Appendix F

Greenhouse Gas Emissions Technical Report and North Site Remainder Area Technical Report

Greenhouse Gas Emissions Technical Report

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EDH COSTCO PROJECT GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

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APPENDICES

ACRONYMS AND ABBREVIATIONS

Acronym	**Definition**
ACC	Advanced Clean Cars
ACF	Advanced Clean Fleets
ACT	Advanced Clean Trucks
AP-42	United States Environmental Protection Agency's Compilation of Air Pollutant Emission Factors
AR5	Fifth Assessment Report
CAA	Clean Air Act
CalEEMod	California Emission Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
CAP	criteria air pollutant
CARB	California Air Resources Board
CCCC	California Climate Change Center
CEQA	California Environmental Quality Act
CH_4	methane
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
DC	direct current
DWR	Department of Water Resources
EDCAQMD	El Dorado County Air Quality Management District
EDH	El Dorado Hills
EMFAC	EMission FACtors model
EPA	Environmental Protection Agency
EV	electric vehicle
GDF	gasoline dispensing facility
GHG	greenhouse gas
GWP	global warming potential
HFC	hydrofluorocarbon
HVAC	heating, ventilation, and air conditioning
IPCC	Intergovernmental Panel on Climate Change
kW	kilowatt
MSW	municipal solid waste
MT	metric tonnes
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrogen dioxide
OFFROAD	Off-road Emissions Inventory Program model
PCAPCD	Placer County Air Pollution Control District
PG&E	Pacific Gas & Electric
ppm	parts per million
RCP	Representative Concentration Pathway

ACRONYMS AND ABBREVIATIONS *(Continued)*

Acronym	Definition
RTP	Regional Transportation Plan
SACOG	Sacramento Area Council of Governments
TRU	transport refrigeration unit
USEPA	United States Environmental Protection Agency
VMT	vehicle miles traveled
yr	year
ZEV	zero emission vehicle

1. INTRODUCTION

Ramboll Americas Engineering Solutions, Inc. (Ramboll) was retained to prepare a Greenhouse Gas (GHG) Technical Report for the proposed El Dorado Hills (EDH) Costco Project (Project) located north of the Silva Valley Parkway/US 50 interchange in the El Dorado Hills community area of the unincorporated El Dorado County in California. This GHG Technical Report analyzes the GHG impacts of Proposed Project's construction and operational activities. In particular, this report describes the existing setting of the Project site, describes the relevant regulatory setting, discusses the methodology used to evaluate GHG emissions related to the Project, and evaluates potential impacts related to GHG that would be affected as a result of implementation of the Proposed Project.

1.1 Existing Conditions

The Project site is currently vacant grassland with scattered oak trees and seasonal drainage features. There are no permanent structures on the Project site. The southern edge of the property directly abuts the US 50 right-of-way, while the western boundary is adjacent to Clarksville Crossing. An approximate 7.75-acre portion of the northern site is reserved for a planned future extension of Country Club Drive, which is not part of the Proposed Project.

Surrounding land uses include:

- North: Single-family residential uses and Oak Meadow Elementary School
- East: Vacant land, Tong Road, and single-family residential uses
- South: U.S. Highway 50 and Tong Road
- West: Clarksville Crossing roadway, open space, and undeveloped land

1.2 Proposed Project

The 43.26-acre project site is separated into two components: the North Site of approximately 24.83 acres and the South Site of approximately 18.43 acres. A membership-only Costco fuel facility and employee parking would occupy part of the North Site, while the South Site would accommodate the main Costco warehouse retail building and a partially below-grade parking structure. The majority of the North Site is not proposed to include any development as part of the Project.

1.2.1 North Site

On the North Site, approximately 3.29 acres would be developed with a Costco members-only fuel facility and an employee parking area. The remainder of the North Site would include an approximately 13.79-acre out-parcel that would remain undeveloped at this time (North Site Remainder Area). The Costco project proposes no development for the North Site Remainder Area. The future extension of Country Club Drive (County Capital Improvement Project No. 36105008), when constructed by the County, would occupy a portion of the North Site near its northern edge, though the future extension is an independent project proposed by, and to be undertaken by, the County and is not analyzed as a part of the project.

The fuel facility would occupy a generally rectangular footprint near Silva Valley Parkway, and the employee parking would be situated immediately west of the canopy, separated by drive aisles and landscaping.

Site Access and Roadway Improvements

Primary access to the North Site would be provided via a new signalized intersection on Silva Valley Parkway, shared with the South Site's main driveway. A secondary right-in/right-out driveway north of that intersection would separate fueling operations from primary traffic flows. Fuel delivery trucks would enter the northern driveway and exit at the signal to allow safe left turns. Sidewalks, bike lanes, and pedestrian connections would be provided along the North Site's frontage, north of the signalized intersection.

Architecture

The proposed fuel facility includes a steel canopy structure of up to 13,000 square feet, covering four fueling bays with four two-sided dispensers each (32 fueling positions total). A small, up to 200-square-foot controller enclosure would house operational equipment. The canopy design features neutral colors with corporate striping to align with Costco's brand, and recessed LED lighting directing illumination downward.

Construction

Construction for the North Site is anticipated to last approximately 11 months once construction begins, which is currently estimated to be July of 2026. Construction would occur 7 days per week, with construction occurring 7:00 a.m. to 7:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on weekends.

Operations

Fuel facility hours would generally be from 5:00 a.m. to 10:00 p.m. The facility is expected to receive approximately four to five fuel truck deliveries per day. These deliveries would be staged in a striped area north of the canopy. Approximately 70 employee parking spaces would serve Costco employees; circulation is designed to keep fuel facility traffic and employee parking separate.

1.2.2 South Site

The South Site would include up to approximately 165,000 square feet of building area planned to be constructed as a Costco Wholesale Member Warehouse retail store. Within the store, Costco would offer, among other product and services, optical exams and optical sales, hearing aid testing and sales, food service preparation and sales, meat preparation and sales, bakery and sales of baked goods, alcohol sales, and tire sales and installation. Temporary outdoor sales may occur within the portion of the parking area adjacent to the warehouse retail building for seasonal sales, such as Christmas tree sales during the months of November and December. The warehouse retail building is proposed to include one customer entrance to the main Costco store, which would be located at the northwest corner of the building. The tire center would have bay doors accessible from outside of the warehouse retail building, though the tire center sales area would be accessible through the building. A promotional vehicle may be on display near the customer entrance to the building. This vehicle would be used to promote online or off-site vehicle sales; no vehicles are proposed to be sold onsite. The South Site would also include a parking structure and surface parking, which are further described below. Development on the South Site would exclude the 1.38-acre area located west of Clarksville Crossing where no development is proposed.

The South Site has been designed to use the existing slope of the site by locating the Costco warehouse retail building in the southeast corner of the site, where the elevation of existing streets adjacent to the site are the highest. Parking would be provided in two at-grade parking lots and one subterranean (below-grade) parking lot structure beneath one of the at-grade lots. Vehicle access to this lower-level parking structure would be provided by a ramp on the north side of the structure from Clarksville Crossing and a ramp on the south side of the structure from the above at-grade parking lot. The below-grade parking structure would include approximately 200 to 230 spaces. A pedestrian ramp and elevators would provide pedestrian access from the below-grade level up to the at-grade parking and entry to the warehouse retail building. The below-grade parking structure and at-grade parking lots together would include approximately 750 to 780 spaces in total parking to serve the South Site.

Site Access and Roadway Improvements

The primary entrance to the South Site would be from the new signalized intersection with Silva Valley Parkway (shared with the North Site). Northbound traffic on Silva Valley Parkway would have a left-turn pocket into Clarksville Crossing, and three driveways off Clarksville Crossing would provide direct access to the South Site. A partial traffic signal would be installed at the intersection of Silva Valley Parkway and Clarksville Crossing. In the future, when Country Club Drive is extended by the County, Clarksville Crossing's connection to Silva Valley Parkway and the traffic signal would be removed. A public access road would be developed on the South Site within the remainder parcel that was taken by the County in connection with the development of Tong Road. A maintenance agreement between the County and Costco would be created to address the maintenance of the new public access road.

Delivery truck access would be allowed at all driveway locations depending on the size of the delivery truck and direction of travel for both the North Site and South Site. Most trucks delivering to the warehouse retail building would access the site at the southwest driveway on Clarksville Crossing near the receiving docks.

Architecture

The warehouse retail building design for the South Site is proposed to be contemporary and would include a variety of massing and appropriate materials for the building. By combining concrete masonry block and architectural metal panels, Costco intends to create a scale and architectural interest to minimize the visual impact of a large retail warehouse retail building. By use of design techniques such as the location of building materials, landscaping, and the incorporation of varying parapet cap heights, Costco proposes to break the long elevations both horizontally and vertically at the appropriate height to conceal roof top mounted mechanical equipment. The proposed colors are warm natural earth tones, which would relate to the proposed surrounding development by utilizing similar building materials and architectural detailing. The tire center would be integrated into the main building, with exterior bay doors and interior retail access for sales and service. Pedestrian entries (main and employee) would be oriented to the northwest for customer convenience and the tire center from the other warehouse retail building operational areas.

The South Site truck loading dock is proposed to be located at the southwest corner of the building adjacent to US 50. The bay doors would be equipped with sealed gaskets to limit noise impacts. A smaller on-grade door would also be located on the south side of the building. This door is to receive bread deliveries and small delivery vans/trucks.

A transformer and two trash compactors would also be located along the south edge of the building proposed for the South Site. Landscape material would provide screening of this area.

Parking, Circulation, and Loading

Two at-grade lots and one below-grade lot together provide approximately 750 to 780 parking stalls. Access to the South Site would consist of a signalized intersection on Silva Valley Parkway, as well as driveways provided along Clarksville Road. These driveways would provide customer access to both at-grade and below-grade parking stalls. Delivery trucks would access sealed loading docks at the building's southwest corner.

Construction

As with the North Site, construction for the South Site is anticipated to last approximately 11 months once construction begins, which is currently estimated to be July of 2026. Construction would occur 7 days per week, with construction occurring 7:00 a.m. to 7:00 p.m. on weekdays and 8:00 a.m. to 5:00 p.m. on weekends. In addition to these construction hours, it is anticipated that there would be up to 8 days of nighttime construction activities involving concrete pours for the building foundation.

Operations

The warehouse retail building is proposed to include one member entrance to the main Costco store, which would be located at the northwest corner. The EDH Costco is expected to include, among other features, a bakery and sales of baked goods, meat preparation and sales, alcohol sales, food service preparation and sales, pharmacy, optical center with optical exams and retail optical sales, hearing aid testing center, and food court, along with the sales of approximately 4,000 products. The warehouse retail building would include a five-bay tire center with member access via the inside of the main Costco building, which would include tire sales and a tire installation facility.

It is anticipated that the El Dorado Hills Costco project (warehouse retail building and fuel facility) would employ approximately 250 to 300 employees combined. The warehouse retail building would in general be open from 9:00 a.m. to 8:30 p.m. on weekdays and 9:00 a.m. to 7:00 p.m. on weekends. Costco anticipates an average of about 10 to 12 trucks delivering goods per day. The trucks range in size from 26 feet long for single-axle trailers to 70 feet long for double-axle trailers. Receiving time would be from 2:00 a.m. to 1:00 p.m., averaging 2 to 3 trucks per hour, with most of the deliveries completed before 10:00 a.m. Deliveries to the warehouse retail building are made primarily in Costco trucks from its freight consolidation facility in Tracy, California, coming to the site from eastbound US 50. Truck travel routes would use Silva Valley Parkway (from US 50 to Clarksville Road), Clarksville Road (from White Rock Road to Silva Valley Parkway), future Country Club Drive extension west of the South Site to access Clarksville Road, and White Rock Road (from Clarksville Road to US 50).

