Risk Assessment Guidelines and Guidance Manual for the Preparation of Health Risk Assessments, February 2015 to provide a description of the algorithms, recommended exposure variates, cancer and noncancer health values, and the air modeling protocols needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987. Hazard identification includes identifying all substances that are evaluated for cancer risk and/or noncancer acute, 8-hour, and chronic health impacts. In addition, identifying any multi-pathway substances that present a cancer risk or chronic noncancer hazard via non-inhalation routes of exposure.

CARB In-Use Off-Road Diesel-Fueled Fleets Regulation limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment, and phases out Tier 1

and 2 equipment thereby replacing fleets with cleaner equipment, and requires that fleets comply with Best Available Control Technology requirements.

The closest existing sensitive receptors to the project are the single-family residential land uses located approximately 1,425 feet (~435 meters) northeast and 1,430 feet (~436 meters) southwest of the project site.

SDAPCD has not established guidance for conducting construction health risk assessments. Additionally, the SCAQMD, the adjacent air quality district to the north, does not require land use development projects to prepare quantitative construction HRAs and therefore has no guidance on the preparation of construction HRAs. Given the relatively limited number of heavy-duty construction equipment and construction schedule, the proposed project can qualitatively be determined to not result in a long-term substantial source of toxic air containment emissions and corresponding individual cancer risk. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term toxic air contaminant impacts would occur during construction of the proposed project.

6.2 Operational Air Quality Emissions Impact

6.2.1 Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through the use of CalEEMod model. The operating emissions were based on year 2025, which is the anticipated opening year for the project. The summer and winter emissions created by the proposed project's long-term operations were calculated and the highest emissions from either summer or winter are summarized in Table 9. Emissions were modeled according to the parameters and assumptions established in Section 4.2.

Table 9: Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)[1]					
	VOC	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
Area Sources[2]	8.96	0.11	13.00	0.00	0.02	0.02
Energy Usage[3]	0.06	1.18	0.99	0.01	0.09	0.09
Mobile Sources[4]	5.95	39.90	48.20	0.34	7.14	1.92
Total Emissions	**14.97**	**41.19**	**62.19**	**0.35**	**7.25**	**2.03**
Chula Vista Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

[1] Source: CalEEMod Version 2022.1
[2] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of emissions from on-site natural gas usage.
[4] Mobile sources consist of emissions from vehicles and road dust.

The data in Table 9 shows that emissions from the operation of the proposed project does not exceed City thresholds. Therefore, the impact is considered less than significant.

6.3 CO Hot Spot Emissions

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards.

The SDAB is classified as a state attainment area and as a federal maintenance area for CO. Until 2003, no violations of the state standard for CO had been recorded in the SDAB since 1991, and no violations of the national standard had been recorded in the SDAB since 1989. The violations that took place in 2003 were likely the result of massive wildfires that occurred throughout the county. No violations of the state or federal CO standards have occurred since 2003.

Small-scale, localized concentrations of CO above the state and national standards have the potential to occur at intersections with stagnation points such as those that occur on major highways and heavily traveled and congested roadways. Localized high concentrations of CO are referred to as "CO hot spots" and are a concern at congested intersections, where automobile engines burn fuel less efficiently and their exhaust contains more CO.

Localized CO concentration is a direct function of motor vehicle activity at signalized intersections (e.g., idling time and traffic flow conditions), particularly during peak commute hours and meteorological conditions. The SDAB is a CO maintenance area under the federal CAA. This means that SDAB was previously a non-attainment area and is currently implementing a 10-year plan for continuing to meet and maintain air quality standards.

The SDAB is a CO maintenance area (western and central part of the SDAB only). To determine the impact of the Project contribution to the CO concentration of the area, comparison can be made to analyses performed by the SCAQMD. As a screening analysis, the SCAQMD conducted CO modeling for the 2003 AQMP (Appendix V: Modeling and Attainment Demonstrations, SCAQMD 2003) for the four worst-case intersections in the SCAB: (1) Wilshire Boulevard and Veteran Avenue, (2) Sunset Boulevard and Highland Avenue, (3) La Cienega Boulevard and Century Boulevard, and (4) Long Beach Boulevard and Imperial Highway. At the time the 2003 AQMP was prepared, the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. Using CO emission factors for 2002, the peak modeled CO 1-hour concentration was estimated to be 4.6 ppm at the intersection of Wilshire Boulevard and Veteran Avenue. The 2003 AQMP also projected 8-hour CO concentrations at these four intersections for 1997 and from 2002 through 2005. From years 2002 through 2005, the maximum 8-hour CO concentration was 3.8 ppm at the Sunset Boulevard and Highland Avenue intersection in 2002; the maximum 8-hour CO concentration was 3.4 ppm at the Wilshire Boulevard and Veteran Avenue in 2002. These concentrations did not exceed the 1-hour CO CAAQS of 20 ppm nor the 8-hour of 9 ppm. Therefore, an intersection would need over 200,000 vehicles per day to exceed the 8-hour CO CAAQS (9.0 ppm) or 400,000 vehicles per day to exceed 1-hour CO CAAQS (20 ppm).

Accordingly, CO concentrations at congested intersections would not exceed the 8-hour CO CAAQS if projected daily traffic would generate less than 200,000 vehicles per day or the 1-hour CO CAAQS for less than 400,000 vehicles per day. Per the traffic study for the Project (Linscott, Law and Greenspan, Engineers), and as shown in the CalEEMod Output (see Appendix A), the proposed project is anticipated to generate approximately 1,549 vehicle trips per day. The traffic volume on Main Street adjacent to the project was recorded as 16,719, with the largest traffic volume in the vicinity of the project recorded at 46,982 west of the project at the intersection of Main Street and Brandywine Avenue per the project traffic study. Therefore, as the proposed project is anticipated to generate only 1,549 daily trips and would not be anticipated to increase daily traffic volumes at any study intersection to more than 100,000 vehicles per day, a CO hotspot is not anticipated to occur and associated impacts would be less than significant.

6.4 Odors

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors located 1,425 feet northeast from the project. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the proposed project.

SDAPCD Rule 51 recommends that odor impacts be addressed in a qualitative manner.[5] Such an analysis shall determine whether the project would result in excessive nuisance odors, as defined under the California Code of Regulations and Section 41700 of the California Health and Safety Code, and thus would constitute a public nuisance related to air quality.

Land uses and industrial operations typically associated with odor complains include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, refineries, landfills, dairies, and fiberglass molding. The proposed operations including an industrial warehouse use totaling 158,418 square feet and 140,802 square feet of self-storage use. Therefore, the anticipated uses for the proposed industrial project are not typically associated with objectionable odors.

6.5 Cumulative Regional Air Quality Impacts

Cumulative projects include local development as well as general growth within the project area. A list of projects that could contribute to a cumulative impact with the project are included in Appendix B. However, as with most development, the greatest source of emissions is from mobile sources, which

[5] SDAPCD. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-51.pdf.

travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area. Accordingly, the cumulative analysis for the project's air quality must be generic by nature.

For cumulative impacts from the project, the analysis must specifically evaluate contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If the project does not exceed thresholds and is determined to have less than-significant project-specific impacts, it may still contribute to a significant cumulative air quality impact if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, the project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

The project area is out of attainment for O_3 for federal standards and O_3, PM_{10}, and $PM_{2.5}$ for state standards. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the SDAB. As discussed in Section 6.1.1, the construction related emissions will be below the significance levels of SCAQMD significance thresholds utilized by the City and would not result in significant impacts to air quality. Construction will be short-term and consistent with the size and scale of the project. Construction of the project will potentially be conducted at the same time and in the same general vicinity as other major construction projects; however, project construction is not anticipated to result in a cumulatively significant impact related to particulate matter emissions as the other identified cumulative projects are not close enough to the project site to generate cumulatively considerable particulate matter emission levels. Impacts would be less than significant.

Furthermore, the project will not contribute to any cumulative odor impacts through compliance with SDAPCD Rule 51, which prohibits emissions from a project that would cause injury, detriment, nuisance, or annoyance to the public health or damage to property, as discussed in Section 6.4.

As stated in Section 2.1.2, the RAQS relies on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the county as part of the development of their general plans. It is assumed that a project which conforms to the General Plan, and does not have emissions exceeding operational thresholds, will not create a cumulatively considerable net increase to ozone since the emissions were accounted for in the RAQS. The project site has a land use designation of Limited Industrial (IL) according to the City of Chula Vista General Plan Land Use Diagram. Per the General Plan, the IL designation is intended for light manufacturing; warehousing; certain public utilities; auto repair; auto salvage yards; and flexible-use projects that combine these uses with associated office space. Therefore, the project would be consistent with the existing general plan and zoning for the City of Chula Vista; therefore, the project would be considered consistent with the RAQS. Furthermore, as shown in Section 6.2.1, operational emissions generated by the project would be below the established significance thresholds for criteria pollutants, and the project's operational emissions would not result in a cumulatively considerable contribution to the region's poor air quality. Cumulative air quality impacts would, therefore, be less than significant.