The tire center receives shipments of tires once or twice a week, with old tires transported offsite for recycling. Seasonal outdoor sales of items such as Christmas trees may occur in the parking area. In addition, promotional vehicle displays may appear outside, but no on-site vehicle sales would occur.

Energy Efficiency Features

As noted above, the South Site would obtain electrical and natural gas services from Pacific Gas & Electric (PG&E). The development would comply with energy efficiency standards under California Code of Regulations Title 24. Additional energy efficiency and sustainability measures incorporated into the Costco project are noted below.

- Parking lot light standards would be designed in order to provide even light distribution, and utilize less energy compared to a greater number of fixtures at lower heights. The use of LED lamps can provide a higher level of perceived brightness with less energy than other lamps such as high-pressure sodium.
- New and renewable building materials would typically be extracted and manufactured within the region. When masonry and concrete are used, the materials purchased would be local to the Project, minimizing the transportation distances and impact to local road networks.
- The use of pre-manufactured building components, including structural framing and metal panels, would help to minimize waste during construction.
- Pre-manufactured metal wall panels with insulation carry a higher R-Value and greater solar reflectivity to help conserve energy as compared to other materials. Building heat absorption would be further reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall.
- A substantial amount of the proposed landscaping material for the North Site and South Site is climate adapted to the region and would use less water than other common landscape species.
- The irrigation system proposes to include the use of deep root watering bubblers for parking lot trees to minimize usage and ensure that water goes directly to the intended planting areas.
- Storm water management plans are designed to maintain water quality, minimize erosion, and manage storm water discharge rates based on the County requirements.
- High-efficiency restroom fixtures would be installed.
- Commissioning of mechanical systems would occur to ensure that the heating, ventilation, and air conditioning (HVAC) systems are performing as designed. HVAC comfort systems would be controlled by a computerized building management system to maximize efficiency.
- HVAC units planned for the South Site are high-efficiency direct ducted units, which have phased out the use of hydrochlorofluorocarbons completely.
- Parking lot and exterior lights would be controlled by a photo sensor and time clock.
- 10 electric vehicle (EV) chargers with direct current (DC) fast chargers would be installed.
- Lighting would be controlled by the overall project energy management system.
- Energy efficient Transformers (i.e., Square D Type EE transformers) would be used.
- Variable speed motors would be used on make-up air units and booster pumps.

- Gas water heaters would be direct vent and 94 percent efficient or greater.
- Reclaim tanks would be used to capture heat released by refrigeration equipment to heat domestic water in lieu of venting heat to the outside.
- The building structure would be a pre-engineered system that uses 100 percent recycled steel materials and would be designed to minimize the amount of material used.
- Construction waste would be recycled whenever possible.
- Floor sealant would be No-volatile organic compound and would represent over 80 percent of the floor area.
- Carbon dioxide (CO_2) would be monitored throughout the warehouse.
- Extensive recycling/reuse program would be implemented including tires, cardboard, grease, plastics, and electronic waste.
- Use of plastic shopping bags would be avoided.
- Suppliers would be required to reduce packaging and consider alternative packaging solutions.
- Distribution facilities would be strategically located to minimize miles traveled for delivery.
- Deliveries would be made in full trucks.
- All Costco trucks would be equipped with an engine idle shut off timers.
- 100 percent renewable electrical power will be supplied by PG&E, as Costco has a Clean Energy Contract with PG&E.

2. SCIENTIFIC BACKGROUND

2.1 Science of Global Climate Change

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass traps heat in a greenhouse. The Earth's climate is changing because human activities, primarily the combustion of fossil fuels, are altering the chemical composition of the atmosphere through the buildup of GHGs. GHGs allow the sun's radiation to penetrate the atmosphere and warm the Earth's surface, but do not let the infrared radiation emitted from the Earth escape back into outer space. As a result, global temperatures are predicted to increase over the century. In particular, if climate change remains unabated, surface temperatures in California are expected to increase anywhere from 4.1 to 8.6 degrees Fahrenheit by the end of the century. Not only would higher temperatures directly affect the health of individuals through greater risk of dehydration, heat stroke, and respiratory distress, the higher temperatures may increase ozone formation, thereby worsening air quality. Rising temperatures could also reduce the snowpack, which would increase the risk of water shortages. Higher temperatures along with reduced water supplies could reduce the quantity and quality of agricultural products. In addition, there could be an increase in wildfires and a shift in distribution of natural vegetation throughout the State. Global warming could also increase sea levels and coastal storms resulting in greater risk of flooding.

Emissions of CO_2 are the leading cause of global warming, with other pollutants such as methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons, and sulfur hexafluoride also contributing. The magnitude of the impact on global warming differs among the GHGs. For example, HFCs, perfluorocarbons, and sulfur hexafluoride have a greater "global warming potential" than CO_2. In other words, these other GHGs have a greater contribution to global warming than CO_2 on a per mass basis. The effect each GHG has on climate change is measured as a combination of the volume of its emissions and its global warming potential (GWP) and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of megagrams or metric tonnes (MT) of carbon dioxide equivalent (CO_2e). CO_2 has the greatest impact on global warming because of the relatively large quantities of CO_2 emitted into the atmosphere.

Globally, CO_2 concentrations, which ranged from 265 parts per million (ppm) to 280 ppm over the last 10,000 years, only began rising in the last 200 years to current levels of 410 ppm,[1] a 46 percent increase.

In 2022, the United States emitted about 6.3 billion MT of CO_2e or about 19 MT/person/year, calculated by dividing the emissions total by the U.S. Census Bureau population estimate for

[1] Intergovernmental Panel on Climate Change (IPCC). Climate Change 2021, The Physical Science Basis. 2021. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf. Accessed: October 2025.

2022.[2,3] This represents a reduction below 2005 total emission levels of approximately 17 percent. Of the five major sectors nationwide – residential, commercial, industrial, electric power generation, and transportation – transportation accounts for the highest fraction of GHG emissions (approximately 37 percent of emissions from these five sectors). These emissions are entirely generated from direct fossil fuel combustion. Approximately 57 percent of these transportation emissions resulted from passenger car and light-duty truck use. The remaining emissions came from other transportation activities, including the combustion of diesel fuel in medium- and heavy-duty vehicles, and jet fuel in aircraft. According to the Inventory of U.S. Greenhouse Gas Emissions and Sinks,[4] from 1990 to 2022 as a whole, transportation emissions from fossil fuel combustion increased by approximately 19 percent.

In 2022, California emitted approximately 371.1 million tonnes of CO_2e, or about 6 percent of the U.S. emissions.[5] California's percentage contribution is due primarily to the sheer size of California, as compared to other states. For example, in 2022 (the most recent year of state rankings for energy-related CO_2 emissions per capita), California had the third lowest per capita energy-related CO_2 emission rates in the country (including Washington D.C.),[6] due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of emissions growth.[7] Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

California Air Resources Board (CARB) found that transportation is the source of approximately 38 percent of the State's GHG emissions, followed by industrial sources at 20 percent, and electricity generation (both in-state and out-of-state) at 16 percent. Residential and commercial activities comprised approximately 11 percent of the inventory. Agriculture is the source of approximately 8 percent of the State's GHG emissions.[8]

2 USEPA. 2024. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. Available at: https://www.epa.gov/system/files/documents/2024-04/us-ghg-inventory-2024-main-text_04-18-2024.pdf. Accessed: October 2025.

3 U.S. Census Bureau. Annual Estimates of the Resident Population for the United States, Regions, States, District of Columbia, and Puerto Rico for 2022: April 1, 2020 to July 1, 2022. (NST-EST2022). Available at: https://www2.census.gov/programs-surveys/popest/tables/2020-2022/state/totals/NST-EST2022-POP.xlsx. Accessed: October 2025.

4 USEPA. 2024. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. Available at: https://www.epa.gov/system/files/documents/2024-04/us-ghg-inventory-2024-main-text_04-18-2024.pdf. Accessed: October 2025.

5 CARB. 2024. California Greenhouse Gas Emissions for 2000 to 2022 Trends of Emissions and Other Indicators. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf. Accessed: October 2025.

6 US EIA. 2024. Table 4: Per capita energy-related carbon dioxide emissions by state. Available at: https://www.eia.gov/environment/emissions/state/. Accessed: October 2025.

7 The Center for Resource Efficient Communities. 2013. Residential Energy Use and GHG Emissions Impact of Compact Land Use Types. Report to ARB, Contract No. 10-323. Available at: http://www.arb.ca.gov/research/apr/past/10-323h.pdf. Accessed: October 2025.

8 CARB. 2024. California Greenhouse Gas Emissions from 2000 to 2022: Trends of Emissions and Other Indicators. Available at: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf. Accessed: October 2025.

2.2 Potential Effects of Human Activity on Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. At the end of the 21st century, global surface temperature change is likely to exceed 1.5°C (relative to 1850-1900 levels) in all four assessed climate model projections but one.[9]

The understanding of GHG emissions, particulate matter, and aerosols on global climate trends is complex and involves varying uncertainties and a balance of different effects. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is also evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the Intergovernmental Panel on Climate Change (IPCC), such as the Sixth Assessment Report (AR6) Synthesis Report.[10,11] Nonetheless, when all effects and uncertainties are considered together, there is a strong scientific consensus that human activity has contributed significantly to global warming. As stated in AR6, "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011-2020."[12]

Acknowledging uncertainties regarding the rate at which anthropogenic GHG emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devises emission scenarios which utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century. For the Fifth Assessment Report (AR5), Representative Concentration Pathways (RCPs) were developed to describe four different 21st century scenarios of greenhouse gas emissions, atmospheric concentrations, air pollutant emissions, and land use. The RCPs summarized for the AR5 were used for the five climate change scenarios provided in the AR6.[13] RCPs are based on a combination of

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9 IPCC. Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. SPM.2.2. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: October 2025.

10 The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to assess scientific, technical, and socio-economic information relevant for the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC has produced a series of Assessment Reports comprised of full scientific and technical assessments of climate change. The first assessment report was developed in 1990. The Sixth Assessment Report was completed in August 2021 with the most current Synthesis Report completed in March 2023.

11 IPCC. 2023. Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf. Accessed: October 2025.

12 Ibid.

13 IPCC. 2021. Climate Change 2021, The Physical Science Basis. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport_small.pdf. Accessed: October 2025.

integrated assessment models, simple climate models, atmospheric chemistry, and global carbon cycle models.

- The projected effects of global warming are assessed under each of the five scenarios.[14]
- It is, at a minimum, more likely than not a 1.5ºC increase in globally averaged surface area temperature will occur between 2021-2045 relative to the average over the period of 1850-1900.
- It is virtually certain that global mean sea level will continue to rise through the 21st century.
- It is likely the Arctic Ocean in September, the month of annual minimum sea ice area, will become practically ice free averaged over 2081-2100 and all available simulations.
- It is very likely that the cumulative uptake of carbon by the ocean and by land will increase through the end of the 21st century.

Potential secondary effects from global warming include impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

However, AR6 states, "The uncertainty range on assessed future changes in global surface temperature is narrower than in the AR5" and "For a given level of warming, many climate-related risks are assessed to be higher than in AR5 (high confidence). Levels of risk for all Reasons for Concern are assessed to become high to very high at lower global warming levels compared to what was assessed in AR5 (high confidence). This is based upon recent evidence of observed impacts, improved process understanding, and new knowledge on exposure and vulnerability of human and natural systems, including limits to adaptation".[15]

The IPCC began its seventh assessment cycle in July 2023. The initial Scoping Meeting to prepare the draft outline of the three Working Groups that will contribute to the Seventh Assessment Report took place in December 2024. The Synthesis Report is planned to be released by late 2029.[16]

2.3 Potential Effects of Climate Change on the State of California

According to the CARB, some of the potential impacts in California of global warming may include loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.[17] The California Climate Change Center (CCCC) has released four assessment reports on climate change in California, the most recent in 2018. California's Fourth Climate Change Assessment projects an increase by

[14] IPCC Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: October 2025.