6.6 Health and Equity Impacts

Existing pollution and socioeconomic vulnerability are key factors in determining the full impact of a project. CalEnviroScreen (CES) 4.0 creates a score based on the existing pollution burden and population characteristics to demonstrate the effects of pollution burden. The maximum CES score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state. The CES score for the project area is currently 32. Additionally, the California Healthy Places Index (HPI) is based on a composite of all HPI indicators and scores the existing health of a community. The maximum HPI score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state. The HPI for the existing project area in 77.

The project would not exceed any thresholds of significance as demonstrated in sections 6.1 and 6.2 and would not contribute to a cumulative impact in the area, as discussed in section 6.5. Therefore, the project would not contribute to a worsening of the health and equity of the area. Furthermore, the project will be implementing programs to improve social equity, encouraging community input in the project and maintaining community communication. The complete list of health and equity measures to be implemented can be found in the CalEEMod output in Appendix A. Based on these measures, the project would qualify for the first tier of the CalEEMod Health and Equity Evaluation Scorecard, the Acorn equity award level.

6.7 Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the RAQS. Therefore, this section discusses any potential inconsistencies of the proposed project with the RAQS.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the RAQS and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The RAQS relies on information from CARB and SANDAG, including projected growth in the County, mobile, area, and all other source emissions in order to project future emissions and determine strategies necessary for the reduction of stationary source emissions. Those projects that propose development that is consistent with the City's General Plan are; therefore, consistent with the RAQS.

SANDAG's Regional Growth Forecast notes that the City will add 42,107 new jobs between 2016 and 2050.[6] The project is an industrial use consisting of industrial warehouse and self-storage buildings that would include additional employees in the area, and these positions would be expected to be filled by Chula Vista residents and others in the surrounding area. Because the project is not residential it would not generate direct population or housing growth and the relatively small employment growth associated with the project would be consistent with SANDAG's employment forecast and the City's General Plan. Therefore, the project is consistent with the RAQS.

[6] SANDAG Regional Growth Forecast appendix-f---regional-growth-forecast-and-scs-land-use-pattern.pdf (sdforward.com).

7.0 Greenhouse Gas Impact Analysis

7.1 Construction Greenhouse Gas Emissions Impact

The greenhouse gas emissions from project construction equipment and worker vehicles are shown in Table 10. The emissions are from all phases of construction. As the City has not established thresholds for construction-related GHG emissions, construction-related emissions are amortized over a 30-year period in conjunction with the proposed project's operational emissions as recommended by Association of Environmental Professionals (AEP 2016).

The total construction emissions amortized over a period of 30 years are estimated at 36.63 metric tons of CO_2e per year. Annual CalEEMod output calculations are provided in Appendix A.

Table 10: Estimated Annual Construction Greenhouse Gas Emissions[1]

Year	Metric Tons Per Year					
	Bio-CO2	NBio-CO2	Total CO2	CH4	N20	CO2e (MT)[2]
2023	0.00	380.00	380.00	0.02	0.01	384.00
2024	0.00	570.00	570.00	0.03	0.03	579.00
2025	0.00	134.00	134.00	0.01	0.01	136.00
Total	0.00	1084.00	1084.00	0.06	0.05	1099.00
					Annualized Construction Emissions[3]	36.63

Notes:
1. Source: CalEEMod output (Appendix A)
2. $MTCO_2e$=metric tons of carbon dioxide equivalents (includes carbon dioxide, methane and nitrous oxide).
3. The emissions are averaged over 30 years per recommendations by AEP (2016).

7.2 Operational Greenhouse Gas Emissions Impact

Operational emissions occur over the life of the project. Table 11 shows that the total for the proposed project's emissions (baseline emissions without credit for any reductions from sustainable design and/or regulatory requirements) would be 8,573.93 metric tons of CO_2e per year. Therefore, as the total emissions for the proposed project would not exceed the SCAQMD draft Tier 3 industrial threshold of 10,000 MT of CO2e per year, impacts are considered to be less than significant.

<Table 11, next page>

Table 11: Opening Year Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)[1]						
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**R**	**CO_2e**
Area Sources[2]	0.00	4.37	4.37	0.00	0.00	0.00	4.50
Energy Usage[3]	0.00	648.00	648.00	0.04	0.00	0.00	650.00
Mobile Sources[4]	0.00	5,998.00	5,998.00	0.31	0.80	6.61	6,251.00
Solid Waste[5]	25.10	0.00	25.10	2.51	0.00	0.00	87.80
Water[6]	22.00	127.00	149.00	2.26	0.05	0.00	224.00
Refrigerants	0.00	0.00	0.00	0.00	0.00	1,320.00	1,320.00
Subtotal Emissions	47.10	6,777.37	6,824.47	5.12	0.85	1,326.61	**8,537.30**
						Amortized Construction Emissions[7]	**36.63**
						Total Emissions	**8,573.93**
						Threshold	**10,000**
						Exceeds Threshold?	**No**

Notes:
[1] Source: CalEEMod Version 2022.1
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
[3] Energy usage consist of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Construction GHG emissions based on a 30 year amortization rate.

7.3 Greenhouse Gas Plan Consistency

The proposed project could have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. The project's GHG impacts are evaluated by assessing the project's consistency with applicable statewide, regional, and local GHG reduction plans and strategies.

The Office of Planning and Research (OPR) encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. The City has adopted the City of Chula Vista CAP which encourage and require applicable projects to implement energy efficiency measures. In addition, the California Climate Action Report (CAT) Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05. On a statewide level, the 2008 Climate Change Scoping Plan provides measures to achieve AB 32 targets. On a regional level, the SANDAG's Regional Plan contains measures to achieve VMT reductions required under SB 375. Thus, if the project complies with these plans, policies, regulations, and requirements, the project would result in a less than significant impact because it would be consistent with the overarching state, regional, and local plans for GHG reduction.

A consistency analysis is provided below and describes the project's compliance with or exceedance of performance-based standards included in the regulations outlined in the applicable portions of the City of Chula Vista CAP, 2008 and 2017 Climate Change Scoping Plan, and SANDAG's Regional Plan.

City of Chula Vista CAP Consistency Analysis

The focus of the City's updated CAP included promoting energy- and water-efficient buildings, smart growth and clean transit, zero waste policies, and increased local energy generation and water resources. Table 12 summarizes reduction strategies from the CAP and evaluates project consistency with each strategy. As shown in Table 12, as many of the CAP reduction strategies would be implemented directly by the City, they are not applicable to individual development projects. The project would be consistent with all applicable CAP reduction strategies; therefore, the project would not conflict with the CAP.

Table 12: Project Consistency with the City of Chula Vista Climate Action Plan

Category	Reduction Strategy	Project Consistency
Water Conservation & Reuse		
Water Education and Enforcement	Expand education and enforcement targeting landscape water waste.	Not applicable. The project would not impede the City's efforts to expand education or enforcement targeting landscaping water waste.
Water Efficiency Upgrades	Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.	Not applicable. The project would not impede the City's efforts to update the City's Landscape Water Conservation Ordinance.
	Require water-saving retrofits in existing buildings at a specific point in time.	Not applicable. The project does not include the re-use of existing buildings and would not impede the City's efforts to require water-saving retrofits in existing buildings.
Water Reuse Plan & System Installations	Develop a Water Reuse Master Plan to maximize the use of storm water, graywater, and onsite water reclamation.	Not applicable. The project would not impede the City's efforts to develop a Water Reuse Master Plan.
	Streamline complex graywater system's permit review.	Not applicable. The project would not impede the City's efforts to streamline permit review for graywater systems.
Waste Reduction		
Zero Waste Plan	Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban the City's efforts.	Not applicable. The project would not impede the City's efforts to develop a Zero Waste Plan.
Renewable & Energy Efficient		
Energy Education & Enforcement	Expand education targeting key community segments and facilitating energy performance disclosure.	Not applicable. The project would not impede the City's efforts to expand energy education and performance disclosure.

	Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.	Not applicable. The project would not impede the City's efforts to distribute energy related information
Clean Energy Sources	Incorporate Solar Photovoltaic into all new residential and commercial buildings.	Not applicable. The project is an industrial project and would not impede the City's efforts to adopt pre-wiring standards or to develop a solar photovoltaic requirement in residential and commercial buildings.
	Provide more grid-delivered clean energy through Community Choice Aggregation or other mechanism.	Not applicable. The project would not impede the City's efforts to provide grid-delivered clean energy.
Energy Efficiency Upgrades	Expand the City's "cool roof" standards to include re-roofs and western areas.	Not applicable. The project would not impede the City's efforts to revise the City's "cool roof" standards to include re-roofs and western areas.
	Facilitate more energy upgrades in the community through incentives, permit streamlining and education.	Not applicable. The project would not impede the City's efforts to facilitate energy upgrades in the community.
	Require energy-savings retrofits in existing buildings at a specific point in time.	Not applicable. The project would not impede the City's efforts to require energy savings retrofits in existing buildings.
Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality.	Consistent. The project will be required to plant shade trees within the parking lot, along the project perimeter, etc. as per specifications identified within the City's Municipal Code for industrial uses.
Smart Growth & Transportation		
Complete Streets & Neighborhoods	Incorporate "Complete Streets" principles into municipal capital projects and plans.	Not applicable. The project would not impede the City's efforts to improve municipal capital projects and plans.
	Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	Not applicable. The project would not impede the City's efforts to construct additional high density and mixed-use development in Smart Growth areas.

Transportation Demand Management	Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings.	Consistent. The project would not impede the City's efforts to develop Transportation Demand Management and congestion management offerings. Furthermore, the project site is located in close proximity to existing transit stops, with stops located as close as approximately 1 mile west of the project site. The project will provide 15 lockers for bicycle storage onsite,
	Expand bike-sharing, car-sharing, and other "last mile" transportation options.	Consistent. The project would not impede the City's efforts to develop Transportation Demand Management and congestion management offerings. Furthermore, the project site is located in close proximity to existing transit stops, with stops located as close as approximately 1 mile west of the project site and would have 15 bicycle parking stalls onsite.
Alternative Fuel Vehicle Readiness	Support the installation of more local alternative fueling stations.	Consistent. The project would not impede the City's efforts to install more local alternative fueling stations.
	Designate preferred parking for alternative fuel vehicles.	Consistent. The project will designate 8 percent of parking to clean air vehicles and 6 percent to electric vehicle charging. The project would be designed to comply with 2019 CalGreen requirements for provisions of electric vehicle charging equipment a minimum.
	Design all new residential and commercial buildings to be "Electric Vehicle Ready."	Consistent. The project is not a residential or commercial use; however, it would be designed to comply with 2019 CalGreen requirements for provisions of electric vehicle charging equipment.

Notes:
[1] Source: Chula Vista Climate Action Plan, September 2017.

Consistency with SANDAG's San Diego Forward: the Regional Plan

Regarding consistency with SANDAG's Regional Plan, the proposed project would include site design elements and Project Design Features (PDFs) developed to support the policy objectives of the RTP and SB 375.

Table 13 illustrates the proposed project's consistency with all applicable goals and policies of the Regional Plan (SANDAG 2021).

Table 13: Project Consistency with San Diego Forward: The Regional Plan[1]

Category	Policy Objective or Strategy	Consistency Analysis
The Regional Plan - Policy Objectives		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	Consistent. The proposed project is be located near MTS bus route 703/704 and Interstate 805.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	Consistent. The proposed project would not impair SANDAG's ability to employ new technologies to make travel more reliable and convenient.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	Consistent. The proposed project is surrounded by existing industrial development and would be located close to major urban centers. Furthermore, the proposed project would also be a source of employment.
Habitat and Open Space Preservation	Protect and restore our region's urban canyons, coastlines, beaches, and water resources.	Consistent. The proposed project would not impair the ability of SANDAG to protect and restore urban canyons, coastlines, beaches, and water resources. Furthermore, the proposed project is located in an already developed area. The project is providing habitat mitigation and restoration of open space areas
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	Not Applicable. The proposed project would not impair the ability of SANDAG to invest in transportation projects available to all members of the Community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	Consistent. The project proposes the development of the site with industrial and self-storage buildings in close proximity to other

		industrial uses and near Interstate 805.
Partnerships/Collaboration	Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that connects to the mega-region and national network, works for everyone, and fosters a high quality of life for all.	Consistent. The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations. As well, under AB 52 collaboration with Native American tribes did occur.
Partnerships/Collaboration	As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.	Not Applicable. The proposed project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico.
Healthy and Complete Communities	Create great places for everyone to live, work, and play.	Consistent. The proposed project is an industrial project with a current land use designation of Limited Industrial (IL) according to the City of Chula Vista General Plan Land Use Diagram. The proposed industrial project is located near MTS bus route 703/704 and Interstate 805. The project site is also surrounded by existing industrial uses.
Healthy and Complete Communities	Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.	Consistent. The proposed project is an industrial and self-storage project located near MTS bus route 703/704 and Interstate 805. The project site is also surrounded by existing industrial uses.
Environmental Stewardship	Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.	Consistent. The proposed project is an industrial and self-storage project located near MTS bus route 703/704 and Interstate 805.
Environmental Stewardship	Support energy programs that promote sustainability.	Consistent. The proposed project would be in compliance with the current building standards.
Sustainable Communities Strategy - Strategies		
Strategy Number 1	Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.	Consistent. The proposed project would be located close to major urban centers as it is located near MTS bus route 703/704 and Interstate 805 and is surrounded by existing industrial development. Furthermore, the proposed project

		would also be a source of employment.
Strategy Number 2	Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.	Consistent. The proposed project would be located close to major urban centers as it is located near MTS bus route 703/704 and Interstate 805 and is surrounded by existing industrial development.
Strategy Number 3	Invest in a transportation network that gives people transportation choices and reduces greenhouse gas emissions.	Consistent. The proposed project is an industrial and self-storage project located near MTS bus route 703/704 and Interstate 805.
Strategy Number 4	Address the housing needs of all economic segments of the population.	Not Applicable. The proposed project would not impair the ability of SANDAG to address housing needs of all economic segments of the population.
Strategy Number 5	Implement the Regional Plan through incentives and collaboration.	Not Applicable. The proposed project would not impair the ability of SANDAG to implement the Regional Transportation Plan through incentives and collaborations.

Notes:
MTS = San Diego Metropolitan Transit System; SANDAG = San Diego Association of Governments.

[1] Source: SANDAG, 2021.

As shown in Table 13, the proposed project is consistent with all applicable Regional Plan Policy Objectives or Strategies. Impacts would be less than significant.

CARB Scoping Plan Consistency

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

This Scoping Plan calls for an "ambitious but achievable" reduction in California's greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person

by 2020. The state achieved the 2020 goal in 2016 by implementing the nine early action measures listed in Table 14.

In May 2014, CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California's leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California's success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

In November 2017, CARB release the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals, and includes a description of a suite of specific actions to meet the State's 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in the 2017 Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and Trade Program, which constrains and reduces emissions at covered sources.

As the latest, 2017 Scoping Plan builds upon previous versions, project consistency with applicable strategies of both the 2008 and 2017 Plan are assessed in Table 14. As shown in Table 14, the project is consistent with the applicable strategies and would result in a less than significant impact.

Table 14: Project Consistency with CARB Scoping Plan Policies and Measures[1]

2008 Scoping Plan Measures to Reduce Greenhouse Gas Emissions	Project Compliance with Measure
California Light-Duty Vehicle Greenhouse Gas Standards – Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.

Energy Efficiency – Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The project will be compliant with the current Title 24 standards.
Low Carbon Fuel Standard – Develop and adopt the Low Carbon Fuel Standard.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Vehicle Efficiency Measures – Implement light-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Medium/Heavy-Duty Vehicles – Adopt medium and heavy-duty vehicle efficiency measures.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Green Building Strategy – Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code in the CCR. Part 11 establishes voluntary standards, that are mandatory in the 2019 edition of the Code, on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The project will be subject to these mandatory standards.
High Global Warming Potential Gases – Adopt measures to reduce high global warming potential gases.	Consistent. CARB identified five measures that reduce HFC emissions from vehicular and commercial refrigeration systems; vehicles that access the project that are required to comply with the measures will comply with the strategy.
Recycling and Waste – Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	Consistent. The state is currently developing a regulation to reduce methane emissions from municipal solid waste landfills. The project will be required to comply with City programs, such as any City recycling and waste reduction programs, which comply, with the 75 percent reduction required by 2020 per AB 341.
Water – Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The project will comply with all applicable City ordinances and CAL Green requirements.
2017 Scoping Plan Recommended Actions to Reduce Greenhouse Gas Emissions	**Project Compliance with Recommended Action**
Implement Mobile Source Strategy: Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Car regulations.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.

Implement Mobile Source Strategy: At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025 and at least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NOX standard.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement Mobile Source Strategy: Last Mile Delivery: New regulation that would result in the use of low NOX or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	Consistent. These are CARB enforced standards; vehicles that access the project that are required to comply with the standards will comply with the strategy.
Implement SB 350 by 2030: Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.	Consistent. The project will be compliant with the current Title 24 standards.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	Consistent. The project will be required to comply with City programs, such as any City recycling and waste reduction programs, which comply, with the 75 percent reduction required by 2020 per AB 341.