[15] IPCC. 2023. Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Available at: https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_LongerReport.pdf. Accessed: October 2025.

[16] IPCC. Seventh Assessment Report. Available at: https://www.ipcc.ch/assessment-report/ar7/. Accessed: October 2025.

[17] California Air Resources Board (CARB), 2006. Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions, Sacramento, CA. December 1.

5.6-8.8°F from 2070 to 2100 depending on greenhouse gas emission reductions (at a moderate rate or continuing at current rates).[18]

Below is a summary of some of the potential effects reported in an array of studies that could be experienced in California as a result of global warming and climate change.

2.3.1 Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. For other pollutants, the effects of climate change and/or weather are less well studied, and even less well understood.

If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. Studies have been conducted to evaluate the potential impacts of climate change on wildfire frequency based on lower and higher emissions scenarios. Per California's Fourth Climate Change Assessment, under a higher emissions scenario, the average area burned statewide could increase by 77 percent above historic levels by 2100.[19] However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, projected increases in average ambient temperatures could increase annual heat-related deaths by as much as 11,300 in 2050.[20]

It is estimated that over the next decade, higher temperatures could increase the peak demand for electricity during summer months, which could require additional electrical generating capacity in California to meet the State's peak electricity demand.[21] During periods of extreme heat, efficiency of electricity generation is reduced at natural gas plants; hydropower generation is reduced; and increased losses occur at substations; all while electricity demands are increased. California's Third Climate Change Assessment provides projected statewide impacts of elevated ambient temperatures on electricity generation. Specifically, these factors are projected to result in the need for more than 17 gigawatts, or 38 percent of additional capacity, needed by 2100. Additionally, transmission lines lose 7 to 8 percent of transmitting capacity in higher temperatures, which also results in a need for increased power generation.[22]

2.3.2 Water Supply

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. For example, models that predict drier conditions suggest decreased reservoir inflows and storage, and decreased river flows, relative to current

[18] California Climate Change Center, 2018. California's Changing Climate 2018. A Summary of Key Findings from California's Fourth Climate Change Assessment.

[19] Ibid.

[20] Ibid.

[21] Ibid.

[22] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July 2012.

conditions. By comparison, models that predict wetter conditions project increased reservoir inflows and storage, and increased river flows.[23]

The Climate Change Vulnerability Assessment prepared by the California Department of Water Resources (DWR) in 2019 addresses the impacts of climate change on California. Regarding water supply, the assessment states that "As well, the already-stressed Delta ecosystem will be affected simultaneously by changing hydrology that further limits water supply for protected species at key times of year while rising sea level will push saline water further into the Delta."[24] The assessment also notes that efforts are underway to integrate modeling of water supply and flood management systems, but such integrated analysis tools were not available at the time the assessment was prepared.

California's Fourth Climate Change Assessment outlines the State's urgent water management challenges brought on as a result of climate change. These include increasing demand from a growing population as temperatures rise, earlier snowmelt and runoff, and faster-than-historical sea level rise threatening aging coastal water infrastructure and levees in the Sacramento-San Joaquin Delta.[25] Additionally, they predict that competition between urban and agriculture water users and environmental needs will increase due to effects on water supply and stream flows. The Fourth Climate Change Assessment concludes that by 2100, water supply from snowpack is projected to decline by two-thirds, and that by 2050, California's agricultural production could face climate-related water shortages of up to 16 percent in certain regions.[26]

2.3.3 Hydrology

As discussed above, climate change could potentially affect the following: the amount of snowfall, rainfall, and snowpack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide, and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for saltwater intrusion. Sea level rise can be a product of global warming through two main processes – expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could also jeopardize California's water supply. In particular, saltwater intrusion would threaten the quality and reliability of the State's major fresh water supply that is pumped from the southern portion of the Sacramento/San Joaquin River Delta. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events. California's Third Climate Change Assessment provides statewide estimates on sea level rise. Specifically, assuming the rate of sea level rise continues to follow global trends, sea level along California's coastline in 2050 could be 10-18 inches higher than in 2000, and 31-55 inches higher by the end of this century.[27] Based on these current projections, the current 100-year storm could occur once every year. California's Fourth Climate Change Assessment projects that without implementation of

[23] Brekke, L.D., et al, 2004. – Climate Change Impacts Uncertainty for Water Resources in the San Joaquin River Basin, California. Journal of the American Water Resources Association. 40(2): 149–164. Malden, MA, Blackwell Synergy for AWRA.

[24] California Department of Water Resources (DWR), 2019. Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, Sacramento, CA. February.

[25] California Climate Change Center, 2018. California's Changing Climate 2018. A Summary of Key Findings from California's Fourth Climate Change Assessment.

[26] Ibid.

[27] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July 2012.

protective measures, airports in major urban areas will be susceptible to major flooding from a combination of sea level rise and storm surge by 2040 to 2080 and that the miles of highways susceptible to coastal flooding from a 100-year storm will triple from current levels by 2100.[28]

2.3.4 Agriculture

California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. The CCCC notes that higher CO_2 levels can stimulate plant production and increase plant water use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater pest and disease outbreaks. In addition, temperature increases could change the time of year that certain crops bloom and harvest, and thus affect their quality.[29]

2.3.5 Ecosystems and Wildfire

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. In 2019, the California DWR released an assessment examining the possible impacts of climate change on ecosystems and wildlife.[30] The assessment outlines ways in which it is thought that climate change is already affecting and will continue to affect plants and animals: (1) impacts to important life-cycle events (changes in reproduction and migration patterns), (2) decline in some species populations, (3) habitat fragmentation, and (4) invasive species.

On June 12, 2025, President Trump signed into law House Joint Resolution 87, which provides congressional disapproval of the rule submitted by the Environmental Protection Agency (EPA) relating to "California State Motor Vehicle and Engine Pollution Control Standards; Heavy-Duty Vehicle and Engine Emission Warranty and Maintenance Provisions; Advanced Clean Trucks; Zero Emission Airport Shuttle; Zero-Emission Power Train Certification; Waiver of Preemption; Notice of Decision".[31] On the same day the President signed into law House Joint Resolution 88, which provides congressional disapproval of the rule submitted by the EPA relating to "California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption; Notice of Decision".[32]

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[28] California Climate Change Center, 2018. California's Changing Climate 2018. A Summary of Key Findings from California's Fourth Climate Change Assessment.

[29] Ibid.

[30] California Department of Water Resources (DWR), 2019. Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, Sacramento, CA. February.

[31] The White House. 2025. Congressional Bills H.J. Res. 87, H.J. Res. 88, H.J. Res. 89 Signed into Law. June 12. Available at: https://www.whitehouse.gov/briefings-statements/2025/06/congressional-bills-h-j-res-87-h-j-res-88-h-j-res-89-signed-into-law/. Accessed: October 2025.

[32] Ibid.

3. SIGNIFICANCE THRESHOLDS

3.1 CEQA Guidelines on GHG Emissions

Adopted amendments to the California Environmental Quality Act (CEQA) Guidelines do not provide a mandatory, quantitative rubric for GHG emissions analysis, but instead provide general guidance and recognize long-standing CEQA principles regarding the discretion afforded to lead agencies where supported by substantial evidence. More specifically, CEQA Guidelines Section 15064.4(a) recognizes that the "determination of the significance" of GHG emissions "calls for careful judgment by the lead agency" in accordance with the more general provisions of CEQA Guidelines Section 15064; each agency "shall have discretion to determine" whether to conduct quantitative or qualitative analysis, provided its determination is supported by substantial evidence. Section 15064.4 was most recently amended by the Office of Planning and Research and the California Natural Resources Agency in December 2018.

The analysis provided in this report evaluates the significance of the Proposed Project's GHG emissions by reference to the following questions from Section VIII, Greenhouse Gases, of Appendix G of the CEQA Guidelines:

Threshold 1. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.2 Project Approach to Significance

This Greenhouse Gas Technical Report assesses significance of GHG impacts based on Section VIII, Greenhouse Gases, of Appendix G of the CEQA Guidelines.

While El Dorado County provides some basic information on climate change including an overview of GHG regulations and local, state, and national efforts to address climate change, it has not established a quantitative or qualitative guidance to evaluate GHG emission impacts of development projects under CEQA.[33] Additionally, El Dorado County Air Quality Management District (EDCAQMD) has also not set quantitative GHG significance thresholds. In the absence of a quantitative GHG threshold from El Dorado County and EDCAQMD, this Technical Report assessed significance of GHG impacts for Threshold 1 against the Placer County Air Pollution Control District (PCAPCD) GHG significance thresholds (**Table 3-1**), in consultation with EDCAQMD and El Dorado County.

PCAPCD's GHG significance thresholds are reasonable to assess significance in the absence of a quantitative threshold from El Dorado County Air Pollution Control District because Placer County is similar to El Dorado County demographically, geographically, and meteorologically. Both Placer County and El Dorado County have similar land use patterns (i.e., they are both heavily made up of rural and suburban areas), with similar rates of population growth. Additionally, both counties have similar terrain and lie within the same air basin. Because of this, PCAPCD's quantitative GHG thresholds were used to assess significance against the Project relative to Threshold 1.

[33] El Dorado County. Air Quality Planning and Information – Climate Change. Available at: https://www.eldoradocounty.ca.gov/Land-Use/Air-Quality-Management-District/Air-Quality-Planning-and-Information/Climate-Change. Accessed: October 2025.

Relative to Threshold 2, this report evaluates whether the Project would conflict with the 2022 Scoping Plan Update, Sacramento Area Council of Governments' (SACOG's) 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS), and El Dorado County Regional Transportation Plan (RTP) 2020-2040.

4. PROJECT GHG EMISSIONS INVENTORY

This section describes the methodology that Ramboll used to develop the GHG emission inventories associated with the Proposed Project, which include construction emissions and operational emissions. Sub-categories of GHG operational emissions include the following: area sources, energy use, mobile sources, water supply and wastewater, solid waste, refrigerant, ongoing vegetation sequestration changes, and emergency generators.

4.1 Measurement, Resources and Baseline Condition

4.1.1 Units of Measurement: Tonnes of CO_2 and CO_2e

In this report, the term "GHGs" includes gases that contribute to the natural greenhouse effect, such as CO_2, CH_4, N_2O, and water, as well as gases that are only man-made and that are emitted through the use of modern industrial products, such as HFCs and chlorofluorocarbons. GHG emissions are typically measured in terms of mass of CO_2e. CO_2e is calculated as the product of the mass of a given GHG and its specific GWP, as described in **Section 2.1**. GWPs of 25 and 298 were used for CH_4 and N_2O, respectively, for this analysis. In many sections of this report, including the final summary sections, emissions are presented in units of CO_2e either because the GWPs of CH_4 and N_2O were accounted for explicitly, or the CH_4 and N_2O are assumed to contribute a negligible amount of GWP when compared to the GWP of CO_2 emissions.

In this report, a tonne refers to MT (1,000 kilograms). Additionally, exact totals presented in all tables and report sections may not equal the sum of components due to independent rounding of numbers.

4.1.2 Resources

4.1.2.1 CalEEMod Methodology

Ramboll primarily utilized the California Emissions Estimator Model (CalEEMod) version 2022.1[34] methodology to assist in quantifying the GHG emissions in the inventories presented in this report for the Proposed Project. CalEEMod provides methodologies to calculate both construction emissions and operational emissions from a land use development project. It calculates total or annual GHG emissions. Specifically, the model methodology aids the user in the following calculations:

- One-time short-term construction emissions from off-road construction equipment, and on-road worker, vendor, and hauling vehicles during the construction of the project and site access and roadway improvements.
- Operational emissions from direct and indirect GHG sources associated with the Proposed Project built-out condition including on-road vehicles, landscaping equipment, emergency generators, natural gas and electricity use in the buildings, water use, solid waste disposal, refrigerant use, and vegetation sequestration changes.

CalEEMod is a statewide program designed to calculate both criteria air pollutant (CAP) and GHG emissions from development projects in California developed under the auspices of the South Coast Air Quality Management District, with input from other California air districts, and is currently supported by numerous lead agencies for use in quantifying the emissions associated with development projects undergoing environmental review. CalEEMod utilizes

[34] California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimator Model. Available at: https://caleemod.com/. Accessed: October 2025.

widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the United States Environmental Protection Agency (USEPA) AP-42 emission factors,[35] CARB's on-road and off-road equipment emission models such as the EMission FACtors model (EMFAC) and the Off-road Emissions Inventory Program model (OFFROAD), and studies commissioned by California agencies such as the California Energy Commission and California Department of Resources Recycling and Recovery (CalRecycle).

As mentioned above, CalEEMod is based upon the CARB-approved OFFROAD and EMFAC models. OFFROAD[36] is an emission factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment, agricultural equipment). The off-road diesel emission factors used by CalEEMod are based on the CARB OFFROAD2017 program. EMFAC is an emission factor model used to calculate emissions rates from on-road vehicles (including passenger cars to delivery trucks). CalEEMod 2022.1 contains EMFAC2021 emission factors.[37] These emissions factors were then used to estimate mobile source operational emissions based on CalEEMod methodology and defaults along with Project-specific values where available.

In addition, CalEEMod contains default values and existing regulation methodologies to use in each specific local air district region. Appropriate statewide default values can be utilized if regional default values are not defined. Ramboll used default factors for the El Dorado-Mountain County area for the emissions inventory, unless otherwise noted in the methodology descriptions below.

Details regarding the specific methodologies used by CalEEMod can be found in the CalEEMod User's Guide and associated appendices.[38]

4.1.2.2 Other Resources

Ramboll directly or indirectly relied on emissions estimation guidance from government-sponsored organizations, government-commissioned studies of energy use patterns, Project-specific studies (e.g., Kittelson & Associates, Inc's Transportation Analysis[39]), and emission estimation software as described above. In cases noted below, third-party studies were also relied upon to support analyses and assumptions made outside of the approach described above.

[35] The USEPA maintains a compilation of Air Pollutant Emission Factors and process information for several air pollution source categories. The data is based on source test data, material balance studies, and engineering estimates. Available at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors. Accessed: October 2025.

[36] CARB. 2017. Off Road Mobile Source Emission factors. Available at: https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory. Accessed: October 2025.

[37] CARB. 2022. EMFAC2021. Available at: https://arb.ca.gov/emfac/. Accessed: October 2025.

[38] CAPCOA. 2022. California Emissions Estimator Model User's Guide. Version 2022.1. Available at: https://caleemod.com/user-guide. Accessed: October 2025.

[39] Kittelson & Associates. 2025. El Dorado Costco CEQA Analysis. July 23.

4.1.3 Indirect GHG Emissions from Electricity Use

Project-related electricity use results in indirect emissions, due to electricity generation activities occurring at off-site power plant locations. For the Proposed Project, 100% renewable electrical power will be supplied by PG&E, as Costco has a Clean Energy Contract with PG&E. Hence, there will be zero indirect GHG emissions generated by Project-related electricity use.

4.2 Construction Emissions

This section describes the estimation of GHG emissions from construction activities at the Proposed Project site. While the exact construction schedule and equipment mix may vary from the current analysis, the GHG emissions are not expected to be higher than that calculated given the conservative assumptions included in this analysis.

This analysis includes estimation of GHG emissions from the following major construction phases for the Proposed Project:

- Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.
- Grading involves the cut-and-fill of land to ensure the proper base and slope for the construction foundation.
- Building Construction involves the construction of structures and buildings.
- Paving involves the laying of concrete or asphalt such as in parking lots or roads.
- Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, and the painting of parking lot striping, associated signage and curbs.

Note, two scenarios are considered for the construction of the Proposed Project that have different material movement amounts in the grading phase. Scenario 1 assumes that the excavated material from portions of the Project site will be used as fill during grading. Scenario 2 conservatively assumes that all the excavated material will be exported offsite and soil will be imported for fill during grading.

The analysis also includes an estimation of the CAP emissions associated with the following construction phases for the site access and roadway improvements:

- <u>Linear, Grubbing & Land Clearing</u> involves removing vegetation, trees, stumps (grubbing), and clearing stones or other debris from roads, in preparation for grading and excavation.
- <u>Linear, Grading & Excavation</u> involves demolition of existing surfaces and cut-and-fill activities to ensure the proper base and slope for road construction.
- <u>Linear, Drainage, Utilities, & Sub-Grade</u> involves the road construction activities including installation of drainage systems, utility lines, and preparing and compacting the sub-grade to support the road pavement.
- <u>Linear, Paving</u> involves the laying of concrete or asphalt for road surfaces.

The proposed schedule for constructing the Project and the site access and roadway improvements are shown in **Table 4-1** and **Table 4-2** respectively. CalEEMod was used to estimate the annual GHG emissions associated with construction sources including off-road construction equipment and on-road construction vehicle trips.

The off-road construction equipment list and specifications are based on the Project-specific information and supplemented with CalEEMod model defaults, as shown in **Table 4-3** and **Table 4-4**. The Project-specific worker, vendor, and hauling trips, supplemented with CalEEMod defaults are displayed in **Table 4-5**, **Table 4-6**, and **Table 4-7**. **Table 4-8**, **Table 4-9**, and **Table 4-10**, present material volumes which are anticipated to be imported and exported for Project construction Scenario 1, Project construction Scenario 2, and site access and roadway improvements, respectively. Additionally, **Table 4-11** presents an estimate of the demolition debris that would be generated and shipped offsite during the Linear, Grubbing & Land Clearing construction phase for the site access and roadway improvements.

4.2.1 Emissions from Construction Equipment

The emissions associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length, and on-road vehicle trips and phase length.

Since the majority of the off-road construction equipment used for construction projects are diesel-fueled, CalEEMod methodology assumes all of the equipment operates on diesel fuel. These calculations include the running exhaust emissions from off-road equipment. Since the equipment is assumed to be diesel, there are no starting emissions associated with the equipment, as these are *de minimis* for diesel-fueled equipment. CalEEMod calculates the exhaust emissions based on default values for horsepower and load factor from CARB's OFFROAD2017 methodology using the equation presented below.[40]

$$Emissions_{Diesel} = \sum_i (EF_i \times Pop_i \times AvgHP_i \times Load_i \times Activity_i)$$

Where:

EF	=	Emission factor in grams per horsepower-hour (g/bhp-hr) as processed from OFFROAD2017
Pop	=	Population, or the number of pieces of equipment
AvgHp	=	Maximum rated average horsepower
Load	=	Load factor
Activity	=	Hours of operation
i	=	equipment type

The construction-related equipment assumptions based on the Project-specific information and supplemented with CalEEMod model defaults are shown in **Table 4-3** and **Table 4-4**. The combustion emissions from the equipment were calculated using CalEEMod, as shown in **Appendix A**.

[40] CAPCOA. 2022. California Emissions Estimator Model User's Guide, Appendix C. Available at: https://caleemod.com/documents/user-guide/04_Appendix%20C.pdf. Accessed: October 2025.

4.2.2 Emissions from On-Road Construction Trips

Construction generates on-road vehicle GHG emissions from worker and vendor commuting, concrete trucks, and trucks used for construction debris and soil/material hauling.

These emissions are calculated in CalEEMod based on the number of trips and vehicle miles traveled (VMT) (**Table 4-5**, **Table 4-6**, and **Table 4-7**) along with emission factors from EMFAC2021. The numbers of worker and vendor trips represent defaults from CalEEMod based on the construction equipment to be used. The number of haul trips was estimated by CalEEMod based on the volume of soil to be imported/exported (**Table 4-8**, **Table 4-9**, and **Table 4-10**) and the amount of demolition debris generated (**Table 4-11**). The number of concrete truck trips were based on Project-specific information.

Additionally, the emissions associated with on-site idling of concrete trucks during the building construction phase were estimated using concrete truck trip rates, idling duration per trip, and emission factors from EMFAC2021. Refer to **Table A-1** and **Table A-2** in **Appendix A** for further details.

4.2.3 Total Construction Emissions

Total GHG emissions for each year of Proposed Project and the site access and roadway improvements construction (2026 and 2027) are summarized in **Table 4-12** and **Table 4-13**, for Project construction Scenario 1 and Scenario 2, respectively. As noted previously under **Section 4.2**, Project construction Scenario 1 assumes that the excavated material from portions of the Project site will be used as fill during grading, while Project construction Scenario 2 conservatively assumes that all the excavated material will be exported offsite, and soil will be imported for fill during grading. Additionally, while the Project has committed to a construction mitigation measure to mitigate the significant impact of the maximum estimated cancer risk,[41] this mitigation measure does not impact the greenhouse gas emissions of the construction equipment. As shown in **Table 4-12** and **Table 4-13**, the annual GHG emissions associated with the construction of the Proposed Project under both scenarios are less than the PCAPCD's GHG significance threshold for construction.[42]

4.3 Operational Emissions

This section describes the estimation of GHG emissions from operational activities at the Project site. The operational emissions were calculated primarily utilizing CalEEMod. Operational GHG emissions are calculated for area sources, mobile sources, water use, energy use, solid waste disposal, refrigerant use, stationary sources, and vegetation sequestration changes. Operational emissions are evaluated for the first year of Proposed Project operation, i.e., calendar year 2027.

4.3.1 Area Sources

Area sources are direct sources of GHG emissions, such as emissions from landscaping activities. The area source GHG emissions included in this analysis are landscaping-related

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[41] Refer to Section 6 of the EDH Costco Project Air Quality Technical Report for further details on Mitigation Measure 3.2-4a: Apply Tier 4 Emission Standards to Diesel-Powered Off-Road Equipment.

[42] PCAPCD CEQA Handbook. 2017. Chapter 2 Thresholds of Significance. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: June 2025.

fuel combustion sources, such as lawn mowers. These emissions are estimated in the CalEEMod output for the Proposed Project in **Appendix B-1**.

4.3.2 Mobile Sources

The GHG emissions associated with on-road mobile sources are generated from customer and employee vehicles, delivery trucks (i.e., fuel delivery trucks and warehouse/tire center delivery trucks), and transport refrigeration units (TRUs) that are mounted on the trailers of some on warehouse delivery trucks traveling to and from the Project site. The GHG emissions associated with on-road mobile sources include running and starting exhaust emissions. Running exhaust emissions are dependent on VMT. Starting emissions are associated with the number of starts or time between vehicle uses and the assumptions used in determining these values are described below. Ramboll calculated mobile source emissions using trip rates based on analyses conducted by Kittelson[43] and Project-specific information for fuel delivery trucks and warehouse/tire center delivery trucks.

The analysis includes the benefit of reductions from adopted regulatory programs that are accounted for within EMFAC2021 including Assembly Bill 1493 ("the Pavley Standard"), the Advanced Clean Cars (ACC) program, the USEPA/National Highway Traffic Safety Administration Advanced Fuel Economy, and the Heavy-Duty Omnibus regulation.

Public Law 119-17, enacted on June 12, 2025, is a House joint resolution that disapproves the Clean Air Act (CAA) waiver granted by USEPA for the Heavy-Duty Omnibus regulation under the Congressional Review Act.[44] As noted above, this analysis uses EMFAC2021 which incorporates the CAP benefits of Heavy-Duty Omnibus regulation. However, this regulation does not impact the GHG emissions from heavy-duty trucks; therefore this analysis remains unaffected by Public Law 119-17.

Public Law 119-15, enacted on June 12, 2025, is a House joint resolution that disapproves the CAA waiver granted by USEPA for the Advanced Clean Trucks (ACT) Regulation, which is a zero-emission vehicle (ZEV) sales mandate for truck manufacturers.[45] While EMFAC2021 incorporates reductions associated with the ACT regulation, this analysis assumes that all Project-related delivery trucks are diesel-fueled. Hence, Public Law 119-15's disapproval of California's CAA waiver for ACT regulation does not impact this analysis.