Notes:

[1] Source: CARB Scoping Plan (2008 and 2017)

Therefore, the project will not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Impacts are considered to be less than significant.

8.0 Health Risk Assessment

The on-going operation of the proposed project would generate toxic air contaminant (TAC) emissions from diesel truck emissions. The California Air Pollution Control Officers Association (CAPCOA) has developed TAC health risk assessment guidelines to provide consistent, statewide procedures for preparing the health risk assessments required under the Air Toxics "Hot Spots" Act. The title of these guidelines is CAPCOA Air Toxics "Hot Spots" Program Revised 1992 Risk Assessment Guidelines. The District recommends that lead agencies conduct TAC risk assessments in accordance with the CAPCOA Risk Assessment Guidelines, as supplemented by the District's supplemental guidelines. According CAPCOA guidelines, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 30-year lifetime will contract cancer, based on the use of standard risk-assessment methodology.

The SDAPCD TAC threshold of 10 in one million is defined as the "maximum incremental cancer risk" and is used as the threshold for said project. The nearest sensitive receptors to the project site are the existing single-family residential land uses located approximately 1,425 feet (~435 meters) northeast and 1,430 feet (~436 meters) southwest of the project site.

As stated previously, the proposed project is the development of the site with three industrial buildings totaling 158,418 square feet and one three-story self-storage building totaling 140,802 square feet and, per the traffic study for the Project (Linscott, Law and Greenspan), is anticipated to have approximately 1,549 daily vehicles trips with 200 of the trips anticipated to be truck trips per CalEEMod fleet mix data. Furthermore, as per the project site plan, the industrial buildings are to have a total of five dock-high doors and sixteen grade-level doors for loading activities; however, the associated emissions from those loading docks would not be anticipated to exceed thresholds. Furthermore, truck idling is limited to 5-minutes per Rule 2485.

Finally, the most recent Health Risk Assessment for Proposed Land Use Projects prepared by CAPCOA (July 2009) recommends avoiding siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). A summary of the basis for the distance recommendations can be found in the ARB Handbook Air Quality and Land Use Handbook: A Community Health Perspective.

The industrial buildings proposed as part of the project are to be unrefrigerated warehouses and would, therefore, not include TRUs. In addition, sensitive receptors are located in excess of 1,000 feet from the project site boundaries. Therefore, a quantitative health risk assessment would not be required for said project as emissions are far below thresholds. Significant TAC impacts from the project-related operational DPM sources are not anticipated and no significant long-term operations-related TAC impacts from the proposed project to nearby sensitive receptors would occur.

9.0 References

The following references were used in the preparing this analysis.

Association of Environmental Professionals (AEP)
2016 Final White Paper – Beyond 2020 and Newhall. October 18.

California Air Pollution Control Officers Association
2009 Health Risk Assessments for Proposed Land Use Projects

California Air Resources Board
2005 Air Quality and Land Use Handbook: A Community Health Perspective. April.

2008 Resolution 08-43

2008 Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act

2008 ARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk – Frequently Asked Questions

2008 Climate Change Scoping Plan, a framework for change.

2011 Supplement to the AB 32 Scoping Plan Functional Equivalent Document

2013 Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities

2014 First Update to the Climate Change Scoping Plan, Building on the Framework Pursuant to AB32, the California Global Warming Solutions Act of 2006. May.

2017 The 2017 Climate Change Scoping Plan, The Strategy for Achieving California's 2030 Greenhouse Gas Target, Draft. October 27, 2017.

2021 Historical Air Quality, Top 4 Summary

California Public Utilities Commission (CPUC)
2021 Renewables Portfolio Standard (RPS) Program. https://www.cpuc.ca.gov/rps/.

City of Chula Vista
2000 Chula Vista CO2 Reduction Plan. Adopted November 14, 2000.

2008 Climate Change Working Group Measures Implementation Plan. July 2008.

2011 Climate Adaptation Strategies Implementation Plans. May 2011.

2014 2012 Greenhouse Gas Inventory.

2017 Chula Vista Climate Action Plan. Adopted September 2017.
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2008 CEQA and Climate: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review

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Intergovernmental Panel on Climate Change (IPCC)
2014 Fifth Assessment Report (AR5), Climate Change 2014: Synthesis Report.

Office of Environmental Health Hazard Assessment
2015 Air Toxics Hot Spots Program Risk Assessment Guidelines

South Coast Air Quality Management District (SCAQMD)
2008 Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October 2008.

2009 Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group 14. November 19, 2009.

San Diego County
2007 County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements: Air Quality. March 19.

2018 County of San Diego Guidelines for Determining Significance Climate change. January 2018.

San Diego Association of Governments (SANDAG)
2015 SANDAG Data Surfer. http://datasurfer.sandag.org/

2016 2016 Regional Transportation Improvement Program

San Diego Air Pollution Control District
2017 Annual Air Quality Monitoring Network Plan 2016. June 30.

2020 "Attainment Status" https://www.sandiegocounty.gov/content/sdc/apcd/en/air-quality-planning/attainment-status.html

San Diego Gas & Electric (SDG&E)

2021 Substitute Sheets to Update Draft 2021 Renewables Portfolio Standard Procurement Plan. September 13, 2021. https://www.sdge.com/sites/default/files/regulatory/SDGE%202021%20Draft%20RPS%20Plan%20Update%20PUBLIC%20VERSION%20for%20posting%20to%20website.pdf.

Appendix A:

CalEEMod Output

Nirvana Chula Vista Self Storage Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Nirvana Chula Vista Self Storage
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	21.8
Location	32.594225066879076, -117.01360107618001
County	San Diego
City	Chula Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6670
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric

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	299	1000sqft	6.87	299,220	0.00	—	—	—
Parking Lot	309	Space	6.44	0.00	150,532	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	54.6	77.3	68.9	0.11	3.40	29.2	32.6	3.13	13.8	17.0	—	12,343	12,343	0.50	0.31	9.31	12,394
Mit.	54.6	77.3	68.9	0.11	3.40	11.6	15.0	3.13	5.44	8.57	—	12,343	12,343	0.50	0.31	9.31	12,394
% Reduced	—	—	—	—	—	60%	54%	—	61%	49%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	14.2	19.9	0.03	0.57	1.38	1.95	0.53	0.34	0.86	—	4,835	4,835	0.22	0.25	0.22	4,914
Mit.	1.84	14.2	19.9	0.03	0.57	1.38	1.95	0.53	0.34	0.86	—	4,835	4,835	0.22	0.25	0.22	4,914
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.36	9.64	13.9	0.02	0.40	2.18	2.59	0.37	0.89	1.27	—	3,442	3,442	0.15	0.17	2.49	3,499
Mit.	4.36	9.64	13.9	0.02	0.40	1.09	1.49	0.37	0.41	0.78	—	3,442	3,442	0.15	0.17	2.49	3,499

% Reduced	—	—	—	—	—	50%	42%	—	54%	38%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.80	1.76	2.54	< 0.005	0.07	0.40	0.47	0.07	0.16	0.23	—	570	570	0.03	0.03	0.41	579
Mit.	0.80	1.76	2.54	< 0.005	0.07	0.20	0.27	0.07	0.07	0.14	—	570	570	0.03	0.03	0.41	579
% Reduced	—	—	—	—	—	50%	42%	—	54%	38%	—	—	—	—	—	—	—

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	7.83	77.3	68.9	0.11	3.40	29.2	32.6	3.13	13.8	17.0	—	12,343	12,343	0.50	0.31	9.31	12,394
2024	1.78	13.4	20.1	0.03	0.51	1.38	1.89	0.47	0.34	0.81	—	4,863	4,863	0.21	0.24	8.09	4,947
2025	54.6	8.45	11.0	0.02	0.36	0.31	0.68	0.33	0.08	0.42	—	2,379	2,379	0.11	0.13	2.11	2,423
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.84	14.2	19.9	0.03	0.57	1.38	1.95	0.53	0.34	0.86	—	4,835	4,835	0.22	0.25	0.22	4,914
2024	1.77	13.5	19.4	0.03	0.51	1.38	1.89	0.47	0.34	0.81	—	4,796	4,796	0.21	0.24	0.21	4,872
2025	1.67	12.6	18.9	0.03	0.45	1.38	1.83	0.41	0.34	0.75	—	4,752	4,752	0.21	0.24	0.20	4,828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.08	9.59	10.4	0.02	0.40	2.18	2.59	0.37	0.89	1.27	—	2,293	2,293	0.10	0.08	1.05	2,319
2024	1.26	9.64	13.9	0.02	0.37	0.97	1.34	0.34	0.24	0.58	—	3,442	3,442	0.15	0.17	2.49	3,499
2025	4.36	2.30	3.39	0.01	0.09	0.21	0.30	0.08	0.05	0.13	—	808	808	0.04	0.04	0.52	821
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	0.20	1.75	1.91	< 0.005	0.07	0.40	0.47	0.07	0.16	0.23	—	380	380	0.02	0.01	0.17	384
2024	0.23	1.76	2.54	< 0.005	0.07	0.18	0.24	0.06	0.04	0.11	—	570	570	0.03	0.03	0.41	579
2025	0.80	0.42	0.62	< 0.005	0.02	0.04	0.05	0.01	0.01	0.02	—	134	134	0.01	0.01	0.09	136