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[43] Kittelson & Associates. 2025. El Dorado Costco CEQA Analysis. July 23.

[44] United States Code. 2025. Public Law 119-17 - Joint resolution providing congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Environmental Protection Agency relating to "California State Motor Vehicle and Engine and Nonroad Engine Pollution Control Standards; The 'Omnibus' Low NO_X Regulation; Waiver of Preemption; Notice of Decision". Available at: https://www.govinfo.gov/app/details/PLAW-119publ17. Accessed: October 2025.

[45] United States Code. 2025. Public Law 119-15 - Joint resolution providing congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Environmental Protection Agency relating to "California State Motor Vehicle and Engine Pollution Control Standards; Heavy-Duty Vehicle and Engine Emission Warranty and Maintenance Provisions; Advanced Clean Trucks; Zero Emission Airport Shuttle; Zero-Emission Power Train Certification; Waiver of Preemption; Notice of Decision". Available at: https://www.govinfo.gov/app/details/PLAW-119publ15. Accessed: October 2025.

Public Law 119-16, enacted on June 12, 2025, is a House joint resolution that disapproves the CAA waiver granted by USEPA for the ACC II regulation, which is a ZEV sales mandate for passenger vehicle manufacturers.[46] Additionally, on January 13, 2025, CARB withdrew its waiver request for the Advanced Clean Fleets (ACF) regulation, which requires fleet owners to reduce emissions by increasing the use of zero emissions trucks in their fleets by replacing existing diesel/gasoline trucks.[47] EMFAC2021 does not incorporate the benefits of the ACC II and ACF regulations; therefore, GHG reductions associated with these regulations are not included in this analysis.

4.3.2.1 Estimating Mobile Source Emissions

Mobile source emissions calculation requires trip rates, trip lengths, and idle time for each on-road vehicle trip type associated with the Proposed Project (e.g., passenger vehicles and delivery trucks). Additionally, the operational time for TRU engines that are mounted on some of the trailers delivered to the warehouse is required to estimate exhaust emissions from TRUs. The following sections describe the methodology to derive the necessary inputs for these calculations.

a) On-Road Vehicle Trip Generation Rates

The total trip generation rates for passenger vehicles (customer and employees) visiting the Proposed Project were provided by Kittelson. The number of TRU equipped trailers that are brought onsite by warehouse delivery trucks and the trip generation rates for fuel and warehouse/tire center delivery trucks are based on Project-specific estimates. The annual average trips were estimated using the daily weekday and weekend trip rates. These are summarized in **Table B-1** in **Appendix B**.

b) Vehicle Miles Traveled

The VMT of passenger vehicles (customer and employees) was provided by Kittelson. The VMT of delivery trucks was calculated as the product of trip rates and trip lengths as shown in **Table B-1** in **Appendix B**. The trip length for delivery trucks is based on Project-specific estimates.

c) On-road Vehicle Idle Duration

The passenger vehicle (customer and employees) idling durations for vehicles queuing at the gasoline dispensing facility (GDF) were provided by Kittelson (**Table B-1** in **Appendix B**). The idle duration for delivery trucks is assumed to be 15 minutes for each round trip (maximum of 5 minutes at Project site entry, 5 minutes at the loading area, and 5 minutes

[46] United States Code. 2025. Public Law 119-16 - Joint resolution providing congressional disapproval under chapter 8 of title 5, United States Code, of the rule submitted by the Environmental Protection Agency relating to "California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption; Notice of Decision". Available at: https://www.govinfo.gov/app/details/PLAW-119publ16. Accessed: October 2025.

[47] California Air Resources Board. 2025. Withdrawal of California's Request for a Waiver, Pursuant to Clean Air Act Section 209(b), and Request for Authorization, Pursuant to Clean Air Act Section 209(e)(2), for the Advanced Clean Fleets (ACF) Regulation, Docket ID EPA-HQ-OAR-2023-0589. January 13. Available at: https://www.epa.gov/system/files/documents/2025-01/ca-acf-carb-withdrawal-ltr-2025-1-13.pdf. Accessed: October 2025.

at Project site exit), consistent with CARB's Air Toxic Control to Limit Diesel-Fueled Commercial Motor Vehicle Idling.[48]

d) TRU Operational Time

The total operational time for each TRU equipped trailer that is brought onsite by a warehouse delivery truck is estimated as the sum of the on-site truck idling time and the travel time for the truck round trip (**Table B-1** in **Appendix B**). As noted above, the on-site truck idling time is assumed to be 15 minutes. The truck travel time for each warehouse delivery truck round trip is estimated as the ratio of the round trip length to the average vehicle speed. For purposes of this analysis, the average vehicle speed was assumed to be 30 miles per hour for off-site travel and 5 miles per hour for on-site travel consistent with CARB's assumptions in Appendix I of the Proposed Amendments to the Airborne Toxic Control Measure for In-Use Diesel-Fueled TRU and TRU Generator Sets, and Facilities Where TRUs Operate.[49] Annual operational duration of TRUs was estimated based on total operational time per transport refrigeration unit and the total number of TRUs visiting the Project site on an annual basis. Refer to **Table B-1** in **Appendix B** for further details.

e) Fleet Mix

The CalEEMod default fleet mix for passenger vehicles in El Dorado-Mountain County (**Table B-2** in **Appendix B**) was adjusted using the default VMT distribution for passenger vehicle technology/fuel categories in EMFAC2021 to determine the Project-specific fleet mix of the passenger vehicles visiting the Project (**Table B-3** in **Appendix B**). Passenger vehicles visiting the GDF represent vehicles used by patrons of the fuel facility and are conservatively assumed to only include plug-in hybrids and gasoline-fueled vehicles. Warehouse and employee passenger vehicles represent the vehicles used by patrons and employees of the warehouse and include gasoline, plug-in hybrid, electricity, and diesel-fueled vehicles. All delivery trucks were assumed to be heavy heavy-duty diesel trucks.

f) Mobile Source Emission Factors

Running, starting, and idling exhaust emission factors for passenger vehicles and delivery trucks visiting the Proposed Project were estimated using the Project-specific fleet mix and EMFAC2021 mobile source emission factor data for El Dorado County. These calculations are presented in **Tables B-4 through Table B-10** in **Appendix B**.

Exhaust emission factors for TRUs were calculated using OFFROAD2021 outputs for in-State and out-of-State trailer TRUs operating in El Dorado-Mountain County as shown in **Table B-11** in **Appendix B**.

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[48] CARB Air Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about. Accessed: June 2025.

[49] CARB. 2021. Appendix I of the Proposed Amendments to the Airborne Toxic Control Measure for In-Sue Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities where TRUs operate. July 17. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/appi.pdf. Accessed: June 2025.

4.3.2.2 Mobile Source Emissions

The annual GHG emissions from mobile sources associated with the Proposed Project operation are presented in **Table B-12** in **Appendix B**. This includes emissions from passenger vehicles, delivery trucks, and TRUs.

As shown in **Table B-12** in **Appendix B**, the GHG emissions from passenger vehicles and delivery trucks for the Proposed Project are estimated using Project-specific trip rates, VMT, idle time (**Table B-1** in **Appendix B**) and running exhaust, starting exhaust, and idling emission factors for these vehicle types that were calculated using EMFAC2021 data (**Table B-4 through Table B-10** in **Appendix B**).

GHG emissions from TRUs are also estimated in **Table B-12** in **Appendix B** using the Project-specific TRU operational time (**Table B-1** in **Appendix B**) and TRU exhaust emission factors from OFFROAD2021 (**Table B-11** in **Appendix B**).

4.3.3 Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute the Proposed Project's water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Additionally, direct CH_4 and N_2O emissions result from the treatment of wastewater.

Water usage associated with the Proposed Project is based on default values in CalEEMod, adjusted to reflect Project-specific features, including:

- Low-Flow Water Fixtures: High-efficiency restroom fixtures designed to reduce water consumption by approximately 40% compared to U.S. baseline standards.
- Water-Efficient Landscaping: The irrigation system incorporates drip rings for parking lot trees to efficiently water the root ball, minimizing water use and ensuring delivery directly to the intended planting areas.

The water usage and associated GHG emissions for the Proposed Project are provided in the CalEEMod output files in **Appendix B-1.**

4.3.4 Energy Use

Energy usage within buildings (e.g., electricity and natural gas) contribute to the Proposed Project's GHG inventory. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered as indirect emissions.

To estimate GHG emissions from the natural gas and electricity usage for the Proposed Project, Ramboll utilized CalEEMod default assumptions, which incorporate 2019 Title 24 Standards.

The proposed GDF does not have natural gas usage associated with its daily operation. To account for the GDF's energy use, CalEEMod default natural gas usages were converted into equivalent electricity usages by applying the ratio of efficiencies between natural gas and equivalent electric appliances. **Table 4-14** summarizes the operational energy assumptions of the Proposed Project by land use type.

The annual natural gas and electricity use and corresponding GHG emissions for the Proposed Project are shown in the CalEEMod output files in **Appendix B-1**. As noted in **Section 4.1.3**, the Proposed Project will be powered by 100% renewable electricity, as Costco has a Clean Energy Contract with PG&E; hence GHG emissions associated with electricity use are zero.

4.3.5 Solid Waste

Municipal solid waste (MSW) is the amount of material that is disposed of by landfilling, recycling, or composting. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the CalRecycle data for individual land uses. CalEEMod uses the overall California Waste Stream composition to generate the necessary types of different waste disposed into landfills. The program quantifies the GHG emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon. The program quantifies the CO_2 emissions associated with the combustion of methane, if applicable. Default landfill gas concentrations were used as reported in Section 2.4 of AP-42. The IPCC has a similar method to calculate GHG emissions from MSW in its 2006 Guidelines for National Greenhouse Gas Inventories.

Solid waste generation associated with the Proposed Project is based on default values for waste generation in CalEEMod. The waste generation and associated GHG emissions can be found in the CalEEMod output files in **Appendix B-1**.

4.3.6 Refrigerant Use

The Proposed Project includes refrigerant use for warehouse operations, based on default values in CalEEMod. The resulting GHG emissions are provided in the CalEEMod output file in **Appendix B-1**.

4.3.7 Stationary Sources

The Proposed Project includes two diesel-powered emergency generators, each rated at 250 horsepower, to support warehouse operations. Testing and maintenance of each generator is not expected to exceed 50 hours per year or 1 hour on any given day. Emissions from emergency generator operation were estimated using default assumptions in CalEEMod. The resulting GHG emissions estimates are provided in the CalEEMod output file in **Appendix B-1**.

4.3.8 Vegetation Changes

Vegetation changes that occur as a result of land use development constitute a change in the carbon sequestration capacity of a project site. The site is expected to initially have 14.97 acres that is pervious, and 0 acres of impervious land. Once the Proposed Project is built, it is expected that 7.31 acres would be pervious (landscaped area) and 7.66 acres would be impervious. The changes in vegetation are presented in **Table 4-15**. GHG emissions associated with vegetation changes are estimated in the CalEEMod output for the Proposed Project operation in **Appendix B-1**.

4.3.9 On-Site Electric Vehicle Chargers

As noted in **Section 1.2.2**, the Proposed Project includes the installation of 10 DC fast chargers with a combined power output of 1,800 kilowatts (kW). **Table 4-16** provides an estimate of the GHG emissions reductions attributed to the use of these EV chargers. As shown in this table, it is anticipated that the chargers will be used for approximately 5.6 hours per day, based on recent usage data for public DC fast chargers in California.[50] Given this usage assumption, Ramboll calculated the reduction in gasoline VMT and the associated decrease in GHG emissions, resulting from the substitution of gasoline VMT with electric VMT.

4.4 Total Annual Operational Emissions

Table 4-17 summarizes the annual operational GHG emissions for the Proposed Project (2,167 MT CO_2e per year).

PCAPCD CEQA Guidelines[51] have a three-tiered approach for assessing GHG emissions from land use projects. For projects with annual operational GHG emissions between 1,100 and 10,000 MT CO_2e per year, PCAPCD recommends applying its GHG Efficiency Matrix to determine significance.

As shown in **Table 4-17**, the Project's estimated annual operational emissions fall within this range. Based on a total building square footage of 165,200 square feet (165,000 square foot warehouse and 200 square foot controller enclosure for the GDF), the calculated GHG efficiency for the Proposed Project is 13.1 MT CO_2e per 1,000 square feet.[52] This is below the applicable threshold of 26.5 MT CO_2e per 1,000 square feet for non-residential projects located in urban areas, as defined by PCAPCD. Therefore, the Project's operational GHG emissions are considered to be less than significant.

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[50] Based on the Q1 2025 and Q2 2025 Paren Reports titled "State of the Industry Report: US EV Fast Charging". Available at: https://www.paren.app/. Accessed: October 2025.

[51] PCAPCD CEQA Handbook. 2017. Chapter 2 Thresholds of Significance. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

[52] Note, the Proposed Project GHG efficiency would be 20.3 MT CO_2e per 1,000 square feet if the analysis accounted for the greenhouse gas emission benefits associated with only the mandatory electric vehicle charging requirements (1,097 kW total power) in the 2025 California Green Building Standards Code. This value is also below the applicable threshold of 26.5 MT CO_2e per 1,000 square feet for non-residential projects located in urban areas, as defined by PCAPCD.

5. PROJECT IMPACTS IN CONTEXT

This section assesses the significance of the Proposed Project's emissions for purposes of CEQA.

5.1 Threshold 1: Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

As noted in **Section 3.2**, in the absence of a quantitative GHG threshold from El Dorado County and EDCAQMD, this Technical Report assesses significance of the Proposed Project's GHG impacts for Threshold 1 against the PCAPCD's GHG significance thresholds (**Table 3-1**).

Total GHG emissions for each year of Proposed Project construction (2026 and 2027) are summarized in **Table 4-12** and **Table 4-13**, for Project construction Scenario 1 and Scenario 2, respectively. The annual GHG emissions associated with the construction of the Proposed Project under both scenarios are less than the PCAPCD's bright-line GHG significance threshold of 10,000 MT CO_2e/year (yr) for construction.

The Proposed Project's annual operational GHG emissions were estimated to be 2,167 MT CO_2e per year (**Table 4-17**). These emissions are between PCAPCD's de minimis GHG emissions level (1,100 MT CO_2e/yr) and bright-line GHG significance threshold (10,000 MT CO_2e/yr) for project operation. Therefore, to evaluate the GHG impacts we estimated the Proposed Project's efficiency metric in accordance with the PCAPCD's Air Quality Handbook.[53] This calculated efficiency metric (13.1 MT CO_2e per 1,000 square feet) shown in **Table 4-17**, is less than PCAPCD's threshold (26.5 MT CO_2e/1,000 square feet) for the operational phase of land use projects in urban settings.

Therefore, the GHG emissions associated with the construction and operation of the Proposed Project would not have a significant impact on the environment.

5.2 Threshold 2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

As noted in **Section 3.2**, this Technical Report assesses the significance of the Proposed Project's GHG impacts for Threshold 2 based on whether it would conflict with the 2022 Scoping Plan Update,[54] SACOG's 2020 MTP/SCS,[55] and El Dorado County RTP 2020-2040.[56,57]

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[53] PCAPCD. 2017. 2017 CEQA Handbook Chapters. Available at: https://www.placerair.org/1801/CEQA-Handbook. Accessed: October 2025.

[54] CARB. 2022. 2022 CARB Scoping Plan Update - Appendix D, Local Actions. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: October 2025.

[55] SACOG. 2020. 2020 SACOG MTP/SCS. Available at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: October 2025.

[56] El Dorado County Transportation Commission. 2020. El Dorado County Regional Transportation Plan 2020-2040. November 5. Available at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: October 2025.

[57] El Dorado County. 2024. County of El Dorado General Plan. May 21. Available at: https://www.eldoradocounty.ca.gov/Land-Use/Planning-and-Building/Planning-Division/Adopted-General-Plan. Accessed: October 2025.

5.2.1 2022 Scoping Plan Update

The 2022 Scoping Plan Update has a table of priority GHG reduction strategies that can be utilized by local governments. The three main priority areas addressed in this table are "Transportation Electrification", "VMT Reduction", and "Building Decarbonization".[58] These measures represent the core strategies that local jurisdictions in California can implement to reduce GHGs in alignment with State goals.

The Proposed Project would not conflict with the implementation of the 2022 Scooping Plan Update and Statewide Emission Reduction Targets and includes the following features and mitigation measures that support the three main priority areas for GHG reduction:

- The Proposed Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[59] by installing ten DC fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by PG&E, as Costco has a Clean Energy Contract with PG&E. These chargers
- The Proposed Project will implement **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** to reduce vehicle miles traveled by employees. This would include implementation of the following measures:
  - **Commute Trip Reduction Marketing**: Costco shall develop and implement a marketing strategy to promote a commute reduction program. The following features (or similar alternatives) shall be provided:
    - On-site or online commuter information services;
    - Employee transportation coordinators; and
    - Guaranteed ride home service.
  - **Provide Ridesharing Program**: Costco shall develop and implement a ridesharing program. The following strategies provide examples of a multifaceted approach for promoting a rideshare program:
    - Designating a certain percentage of desirable parking spaces for ridesharing vehicles;
    - Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles; and
    - Providing an app or website for coordinating rides.
  - **Provide End-of-Trip Bicycle Facilities**: Costco shall install and maintain end-of-trip bicycle facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers.

[58] CARB. 2022. Final 2022 Scoping Plan Update and Appendices. December. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed: October 2025.

[59] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: October 2025.

- The Proposed Project will include **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements** as well, which is described below:
  - Costco shall provide pedestrian network improvements near the site, constructing sidewalks along the Project frontage on Clarksville Crossing and Silva Valley Parkway. In addition, Costco shall construct sidewalks north of the Project frontage on the east side of Silva Valley Parkway to connect to existing sidewalk near Oak Meadow Elementary School, thereby providing connectivity with the surrounding neighborhood.
- The Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. Additionally the Project is located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit.
- While the Project does generate an increase in VMT,[60] the VMT analysis does not take into account the Costco trips "replacing" existing trips currently going to other retailers. Furthermore, the Project is expected to serve the existing population of the area by providing more convenient access to Costco services. The Project will allow customers to have multiple needs served in one trip, including but not limited to: eye exams, purchase of household goods and groceries, furniture store, appliance store, liquor store, and refueling at a GDF. The VMT modeling does not measure the benefit of one Costco trip replacing multiple trips, and given these factors, it is likely that Costco members make fewer total retail shopping trips in a month or a year when they have the option of shopping at Costco than they would make if they did not have a Costco nearby.
- The Proposed Project will incorporate several sustainability and energy efficiency measures including green building practices as required by the 2025 California Green Building Standards Code.[61] Refer to **Section 1.2** of this report for a detailed listing of these measures. Notably, the Proposed Project operations will be powered 100% renewable electrical power supplied by PG&E, as Costco has a Clean Energy Contract with PG&E.

For further details on the Project evaluation against the 2022 Scoping Plan Update, refer to **Table C-1** in **Appendix C**.

5.2.2 SACOG 2020 MTP/SCS

The Proposed Project would not conflict with the State's GHG reduction goals and strategies as discussed in the SACOG's 2020 MTP/SCS,[62] which fall into four priority policy areas:

1. Build vibrant places for today's and tomorrow's residents;
2. Foster the next generation of mobility solutions;
3. Modernize the way we pay for transportation infrastructure; and
4. Build and maintain a safe, reliable, and multimodal transportation system.

[60] Kittelson & Associates. 2025. El Dorado Costco CEQA Analysis. July 23.

[61] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: October 2025.

[62] SACOG. 2020. Metropolitan Transportation Plan/Sustainable Communities Strategy. Available at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: October 2025.

The Proposed Project would not conflict with the implementation of the SACOG's 2020 MTP/SCS and has several elements that are expected to support the priority policy areas in SACOG's 2020 MTP/SCS. As noted in **Section 5.2.1**, the Project is an infill development that would create new employment opportunities, and is located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the Project. Additionally, the Project is located adjacent to homes, therefore the Project would provide retail and jobs near a housing-rich area served by El Dorado Transit.

The Proposed Project will also meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code by installing ten DC fast chargers that provide a total power of 1,800 kW, as noted in **Section 5.2.1**. These chargers will be powered by 100% renewable electrical power supplied by PG&E, as Costco has a Clean Energy Contract with PG&E. This will reduce the greenhouse gas emissions from on-road vehicles traveling in the County.

Additionally, the Proposed Project will implement **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** which would reduce vehicle miles traveled by employees by developing and implementing the following measures:

- Commute trip reduction marketing;
- A ridesharing program for employees; and
- On-site end-of-trip bicycle facilities.

The Project will also include **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**. These are further described in **Section 5.2.1**. Note, the pedestrian network improvements include

- Constructing sidewalks along the Project frontage on Clarksville Crossing and Silva Valley Parkway and
- Constructing sidewalks north of the Project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood.

Finally, the Proposed Project will implement off-site transportation improvements in coordination with the County to address compliance with the El Dorado County Transportation and Circulation Element policies. This would include

- The addition of a new signalized intersection on Silva Valley Parkway, shared with the South Site's main driveway;
- The addition of a new signalized intersection with Silva Valley Parkway shared with the North Site;
- Installation of a partial traffic signal at the intersection of Silva Valley Parkway and Clarksville Crossing;

- Installation of 150-foot dual northbound left turn lanes at the proposed signalized intersection of Silva Valley Parkway and the Project driveway; and
- The addition of a northbound right turn lane, change in the right turn phase to be permissive and overlap, and increase of the westbound left turn storage length at the intersection of White Rock Road and Valley View Parkway-Vine Street.

These improvements to the transportation infrastructure would help meet the existing and future transportation needs of the area in the vicinity of Project site.

Based on the Project elements described above, the Project would not interfere with the implementation of the SACOG's 2020 MTP/SCS and would include elements that support the goals of the plan. Refer to **Table C-2** in **Appendix C** for further details on the Project evaluation against SACOG's 2020 MTP/SCS.

5.2.3 El Dorado County RTP 2020-2040

The Proposed Project would not conflict with the El Dorado County 2020-2040 RTP,[63] which includes the following main goals: to improve highways, streets, and regional/inter-regional roadways, public transit, aviation, freight movement, non-motorized transportation, transportation systems management, integrated land use, air quality, and transportation planning, and funding.

The Project supports the objectives of the El Dorado County Regional Transportation Plan by providing sidewalks, bike lanes, and pedestrian connections. As noted in **Section 5.2.1**, the Project is an infill development that would create new employment opportunities and is located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), thereby creating jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the Project. Additionally, the Project is located adjacent to homes, therefore the Project would provide retail and jobs near a housing-rich area served by El Dorado Transit.

Further, as described in **Section 5.2.1** and **Section 5.2.2**, the Project would include pedestrian network improvements as part of **Mitigation Measure 3.14-2b**, and would implement several off-site transportation improvements in coordination with the County to address the existing and future needs of the region in the immediate vicinity of the Project site.

Based on the Project elements described above, the Project would not interfere with the implementation of the El Dorado County 2020-2040 RTP and would include elements that support the goals of the plan. Refer to **Table C-3** in **Appendix C** for further details on Project evaluation against the County's RTP.

[63] El Dorado County Transportation Commission. 2020. El Dorado County Regional Transportation Plan 2020-2040. November 5. Available at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: October 2025.