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	7.83	77.3	68.9	0.11	3.40	11.6	15.0	3.13	5.44	8.57	—	12,343	12,343	0.50	0.31	9.31	12,394
2024	1.78	13.4	20.1	0.03	0.51	1.38	1.89	0.47	0.34	0.81	—	4,863	4,863	0.21	0.24	8.09	4,947
2025	54.6	8.45	11.0	0.02	0.36	0.31	0.68	0.33	0.08	0.42	—	2,379	2,379	0.11	0.13	2.11	2,423
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.84	14.2	19.9	0.03	0.57	1.38	1.95	0.53	0.34	0.86	—	4,835	4,835	0.22	0.25	0.22	4,914
2024	1.77	13.5	19.4	0.03	0.51	1.38	1.89	0.47	0.34	0.81	—	4,796	4,796	0.21	0.24	0.21	4,872
2025	1.67	12.6	18.9	0.03	0.45	1.38	1.83	0.41	0.34	0.75	—	4,752	4,752	0.21	0.24	0.20	4,828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.08	9.59	10.4	0.02	0.40	1.09	1.49	0.37	0.41	0.78	—	2,293	2,293	0.10	0.08	1.05	2,319
2024	1.26	9.64	13.9	0.02	0.37	0.97	1.34	0.34	0.24	0.58	—	3,442	3,442	0.15	0.17	2.49	3,499
2025	4.36	2.30	3.39	0.01	0.09	0.21	0.30	0.08	0.05	0.13	—	808	808	0.04	0.04	0.52	821
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.20	1.75	1.91	< 0.005	0.07	0.20	0.27	0.07	0.07	0.14	—	380	380	0.02	0.01	0.17	384
2024	0.23	1.76	2.54	< 0.005	0.07	0.18	0.24	0.06	0.04	0.11	—	570	570	0.03	0.03	0.41	579
2025	0.80	0.42	0.62	< 0.005	0.02	0.04	0.05	0.01	0.01	0.02	—	134	134	0.01	0.01	0.09	136

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.0	39.2	62.2	0.35	0.63	6.62	7.25	0.62	1.42	2.03	284	41,290	41,574	30.9	5.17	8,067	51,954
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.7	41.0	47.7	0.35	0.62	6.66	7.28	0.60	1.43	2.02	284	41,153	41,438	31.0	5.23	7,977	51,747
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.7	40.7	53.8	0.34	0.63	6.62	7.24	0.60	1.42	2.02	284	40,949	41,233	30.9	5.18	8,014	51,565
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.50	7.43	9.82	0.06	0.11	1.21	1.32	0.11	0.26	0.37	47.0	6,780	6,827	5.12	0.86	1,327	8,537

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.95	37.9	48.2	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,542	36,542	1.85	4.81	92.5	38,115
Area	8.96	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	15.0	39.2	62.2	0.35	0.63	6.62	7.25	0.62	1.42	2.03	284	41,290	41,574	30.9	5.17	8,067	51,954
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.80	39.9	46.7	0.34	0.53	6.66	7.19	0.51	1.43	1.93	—	36,459	36,459	1.90	4.88	2.41	37,963
Area	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	12.7	41.0	47.7	0.35	0.62	6.66	7.28	0.60	1.43	2.02	284	41,153	41,438	31.0	5.23	7,977	51,747
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.74	39.5	46.4	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,228	36,228	1.88	4.83	39.9	37,755
Area	7.88	0.05	6.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.4	26.4	< 0.005	< 0.005	—	27.2
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	13.7	40.7	53.8	0.34	0.63	6.62	7.24	0.60	1.42	2.02	284	40,949	41,233	30.9	5.18	8,014	51,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.05	7.20	8.47	0.06	0.10	1.21	1.30	0.09	0.26	0.35	—	5,998	5,998	0.31	0.80	6.61	6,251
Area	1.44	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50
Energy	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	648	648	0.04	< 0.005	—	650
Water	—	—	—	—	—	—	—	—	—	—	22.0	129	151	2.26	0.05	—	224
Waste	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320
Total	2.50	7.43	9.82	0.06	0.11	1.21	1.32	0.11	0.26	0.37	47.0	6,780	6,827	5.12	0.86	1,327	8,537

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.95	37.9	48.2	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,542	36,542	1.85	4.81	92.5	38,115
Area	8.96	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	15.0	39.2	62.2	0.35	0.63	6.62	7.25	0.62	1.42	2.03	284	41,290	41,574	30.9	5.17	8,067	51,954
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.80	39.9	46.7	0.34	0.53	6.66	7.19	0.51	1.43	1.93	—	36,459	36,459	1.90	4.88	2.41	37,963
Area	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	12.7	41.0	47.7	0.35	0.62	6.66	7.28	0.60	1.43	2.02	284	41,153	41,438	31.0	5.23	7,977	51,747
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.74	39.5	46.4	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,228	36,228	1.88	4.83	39.9	37,755
Area	7.88	0.05	6.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.4	26.4	< 0.005	< 0.005	—	27.2
Energy	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	3,916	3,916	0.27	0.02	—	3,928
Water	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351

Waste	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	13.7	40.7	53.8	0.34	0.63	6.62	7.24	0.60	1.42	2.02	284	40,949	41,233	30.9	5.18	8,014	51,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.05	7.20	8.47	0.06	0.10	1.21	1.30	0.09	0.26	0.35	—	5,998	5,998	0.31	0.80	6.61	6,251
Area	1.44	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50
Energy	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	648	648	0.04	< 0.005	—	650
Water	—	—	—	—	—	—	—	—	—	—	22.0	129	151	2.26	0.05	—	224
Waste	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320
Total	2.50	7.43	9.82	0.06	0.11	1.21	1.32	0.11	0.26	0.37	47.0	6,780	6,827	5.12	0.86	1,327	8,537

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

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

Location	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	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.52	1.36	< 0.005	0.07	—	0.07	0.06	—	0.06	—	203	203	0.01	< 0.005	—	204
Dust From Material Movement	—	—	—	—	—	0.75	0.75	—	0.39	0.39	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	0.14	0.14	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.92	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	173	173	0.01	0.01	0.73	175
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
Hauling	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.0	80.0	< 0.005	0.01	0.17	84.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.30	6.30	< 0.005	< 0.005	0.01	6.39
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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.07	3.07	< 0.005	< 0.005	< 0.005	3.22
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.06
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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.53

3.2. Site Preparation (2023) - Mitigated

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

Location	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	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	7.67	7.67	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.52	1.36	< 0.005	0.07	—	0.07	0.06	—	0.06	—	203	203	0.01	< 0.005	—	204

Dust From Material Movement	—	—	—	—	—	0.29	0.29	—	0.15	0.15	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.6	33.6	< 0.005	< 0.005	—	33.7
Dust From Material Movement	—	—	—	—	—	0.05	0.05	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.92	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	173	173	0.01	0.01	0.73	175
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
Hauling	< 0.005	0.11	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	80.0	80.0	< 0.005	0.01	0.17	84.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.30	6.30	< 0.005	< 0.005	0.01	6.39
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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.07	3.07	< 0.005	< 0.005	< 0.005	3.22
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.06
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

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.53

3.3. Grading (2023) - Unmitigated

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

Location	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	3.72	37.3	31.4	0.06	1.59	—	1.59	1.47	—	1.47	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	9.20	9.20	—	3.65	3.65	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	4.19	3.53	0.01	0.18	—	0.18	0.16	—	0.16	—	741	741	0.03	0.01	—	744
Dust From Material Movement	—	—	—	—	—	1.03	1.03	—	0.41	0.41	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.76	0.64	< 0.005	0.03	—	0.03	0.03	—	0.03	—	123	123	< 0.005	< 0.005	—	123

Dust From Material Movement	—	—	—	—	—	0.19	0.19	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	1.06	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	197	197	0.01	0.01	0.84	200
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.04	21.4
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.49	3.49	< 0.005	< 0.005	0.01	3.54
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
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