5.3 Summary

As discussed in **Section 5.1**, the Proposed Project is expected to result in emissions that are below PCAPCD GHG thresholds for operation and construction. Additionally, as described in **Section 5.2**, the Proposed Project would not conflict with the 2022 Scoping Plan Update, SACOG's 2020 MTP/SCS, or the El Dorado County RTP 2020-2040. Therefore, the Proposed Project's GHG emissions will be less than significant in the context of Threshold 1 and Threshold 2. Based on the analysis above, the Proposed Project's GHG emissions are not cumulatively considerable, and the Proposed Project is less than significant for cumulative GHG impacts.

TABLES

Table 3-1. Placer County Air Pollution Control District's Greenhouse Gas Significance Thresholds
El Dorado Hills Costco Project
El Dorado Hills, California

Category	Greenhouse Gas Significance Thresholds [1]
Bright-Line Threshold for Project Construction	10,000 MT CO_2e/year
De Minimis Level for Project Operations	1,100 MT CO_2e/year
Bright-Line Threshold for Project Operations	10,000 MT CO_2e/year
Efficiency Matrix Threshold for Non-Residential Urban Projects	26.5 MT CO2e/1,000 sf
Efficiency Matrix Threshold for Non-Residential Rural Projects	27.3 MT CO_2e/1,000 sf

Notes:

[1] Placer County APCD. 2016. California Environmental Quality Act Thresholds of Significance. October. Available at: https://www.placerair.org/DocumentCenter/View/2061/Threshold-Justification-Report-PDF?bidId=. Accessed: October 2025.

Abbreviations:

APCD - Air Pollution Control District

CO_2e - carbon dioxide equivalent

MT - metric ton

sf - square feet

Table 4-1. Construction Schedule - Proposed Project
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name [1]	CalEEMod Phase Type [1]	Start Date [1]	End Date [1]	Phase Duration [2] (days)
Site Preparation	Site Preparation	7/1/2026	8/6/2026	37
Grading	Grading	8/7/2026	1/27/2027	174
Building Construction	Building Construction	8/7/2026	5/17/2027	284
Paving	Paving	1/28/2027	4/16/2027	79
Architectural Coating	Architectural Coating	3/17/2027	5/17/2027	62

Notes:

[1] Construction phases and duration are based on Project-specific information. Note, there are two scenarios for project construction which differ in the material movement amounts in the grading phase. However, the construction schedule for both scenarios is expected to be the same.

[2] The construction work week was assumed to be 7 days per week.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table 4-2. Construction Schedule - Site Access and Roadway Improvements
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name [1]	CalEEMod Phase Type [1]	Start Date [1]	End Date [1]	Phase Duration [2] (days)
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	7/1/2026	7/26/2026	26
Linear, Grading & Excavation	Linear, Grading & Excavation	7/27/2026	11/8/2026	105
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	11/9/2026	2/8/2027	92
Linear, Paving	Linear, Paving	2/9/2027	3/19/2027	39

Notes:

[1] Construction phases and duration are based on Project-specific information.

[2] The construction work week was assumed to be 7 days per week.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table 4-3. Construction Equipment Assumptions - Project
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Offroad Equipment Type [1]	Number of Equipment [1]	Usage Hours [1] (hours/day)	Equipment Horsepower [1] (hp)	Equipment Load Factor [1]	Fuel Type [1]	Engine Tier for Unmitigated Project [1]	DPF Level for Unmitigated Project [1]	Engine Tier for Mitigated Project [2]	DPF Level for Mitigated Project [2]
Site Preparation	Rubber Tired Dozers	3	8	367	0.40	Diesel	Average	N/A	Tier 3	Level 3
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Grading	Excavators	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Grading	Graders	1	8	148	0.41	Diesel	Average	N/A	Tier 3	Level 3
Grading	Rubber Tired Dozers	1	8	367	0.40	Diesel	Average	N/A	Tier 3	Level 3
Grading	Scrapers	2	8	423	0.48	Diesel	Average	N/A	Tier 3	Level 3
Grading	Tractors/Loaders/Backhoes	2	8	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Cranes	1	7	367	0.29	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Forklifts	3	8	82	0.20	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Generator Sets	1	8	14	0.74	Diesel	Average	N/A	Average	N/A
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Welders	1	8	46	0.45	Diesel	Average	N/A	Average	N/A
Paving	Pavers	2	8	81	0.42	Diesel	Average	N/A	Tier 3	Level 3
Paving	Paving Equipment	2	8	89	0.36	Diesel	Average	N/A	Tier 3	Level 3
Paving	Rollers	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Architectural Coating	Air Compressors	1	6	37	0.48	Diesel	Average	N/A	Average	N/A

Notes:

[1] Based on CalEEMod default values. Note, there are two scenarios for project construction which differ in the material movement amounts in the grading phase. However, the construction equipment activity for both scenarios is expected to be the same.

[2] Construction equipment greater than 50 hp used at the site shall be mitigated to meet USEPA Tier 4 Final emission standards for PM10 and PM2.5. If Tier 4 Final equipment is viable but not available, all construction equipment larger than 50 horsepower used at the site shall meet USEPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices. To be conservative, this analysis assumed that Tier 3 engines with particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices would be used on-site to model the potential mitigated construction emissions if Tier 4 final equipment is not available.

Abbreviations:

CalEEMod - California Emissions Estimator Model
CARB - California Air Resources Board
DPF - Diesel Particulate Filter
hp - horsepower
N/A - not applicable
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
USEPA - United States Environmental Protection Agency

Table 4-4. Construction Equipment Assumptions - Site Access and Roadway Improvements
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Offroad Equipment Type [1]	Number of Equipment [1]	Usage Hours [2] (hours/day)	Equipment Horsepower [2] (hp)	Equipment Load Factor [2]	Fuel Type [2]	Engine Tier for Unmitigated Project [2]	DPF Level for Unmitigated Project [2]	Engine Tier for Mitigated Project [3]	DPF Level for Mitigated Project [3]
Linear, Grubbing & Land Clearing	Crawler Tractors	1	8	87	0.43	Diesel	Average	N/A	Tier 3	Level 3
Linear, Grubbing & Land Clearing	Excavators	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Linear, Grubbing & Land Clearing	Signal Boards	1	8	6	0.82	Electric	Average	N/A	Average	N/A
Linear, Grading & Excavation	Crawler Tractors	1	8	87	0.43	Diesel	Average	N/A	Tier 3	Level 3
Linear, Grading & Excavation	Rollers	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Linear, Grading & Excavation	Signal Boards	1	8	6	0.82	Electric	Average	N/A	Average	N/A
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	1	8	37	0.48	Diesel	Average	N/A	Average	N/A
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	1	8	8	0.43	Diesel	Average	N/A	Average	N/A
Linear, Drainage, Utilities, & Sub-Grade	Pumps	1	8	11	0.74	Diesel	Average	N/A	Average	N/A
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	1	8	96	0.40	Diesel	Average	N/A	Tier 3	Level 3
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	1	8	423	0.48	Diesel	Average	N/A	Tier 3	Level 3
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	1	8	6	0.82	Electric	Average	N/A	Average	N/A
Linear, Paving	Pavers	1	8	81	0.42	Diesel	Average	N/A	Tier 3	Level 3
Linear, Paving	Paving Equipment	1	8	89	0.36	Diesel	Average	N/A	Tier 3	Level 3
Linear, Paving	Signal Boards	1	8	6	0.82	Electric	Average	N/A	Average	N/A

Notes:

[1] Construction of Site Access and Roadway Improvements is expected to occur at the same time as the Project construction. Additional equipment needed in each subphase that are not already included in the Project construction are presented in this table.

[2] Based on CalEEMod default values.

[3] Construction equipment greater than 50 hp used at the site shall be mitigated to meet USEPA Tier 4 Final emission standards for PM_{10} and $PM_{2.5}$. If Tier 4 Final equipment is viable but not available, all construction equipment larger than 50 horsepower used at the site shall meet USEPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices. To be conservative, this analysis assumed that Tier 3 engines with particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices would be used on-site to model the potential mitigated construction emissions if Tier 4 final equipment is not available.

Abbreviations:

CalEEMod - California Emissions Estimator Model
CARB - California Air Resources Board
DPF - Diesel Particulate Filter
hp - horsepower
N/A - not applicable
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
USEPA - United States Environmental Protection Agency

Table 4-5. Construction Trip Assumptions - Project Construction Scenario 1
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Worker Trips per Day [1,2]	Vendor Trips per Day [1,2]	Hauling Trips per Day [1,3]	Concrete Truck Trips per Day [1,4]
Site Preparation	18	0	0	0
Grading	20	0	39	0
Building Construction	96	44	0	104
Paving	15	0	0	0
Architectural Coating	19	0	0	0

Notes:

[1] Trips are presented as one-way trips per day.

[2] Worker and vendor trips are based on CalEEMod defaults. The one-way trip lengths for worker and vendor trips is assumed the CalEEMod default values of 14.3 and 8.8 miles, respectively.

[3] Hauling trips reflect CalEEMod defaults based on Project-specific estimates of material movement shown in Table 4-8. The one-way trip length for hauling trips is assumed to be the CalEEMod default value of 20 miles.

[4] Project construction includes nighttime concrete pours on eight days during the building construction phase where 52 concrete trucks would visit the site per day (104 one-way trips per day). This 8 day activity is expected to occur in December 2026. For purposes of this analysis, these concrete trucks are modeled as heavy-heavy duty vendor truck trips in CalEEMod with a CalEEMod default one-way trip length of 8.8 miles.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table 4-6. Construction Trip Assumptions - Project Construction Scenario 2
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Worker Trips per Day [1,2]	Vendor Trips per Day [1,2]	Hauling Trips per Day [1,3]	Concrete Truck Trips per Day [1,4]
Site Preparation	18	0	0	0
Grading	20	0	115	0
Building Construction	96	44	0	104
Paving	15	0	0	0
Architectural Coating	19	0	0	0

Notes:

[1] Trips are presented as one-way trips per day.

[2] Worker and vendor trips are based on CalEEMod defaults. The one-way trip lengths for worker and vendor trips is assumed the CalEEMod default values of 14.3 and 8.8 miles, respectively.

[3] Hauling trips reflect CalEEMod defaults based on Project-specific estimates of material movement shown in Table 4-9. The one-way trip length for hauling trips is assumed to be the CalEEMod default value of 20 miles.

[4] Project construction includes nighttime concrete pours on eight days during the building construction phase where 52 concrete trucks would visit the site per day (104 one-way trips per day). This 8 day activity is expected to occur in December 2026. For purposes of this analysis, these concrete trucks are modeled as heavy-heavy duty vendor truck trips in CalEEMod with a CalEEMod default one-way trip length of 8.8 miles.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table 4-7. Construction Trip Assumptions - Site Access and Roadway Improvements
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Worker Trips per Day [1,2]	Vendor Trips per Day [1,2]	Hauling Trips per Day [1,3]
Linear, Grubbing & Land Clearing	10	0	12
Linear, Grading & Excavation	10	1	0
Linear, Drainage, Utilities, & Sub-Grade	15	0	0
Linear, Paving	8	0	0

Notes:

[1] Trips are presented as one-way trips per day.

[2] Worker and vendor trips are based on CalEEMod defaults. The one-way trip lengths for worker and vendor trips is assumed the CalEEMod default values of 14.3 and 8.8 miles respectively.

[3] Hauling trips reflect CalEEMod defaults based on Project-specific estimates of material and construction debris movement shown in Table 4-10 and 4-11. The one-way trip length for hauling trips is assumed to be the CalEEMod default value of 20 miles.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table 4-8. Construction Material Movement - Project Construction Scenario 1
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Material Imported [1] (yd^3)	Material Exported [1] (yd^3)
Grading	54,000	0

Notes:
[1] Soil import and export quantities based on project-specific data.