3.4. Grading (2023) - Mitigated

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

Location	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	3.72	37.3	31.4	0.06	1.59	—	1.59	1.47	—	1.47	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	3.59	3.59	—	1.42	1.42	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	4.19	3.53	0.01	0.18	—	0.18	0.16	—	0.16	—	741	741	0.03	0.01	—	744
Dust From Material Movement	—	—	—	—	—	0.40	0.40	—	0.16	0.16	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.76	0.64	< 0.005	0.03	—	0.03	0.03	—	0.03	—	123	123	< 0.005	< 0.005	—	123
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	1.06	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	197	197	0.01	0.01	0.84	200
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	21.1	21.1	< 0.005	< 0.005	0.04	21.4
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.49	3.49	< 0.005	< 0.005	0.01	3.54
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
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

3.5. 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	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	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.21	3.58	0.01	0.15	—	0.15	0.14	—	0.14	—	652	652	0.03	0.01	—	654
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.59	0.65	< 0.005	0.03	—	0.03	0.03	—	0.03	—	108	108	< 0.005	< 0.005	—	108
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.46	6.64	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,239	1,239	0.06	0.04	5.26	1,259
Vendor	0.05	1.81	0.84	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,267	1,267	0.06	0.18	3.21	1,326
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.51	5.82	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,170	1,170	0.06	0.04	0.14	1,185
Vendor	0.05	1.87	0.87	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,268	1,268	0.06	0.18	0.08	1,324
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.14	0.14	1.60	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	321	321	0.02	0.01	0.62	326
Vendor	0.01	0.51	0.23	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	345	345	0.02	0.05	0.38	360
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.1	53.1	< 0.005	< 0.005	0.10	53.9
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.1	57.1	< 0.005	0.01	0.06	59.7
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

3.6. 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	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	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.21	3.58	0.01	0.15	—	0.15	0.14	—	0.14	—	652	652	0.03	0.01	—	654

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.59	0.65	< 0.005	0.03	—	0.03	0.03	—	0.03	—	108	108	< 0.005	< 0.005	—	108
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.55	0.46	6.64	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,239	1,239	0.06	0.04	5.26	1,259
Vendor	0.05	1.81	0.84	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,267	1,267	0.06	0.18	3.21	1,326
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.51	5.82	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,170	1,170	0.06	0.04	0.14	1,185
Vendor	0.05	1.87	0.87	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,268	1,268	0.06	0.18	0.08	1,324
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.14	1.60	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	321	321	0.02	0.01	0.62	326
Vendor	0.01	0.51	0.23	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	345	345	0.02	0.05	0.38	360
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	53.1	53.1	< 0.005	< 0.005	0.10	53.9
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.1	57.1	< 0.005	0.01	0.06	59.7
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

3.7. Building Construction (2024) - Unmitigated

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

Location	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	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	8.04	9.39	0.02	0.36	—	0.36	0.33	—	0.33	—	1,717	1,717	0.07	0.01	—	1,723
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.47	1.71	< 0.005	0.07	—	0.07	0.06	—	0.06	—	284	284	0.01	< 0.005	—	285
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.42	6.21	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,216	1,216	0.06	0.04	4.88	1,235
Vendor	0.05	1.72	0.80	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,249	1,249	0.05	0.17	3.21	1,306
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.47	5.44	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,148	1,148	0.06	0.04	0.13	1,163
Vendor	0.05	1.78	0.82	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,250	1,250	0.05	0.17	0.08	1,303
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	3.95	0.00	0.00	0.75	0.75	0.00	0.18	0.18	—	830	830	0.04	0.03	1.50	842
Vendor	0.03	1.27	0.58	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	895	895	0.04	0.12	0.99	934
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.72	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	137	137	0.01	0.01	0.25	139
Vendor	0.01	0.23	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	148	148	0.01	0.02	0.16	155
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

3.8. Building Construction (2024) - Mitigated

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

Location	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	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	8.04	9.39	0.02	0.36	—	0.36	0.33	—	0.33	—	1,717	1,717	0.07	0.01	—	1,723
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.47	1.71	< 0.005	0.07	—	0.07	0.06	—	0.06	—	284	284	0.01	< 0.005	—	285
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.53	0.42	6.21	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,216	1,216	0.06	0.04	4.88	1,235
Vendor	0.05	1.72	0.80	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,249	1,249	0.05	0.17	3.21	1,306
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.52	0.47	5.44	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,148	1,148	0.06	0.04	0.13	1,163

Vendor	0.05	1.78	0.82	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,250	1,250	0.05	0.17	0.08	1,303
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	3.95	0.00	0.00	0.75	0.75	0.00	0.18	0.18	—	830	830	0.04	0.03	1.50	842
Vendor	0.03	1.27	0.58	0.01	0.01	0.22	0.23	0.01	0.06	0.07	—	895	895	0.04	0.12	0.99	934
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.72	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	137	137	0.01	0.01	0.25	139
Vendor	0.01	0.23	0.11	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	148	148	0.01	0.02	0.16	155
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

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.33	1.66	< 0.005	0.05	—	0.05	0.05	—	0.05	—	305	305	0.01	< 0.005	—	306

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	50.5	50.5	< 0.005	< 0.005	—	50.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.43	5.10	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,126	1,126	0.06	0.04	0.12	1,141
Vendor	0.05	1.69	0.78	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,228	1,228	0.05	0.17	0.08	1,281
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.25	147
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	156	156	0.01	0.02	0.18	163
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.9	23.9	< 0.005	< 0.005	0.04	24.3
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.9	25.9	< 0.005	< 0.005	0.03	27.0
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

3.10. Building Construction (2025) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.33	1.66	< 0.005	0.05	—	0.05	0.05	—	0.05	—	305	305	0.01	< 0.005	—	306
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	50.5	50.5	< 0.005	< 0.005	—	50.7
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.43	5.10	0.00	0.00	1.06	1.06	0.00	0.25	0.25	—	1,126	1,126	0.06	0.04	0.12	1,141
Vendor	0.05	1.69	0.78	0.01	0.02	0.31	0.33	0.02	0.09	0.10	—	1,228	1,228	0.05	0.17	0.08	1,281
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.66	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.25	147
Vendor	0.01	0.21	0.10	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	156	156	0.01	0.02	0.18	163
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.9	23.9	< 0.005	< 0.005	0.04	24.3
Vendor	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.9	25.9	< 0.005	< 0.005	0.03	27.0
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

3.11. Paving (2025) - Unmitigated

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

Location	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	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.74	< 0.005	0.03	—	0.03	0.02	—	0.02	—	112	112	< 0.005	< 0.005	—	112
Paving	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.5	18.5	< 0.005	< 0.005	—	18.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
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
Hauling	0.02	0.95	0.36	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	726	726	0.04	0.11	1.58	762
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
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
Hauling	0.01	0.99	0.36	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	726	726	0.04	0.11	0.04	761
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.02	10.2
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
Hauling	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	53.7	53.7	< 0.005	0.01	0.05	56.3

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.66	1.66	< 0.005	< 0.005	< 0.005	1.68
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.89	8.89	< 0.005	< 0.005	0.01	9.33

3.12. Paving (2025) - Mitigated

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

Location	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	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.74	< 0.005	0.03	—	0.03	0.02	—	0.02	—	112	112	< 0.005	< 0.005	—	112
Paving	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.5	18.5	< 0.005	< 0.005	—	18.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
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
Hauling	0.02	0.95	0.36	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	726	726	0.04	0.11	1.58	762
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
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
Hauling	0.01	0.99	0.36	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	726	726	0.04	0.11	0.04	761
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.0	10.0	< 0.005	< 0.005	0.02	10.2
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
Hauling	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	53.7	53.7	< 0.005	0.01	0.05	56.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.66	1.66	< 0.005	< 0.005	< 0.005	1.68
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.89	8.89	< 0.005	< 0.005	0.01	9.33

3.13. Architectural Coating (2025) - Unmitigated

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

Location	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	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	54.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.88	9.88	< 0.005	< 0.005	—	9.91
Architectural Coatings	4.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.64	1.64	< 0.005	< 0.005	—	1.64
Architectural Coatings	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	1.16	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	238	238	0.01	0.01	0.89	242
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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.8	16.8	< 0.005	< 0.005	0.03	17.1
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.78	2.78	< 0.005	< 0.005	< 0.005	2.82
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
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

3.14. Architectural Coating (2025) - Mitigated

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

Location	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	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	54.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.88	9.88	< 0.005	< 0.005	—	9.91
Architectural Coatings	4.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.64	1.64	< 0.005	< 0.005	—	1.64
Architectural Coatings	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	1.16	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	238	238	0.01	0.01	0.89	242
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
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.8	16.8	< 0.005	< 0.005	0.03	17.1
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
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.78	2.78	< 0.005	< 0.005	< 0.005	2.82
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
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

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	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	5.48	3.22	36.3	0.08	0.06	2.69	2.75	0.06	0.47	0.53	—	8,157	8,157	0.41	0.30	30.0	8,285
Parking Lot	0.47	34.7	11.9	0.26	0.46	3.92	4.39	0.44	0.94	1.39	—	28,385	28,385	1.44	4.52	62.4	29,830
Total	5.95	37.9	48.2	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,542	36,542	1.85	4.81	92.5	38,115

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	5.34	3.56	34.7	0.08	0.06	2.69	2.75	0.06	0.47	0.53	—	7,784	7,784	0.45	0.32	0.78	7,891
Parking Lot	0.46	36.3	12.1	0.26	0.47	3.96	4.43	0.45	0.95	1.40	—	28,674	28,674	1.45	4.56	1.64	30,072
Total	5.80	39.9	46.7	0.34	0.53	6.66	7.19	0.51	1.43	1.93	—	36,459	36,459	1.90	4.88	2.41	37,963
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.96	0.64	6.29	0.01	0.01	0.49	0.50	0.01	0.09	0.10	—	1,298	1,298	0.07	0.05	2.15	1,318
Parking Lot	0.08	6.56	2.18	0.05	0.08	0.72	0.80	0.08	0.17	0.25	—	4,700	4,700	0.24	0.75	4.46	4,933
Total	1.05	7.20	8.47	0.06	0.10	1.21	1.30	0.09	0.26	0.35	—	5,998	5,998	0.31	0.80	6.61	6,251

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	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	5.48	3.22	36.3	0.08	0.06	2.69	2.75	0.06	0.47	0.53	—	8,157	8,157	0.41	0.30	30.0	8,285
Parking Lot	0.47	34.7	11.9	0.26	0.46	3.92	4.39	0.44	0.94	1.39	—	28,385	28,385	1.44	4.52	62.4	29,830

Total	5.95	37.9	48.2	0.34	0.53	6.62	7.14	0.50	1.42	1.92	—	36,542	36,542	1.85	4.81	92.5	38,115
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	5.34	3.56	34.7	0.08	0.06	2.69	2.75	0.06	0.47	0.53	—	7,784	7,784	0.45	0.32	0.78	7,891
Parking Lot	0.46	36.3	12.1	0.26	0.47	3.96	4.43	0.45	0.95	1.40	—	28,674	28,674	1.45	4.56	1.64	30,072
Total	5.80	39.9	46.7	0.34	0.53	6.66	7.19	0.51	1.43	1.93	—	36,459	36,459	1.90	4.88	2.41	37,963
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.96	0.64	6.29	0.01	0.01	0.49	0.50	0.01	0.09	0.10	—	1,298	1,298	0.07	0.05	2.15	1,318
Parking Lot	0.08	6.56	2.18	0.05	0.08	0.72	0.80	0.08	0.17	0.25	—	4,700	4,700	0.24	0.75	4.46	4,933
Total	1.05	7.20	8.47	0.06	0.10	1.21	1.30	0.09	0.26	0.35	—	5,998	5,998	0.31	0.80	6.61	6,251

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	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	—	—	—	—	—	—	—	—	—	—	—	2,105	2,105	0.12	0.01	—	2,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	404	404	0.02	< 0.005	—	405
Total	—	—	—	—	—	—	—	—	—	—	—	2,509	2,509	0.14	0.02	—	2,518
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2,105	2,105	0.12	0.01	—	2,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	404	404	0.02	< 0.005	—	405
Total	—	—	—	—	—	—	—	—	—	—	—	2,509	2,509	0.14	0.02	—	2,518
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	349	349	0.02	< 0.005	—	350
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	66.9	66.9	< 0.005	< 0.005	—	67.1
Total	—	—	—	—	—	—	—	—	—	—	—	415	415	0.02	< 0.005	—	417

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	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	—	—	—	—	—	—	—	—	—	—	—	2,105	2,105	0.12	0.01	—	2,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	404	404	0.02	< 0.005	—	405
Total	—	—	—	—	—	—	—	—	—	—	—	2,509	2,509	0.14	0.02	—	2,518
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2,105	2,105	0.12	0.01	—	2,112
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	404	404	0.02	< 0.005	—	405
Total	—	—	—	—	—	—	—	—	—	—	—	2,509	2,509	0.14	0.02	—	2,518
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	349	349	0.02	< 0.005	—	350
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	66.9	66.9	< 0.005	< 0.005	—	67.1
Total	—	—	—	—	—	—	—	—	—	—	—	415	415	0.02	< 0.005	—	417

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	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	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
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
Total	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
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
Total	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	233	233	0.02	< 0.005	—	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
Total	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	233	233	0.02	< 0.005	—	234

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	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	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
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
Total	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
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
Total	0.06	1.18	0.99	0.01	0.09	—	0.09	0.09	—	0.09	—	1,407	1,407	0.12	< 0.005	—	1,410
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	233	233	0.02	< 0.005	—	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
Total	0.01	0.22	0.18	< 0.005	0.02	—	0.02	0.02	—	0.02	—	233	233	0.02	< 0.005	—	234

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.13	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Total	8.96	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50
Total	1.44	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.13	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Total	8.96	0.11	13.0	< 0.005	0.02	—	0.02	0.02	—	0.02	—	53.5	53.5	< 0.005	0.01	—	55.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50
Total	1.44	0.01	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.37	4.37	< 0.005	< 0.005	—	4.50

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	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	—	—	—	—	—	—	—	—	—	—	133	760	893	13.6	0.33	—	1,331
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	19.3	19.3	< 0.005	< 0.005	—	19.3
Total	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	133	760	893	13.6	0.33	—	1,331
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	19.3	19.3	< 0.005	< 0.005	—	19.3
Total	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	22.0	126	148	2.26	0.05	—	220
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	3.19	3.19	< 0.005	< 0.005	—	3.20
Total	—	—	—	—	—	—	—	—	—	—	22.0	129	151	2.26	0.05	—	224

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	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	—	—	—	—	—	—	—	—	—	—	133	760	893	13.6	0.33	—	1,331
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	19.3	19.3	< 0.005	< 0.005	—	19.3
Total	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	133	760	893	13.6	0.33	—	1,331
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	19.3	19.3	< 0.005	< 0.005	—	19.3
Total	—	—	—	—	—	—	—	—	—	—	133	779	912	13.6	0.33	—	1,351
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	22.0	126	148	2.26	0.05	—	220
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	3.19	3.19	< 0.005	< 0.005	—	3.20
Total	—	—	—	—	—	—	—	—	—	—	22.0	129	151	2.26	0.05	—	224

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	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	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8

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	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	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	152	0.00	152	15.2	0.00	—	530
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	25.1	0.00	25.1	2.51	0.00	—	87.8

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320

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	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7,974	7,974
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,320	1,320

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	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	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	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	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	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	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	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	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	6/1/2023	6/20/2023	5.00	14.0	—
Grading	Grading	6/20/2023	8/15/2023	5.00	41.0	—
Building Construction	Building Construction	8/15/2023	3/6/2025	5.00	408	—
Paving	Paving	3/7/2025	4/14/2025	5.00	27.0	—
Architectural Coating	Architectural Coating	4/15/2025	5/21/2025	5.00	27.0	—

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	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
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
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	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
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
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	1.07	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	126	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	49.0	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	10.1	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	25.1	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	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	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	1.07	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	126	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	49.0	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT

Paving	Hauling	10.1	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	25.1	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	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

Non-applicable. No control strategies activated by user.

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	448,830	149,610	17,145

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	—	120	21.0	0.00	—
Grading	—	—	123	0.00	—
Paving	0.00	0.00	0.00	0.00	6.56

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	6.56	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	589	0.03	< 0.005
2024	0.00	589	0.03	< 0.005
2025	0.00	589	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	1,349	1,349	1,349	492,561	9,880	9,880	9,880	3,606,194
Parking Lot	200	200	200	72,972	7,997	7,997	7,997	2,918,876

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	1,349	1,349	1,349	492,561	9,880	9,880	9,880	3,606,194
Parking Lot	200	200	200	72,972	7,997	7,997	7,997	2,918,876

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	448,830	149,610	17,145

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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	1,304,586	589	0.0330	0.0040	4,388,697
Parking Lot	250,320	589	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	1,304,586	589	0.0330	0.0040	4,388,697
Parking Lot	250,320	589	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	69,194,625	0.00
Parking Lot	0.00	2,249,575

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	69,194,625	0.00
Parking Lot	0.00	2,249,575

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Unrefrigerated Warehouse-No Rail	281	0.00
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	281	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

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

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

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	7.94	annual days of extreme heat
Extreme Precipitation	2.15	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	1.25	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	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	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	32.3
AQ-PM	66.7
AQ-DPM	25.7
Drinking Water	17.1
Lead Risk Housing	8.52
Pesticides	0.00
Toxic Releases	73.7
Traffic	60.5
Effect Indicators	—
CleanUp Sites	80.3
Groundwater	90.6
Haz Waste Facilities/Generators	60.2
Impaired Water Bodies	23.9
Solid Waste	98.2

Sensitive Population	—
Asthma	15.4
Cardio-vascular	9.73
Low Birth Weights	31.7
Socioeconomic Factor Indicators	—
Education	32.2
Housing	26.2
Linguistic	42.1
Poverty	18.7
Unemployment	79.0

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	80.81611703
Employed	81.6501989
Median HI	85.60246375
Education	—
Bachelor's or higher	69.48543565
High school enrollment	100
Preschool enrollment	33.46593096
Transportation	—
Auto Access	94.58488387
Active commuting	9.611189529
Social	—
2-parent households	74.48992686

Voting	48.96702169
Neighborhood	—
Alcohol availability	87.74541255
Park access	40.52354677
Retail density	23.73925318
Supermarket access	18.94007443
Tree canopy	11.60015398
Housing	—
Homeownership	86.3852175
Housing habitability	76.58154754
Low-inc homeowner severe housing cost burden	47.5426665
Low-inc renter severe housing cost burden	58.92467599
Uncrowded housing	55.19055563
Health Outcomes	—
Insured adults	76.54305146
Arthritis	96.6
Asthma ER Admissions	78.5
High Blood Pressure	96.7
Cancer (excluding skin)	89.7
Asthma	96.9
Coronary Heart Disease	97.4
Chronic Obstructive Pulmonary Disease	98.1
Diagnosed Diabetes	85.5
Life Expectancy at Birth	69.9
Cognitively Disabled	91.4
Physically Disabled	96.9
Heart Attack ER Admissions	88.9

Mental Health Not Good	82.3
Chronic Kidney Disease	93.4
Obesity	85.2
Pedestrian Injuries	40.3
Physical Health Not Good	93.9
Stroke	96.9
Health Risk Behaviors	—
Binge Drinking	24.0
Current Smoker	85.1
No Leisure Time for Physical Activity	70.0
Climate Change Exposures	—
Wildfire Risk	0.5
SLR Inundation Area	0.0
Children	4.8
Elderly	96.9
English Speaking	68.3
Foreign-born	67.1
Outdoor Workers	53.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	40.1
Traffic Density	60.0
Traffic Access	23.0
Other Indices	—
Hardship	27.0
Other Decision Support	—
2016 Voting	60.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	32.0
Healthy Places Index Score for Project Location (b)	77.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
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

Measure Title	Co-Benefits Achieved
CCD-1: Consult Pre-existing Community Knowledge/Priorities	Social Equity
IE-4: Inclusive Community Meetings	Social Equity
IE-5: Provide Education on Essential Topics Related to Project	Social Equity
A-5: Public Disclosure of Project Commitments	Social Equity
CE-1: Create a Construction Plan with Community Input	Social Equity
CE-2: Ensure Active Modes Access During Construction	Energy and Fuel Savings, Enhanced Pedestrian or Traffic Safety, Improved Public Health, Social Equity, VMT Reductions
CE-3: Post a Clear, Visible Enforcement and Complaint Sign	Social Equity

7.5. Evaluation Scorecard

This table summarizes the points earned for each health and equity measure category, and the total possible points for each category. If N/A is selected for any measure(s), the total possible points in that category are reduced accordingly. The points for each category are then weighted on a 15-point scale to determine the score per category and a total weighted score.

Category	Number of Applicable Measures	Total Points Earned by Applicable Measures	Max Possible Points	Weighted Score
Community-Centered Development	5.00	1.00	25.0	0.57
Inclusive Engagement	6.00	4.00	30.0	1.90

Accountability	5.00	5.00	25.0	2.86
Construction Equity	6.00	10.0	30.0	4.76
Public Health and Air Quality	4.00	0.00	20.0	0.00
Inclusive Economics & Prosperity	4.00	0.00	20.0	0.00
Inclusive Communities	4.00	0.00	20.0	0.00
Total	34.0	20.0	170	10.1

Based on the weighted score of 10 out of a total 170 possible points, your project qualifies for the Acorn equity award level.
Organization(s) consulted by the user to complete the Health & Equity Scorecard:

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Per site plan
Construction: Construction Phases	Proportionally adjusted for 24 month construction schedule
Operations: Vehicle Data	1,549 trips per day per traffic analysis. 200 trips to be from trucks, shown separately under Parking Lot to account for a 40-mile trip length.
Operations: Fleet Mix	Truck trips separated to account for different trip lengths

Appendix B:

Cumulative Project List

Nirvana Cumulative Project List

1. **Project Site** – 821 Main Street – Nirvana Business Park – located 5,000 feet to the east – Design Review – DR21-0024 for the review of the site plan and the three proposed warehouse buildings, and the self-storage building. Building 1 is proposed as 59,044 square feet, Building 2 is proposed as 44,592 square feet, Building 3 is proposed as three-stories 140,802 square feet for self-storage, and building 4 is proposed as 50,030 square feet. A Tentative Parcel Map – TPM21-0003 is also proposed to subdivide the 13.31-acre property into four (4) parcels, one for each of the buildings. The four parcels' public right-of-way is provided via a private access easement to Nirvana Avenue.

2. 1810 Main Court – In-N-Out Restaurant.

3. 1891 Nirvana Avenue – Cannabis Dispensary – Conditional Use Permit to allow the operation of a storefront retail cannabis business within an existing 3,221 sq. ft. industrial building on a 1.05-acre site located within the General Industrial (I) zone.

4. NWC Heritage/Santa Maya – Escaya Industrial – Design Review Permit to allow the construction of three industrial shell buildings. The site is in the Otay Ranch Village 3 Sectional Planning Area (SPA) and has a zoning designation of Industrial (I) and a General Plan designation of Limited Industrial (IL).

5. 1855 Maxwell Road – CV School District Vehicle Repair Shop – Design Review to construct a proposed one-story, 15,500 sq. ft. building for vehicle repair of school buses and office space for the Chula Vista Elementary School District.

6. 517 Shinohara – Shinohara Business Center – DR21-0032 – To develop a 178,156 square-foot single-story industrial building for warehousing and office uses on a vacant 9.72-acre parcel. Hours of operation are proposed as a 24-hour operation, seven days a week, with 3 varying shifts. The subject site is zoned ILP (Limited Industrial Precise Plan) and a General Plan designation of IL (Limited Industrial). The project will include one entitlement for a Design Review DR21-0032 and a Mitigated Negative Declaration with Mitigation Measures and Reporting Program IS21-0006, subject to review and approval by the Planning Commission of the City of Chula Vista.

7. 750 Main Street – Maxwell @ Main – Development of 8.21 gross-acre site within the Auto Park East Specific Plan. The project includes a Design Review, a Tentative Tract Map (seven lots), and a Notice of Exemption (under the Auto Park East Specific Plan Mitigated Negative Declaration. The site is General Plan designated IL – Limited Industrial and Zoned (ILP) Limited Industrial and is located within the Auto Park East Specific Plan. The seven commercial buildings proposed are as follows:

- Building A – a 2,551-square-foot drive-through restaurant
- Building B – a 2,164-square-foot drive-through restaurant
- Building C – a 4,446-square-foot retail car wash
- Building D – a 2,400-square-foot drive-through restaurant
- Building E – a gasoline station with a 4,620-square-foot convenience store (with a type 20 off-site beer and wine license) and a 4,596-square-foot canopy covering eight dispensers,
- Building F– a 2,221-square-foot drive-through restaurant
- Building G – a 16,89- square-foot collision (auto-repair) facility

8. 1875 Auto Park Avenue – Mossy Chrysler Dodge Ram & Jeep Chula Vista Showroom & Sales Office – DR20-0025 – Design Review for a two-story, 54,400 square foot building and a detached 1,200 square foot carwash for a Mossy automobile dealership with automotive repair services and associated carwash on approximately 6.51 acres within the Auto Park North Specific Plan.

9. 670 Main Street – BMW – DR17-0031 – Design Review consideration of a two-story, 37,600 sq. ft. building for a BMW auto dealership with auto repair/service and associated carwash on approximately 4.2 acres.

10. 1880 Auto Park Place – Automotive Repair – DR19- 0025 – Design Review consideration of a 27, 821 square-foot building with a 4, 185 square-foot covered entryway for supportive uses to include a vehicle collision and automotive repair facility.