Abbreviations:
yd^3 - cubic yard

Table 4-9. Construction Material Movement - Project Construction Scenario 2
El Dorado Hills Costco Project
El Dorado Hills, California

Phase Name	Material Imported [1] (yd^3)	Material Exported [1] (yd^3)
Grading	107,000	53,000

Notes:
[1] Soil import and export quantities based on project-specific data.

Abbreviations:
yd^3 - cubic yard

Table 4-10. Construction Material Movement - Site Access and Roadway Improvements
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Material Imported [1] (yd^3)	Material Exported [1] (yd^3)
Linear, Grading & Excavation	70	0

Notes:
[1] Soil import and export quantities based on project-specific data.

Abbreviations:
yd^3 - cubic yard

Table 4-11. Construction Demolition Assumptions - Site Access and Roadway Improvements
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Size Metric	Unit Amount [1]
Linear, Grubbing & Land Clearing	tons of debris	1,284

Notes:
[1] Demolition debris quantity based on project-specific data.

Table 4-12. Annual Greenhouse Gas Emissions for Project Construction Scenario 1
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Activity Type	GHG Emissions [1] (MT CO_2e/yr)
Proposed Project Construction (2026) [2]	1,122
Proposed Project Construction (2027) [2]	491
Proposed Site Access and Roadway Improvements Construction (2026) [3]	124
Proposed Site Access and Roadway Improvements Construction (2027) [3]	60
Total Construction Emissions (2026)	**1,246**
Total Construction Emissions (2027)	**551**
Construction GHG Threshold [4]	**10,000**
Do Either Year of Construction Exceed the Threshold?	NO

Notes:

[1] GHG emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[2] Obtained from CalEEMod output file for the proposed Project construction in **Appendix A-1** and **Table A-2**.

[3] Obtained from CalEEMod output file for the proposed site access and roadway improvements construction in **Appendix A-4**.

[4] Placer County Thresholds of Significance - Chapter 2. Available here: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric tons
N_2O - nitrous oxide
yr - year

Table 4-13. Annual Greenhouse Gas Emissions for Project Construction Scenario 2
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Activity Type	GHG Emissions [1] (MT CO_2e/yr)
Proposed Project Construction (2026) [2]	1,584
Proposed Project Construction (2027) [2]	574
Proposed Site Access and Roadway Improvements Construction (2026) [3]	124
Proposed Site Access and Roadway Improvements Construction (2027) [3]	60
Total Construction Emissions (2026)	**1,708**
Total Construction Emissions (2027)	**634**
Construction GHG Threshold [4]	**10,000**
Do Either Year of Construction Exceed the Threshold?	NO

Notes:

[1] GHG emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[2] Obtained from CalEEMod output file for the proposed Project construction in **Appendix A-2** and **Table A-2**.

[3] Obtained from CalEEMod output file for the proposed site access and roadway improvements construction in **Appendix A-4**.

[4] Placer County Thresholds of Significance - Chapter 2. Available here: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric tons
N_2O - nitrous oxide
yr - year

Table 4-14. Operational Energy Assumptions
El Dorado Hills Costco Project
El Dorado Hills, California

CalEEMod Land Use Subtype	Total CalEEMod Default Electricity Usage (kWh/yr)	Total CalEEMod Default NG Usage (kBtu/yr)	CalEEMod Default NG Usage for Space Heating [1] (kBtu/yr)	CalEEMod Default NG Usage for Water Heating [1] (kBtu/yr)	CalEEMod Default NG Usage for Cooking [1] (kBtu/yr)	CalEEMod Default NG Usage for Other Equipment [1] (kBtu/yr)	New Electricity Usage from Electrification of NG Space Heating [2] (kWh/yr)	New Electricity Usage from Electrification of NG Water Heating [2] (kWh/yr)	New Electricity Usage from Electrification of NG Cooking [2] (kWh/yr)	New Electricity Usage from Electrification of Other NG Equipment [2] (kWh/yr)	Total New Electricity Usage from Electrification of NG Equipment [2] (kWh/yr)	Electricity Usage for Project Operation [3] (kWh/yr)	Natural Gas Usage for Project Operation [3] (kBtu/yr)
Gasoline/Service Station	23,335	93,655	29,267	8,105	225	56,058	6,948	1,987	33	16,429	25,397	48,732	0
Discount Club	1,437,492	1,423,224	1,099,764	258,768	16,173	48,519	0	0	0	0	0	1,437,492	1,423,224
Enclosed Parking with Elevator	369,143	0	0	0	0	0	0	0	0	0	0	369,143	0
Parking Lot	327,400	0	0	0	0	0	0	0	0	0	0	327,400	0

Notes:

[1] Total CalEEMod default natural gas usages broken down into end use distribution based on Appendix C in the CalEEMod handbook, where the "Other Equipment" category includes space cooling, refrigeration, and miscellaneous uses. Available at: https://www.caleemod.com/documents/handbook/appendices/appendix_c.pdf. Accessed: October 2025.

[2] The proposed Project will not have any natural gas usage at the gasoline dispensing facility. Hence, the CalEEMod default natural gas usage for the gasoline dispensing facility were converted into equivalent electricity usages by multiplying by the ratio of efficiencies between natural gas and equivalent electric appliances for 2022. Typical efficiency values for space heating (100% for electric and 81% for natural gas), water heating (98% for electric and 82% for natural gas), and cooking (71% for electric and 35% for natural gas) are available at: https://www.eia.gov/analysis/studies/buildings/equipcosts/pdf/appendix-a.pdf. Accessed: October 2025. The ratio of natural gas and electric efficiencies for the "Other Equipment" category was conservatively assumed to be 1:1.

[3] The proposed Project operational electricity and natural gas usage is assumed to be equal to CalEEMod defaults for all CalEEMod land use subtypes except the gasoline/service station. For this land use the operational natural gas usage is assumed to be zero based on Project-specific information. The electricity usage is higher than the CalEEMod defaults to account for electrification of CalEEMod default natural gas usage.

Conversion Factors:

3,412.14 Btu/kWh

Abbreviations:

Btu - British thermal units
CalEEMod - California Emissions Estimator Model
kBtu - thousand British thermal units
kWh - kilowatt-hour
NG - natural gas
yr - year

Table 4-15. Vegetation Land Use Change Assumptions
El Dorado Hills Costco Project
El Dorado Hills, California

Emission Source	Vegetation Land Use Type - Vegetation Soil Type [1,2]	CO_2 Accumulation [3] (MT CO_2e/acre/yr)	Acres, Existing Condition [4]	Acres, Proposed Project [4]
Soil Carbon Accumulation	Other - Inceptisols	1.00	14.97	7.31
Soil Carbon Accumulation	Urban - Inceptisols	0.0	0.00	7.66

Emission Source	Cover Type	CO_2 Accumulation [3] (MT CO_2e/acre/yr)	Acres, Existing Condition [4]	Acres, Proposed Project [4]
Above and Belowground Biomass Carbon Accumulation	Grassland	0.43	14.97	7.31
Above and Belowground Biomass Carbon Accumulation	Urban	0	0.00	7.66

Notes:

[1] Vegetation Land Use Type "Other" was chosen as all other CalEEMod Vegetation Land Use Types do not fit the description of the project site.

[2] Vegetation Soil Type at the Project location was determined using UC Davis' SoilWeb online geospatial tool.

[3] CO_2 Accumulation is based on CalEEMod default values. The Vegetation Land Use Type, "Other", does not have a CalEEMod default CO_2 Accumulation value for Inceptisols. Therefore, the CO_2 Accumulation for Inceptisols under the Vegetation Land Use Type, Other, was estimated as the average of CO_2 Accumulation for Inceptisols for all available Land Use Types.

[4] Acreage of vegetation cover is based on project-specific information.

Abbreviations:

CalEEMod - California Emissions Estimator Model
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
MT - metric ton
UC Davis - University of California, Davis
yr - year

Table 4-16. Estimating GHG Emission Benefits of On-Site Electric Vehicle Chargers
El Dorado Hills Costco Project
El Dorado Hills, California

Estimated VMT Reduction from Electric Vehicle Charging Stations		
Total Power Provided by On-Site DC Fast Chargers [1]	1,800	kW
Electricity Emission Factor [2]	0.00	MT CO_2e/MWh
Fuel Economy of Plug-In Hybrid/Electric Vehicle [3]	0.35	kWh/mile
Gasoline CO_2e Emission While Running [4]	320	g/mile
Annual Energy Consumption by EV Chargers [5]	3,705,480	kWh/year
Annual Electric VMT Generated by EV Chargers [6]	9,479,164	miles/year
Annual Electric VMT Generated by Project [7]	378,916	miles/year
Annual Gasoline VMT Reduction [8]	9,100,248	miles/year
Estimated GHG Emission Reductions from Electric Vehicle Charging Stations		
GHG Emissions of Gasoline-Powered Vehicles [9]	2,908	MT CO_2e/year
GHG Emissions of Electric-Powered Vehicles [10]	0	MT CO_2e/year
GHG Emissions Reduction [11]	2,908	MT CO_2e/year

Constants:

Loss for DC Fast Chargers [12]	10%	
Assumed Hours of Usage [13]	5.6	hours/day
Days per year	365	days/year

Notes:

[1] The Project will provide five (5) 360 kW power units, which will feed into ten on-site DC fast chargers.

[2] For the Proposed Project, 100% renewable electrical power will be supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E.

[3] The average fuel efficiencies for electric and plug-in hybrid passenger vehicles that would use the on-site DC fast chargers was obtained from **Table B-13**.

[4] The emission factor for gasoline-powered passenger vehicles was obtained from **Table B-14** and is presented as CO2e, which includes CO2, CH4, and N2O emissions, weighted by their respective 100-year global warming potentials, based upon the IPCC AR4 Assessment.

[5] Annual energy consumed by on-site DC fast chargers is estimated as a product of the total power provided by the chargers and the assumed hours of usage.

[6] The annual electric VMT generated by the EV chargers is estimated using the annual energy supplied to electric and plug-in hybrid electric vehicles using the on-site EV chargers and the fuel economy of these vehicles. The energy supplied by the EV charger is calculated using the annual energy consumed by the chargers and the potential losses associated with DC fast chargers.

[7] The annual electric VMT generated by the Project was obtained from Table 4-9 in the EDH Costco Project Energy Technical Report. This is the electric miles traveled by vehicles visiting the Project that is expected to occur regardless of the EV chargers.

[8] Annual gasoline VMT reduction is estimated as the difference in the annual electric VMT generated by the EV chargers and the annual electric VMT generated by the Proposed Project, which would occur regardless of the EV chargers.

[9] GHG emissions of gasoline-powered vehicles is calculated as a product of the annual gasoline VMT reduction and the GHG emission factor for gasoline-powered passenger vehicles.

[10] GHG emissions of electric-powered vehicles is zero because the tailpipe GHG emissions of these vehicles is zero and the GHG emission factor of the electricity delivered to these vehicles by the on-site EV chargers is also zero, as described in **footnote 2** above.

[11] GHG emissions reductions generated by the on-site EV chargers is calculated as the difference of GHG emissions of gasoline-powered vehicles and electric-powered vehicles.

[12] The losses associated with delivery of electricity from DC fast chargers to electric and plug-in hybrid vehicles is assumed to be 10%. Reference available here: https://insideevs.com/features/711659/ev-charger-efficiency-losses/. Accessed: October 2025.

[13] The assumed hours of usage are based on recently published charger utilization data for publicly available DC fast chargers operating in California. References include the following reports published by Paren: "State of the Industry Report: US EV Fast Charging", for Q1 2025 and Q2 2025. Available at: https://www.paren.app/. Accessed: October 2025.

Abbreviations:

AR4 - Fourth Assessment Report
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
DC - direct current
EDH - El Dorado Hills
EV - electric vehicle
g - gram
GHG - greenhouse gases
IPCC - Intergovernmental Panel on Climate Change
kW - kilowatt
kWh - kilowatt-hour
MT - metric tonnes
MWh - megawatt-hour
N_2O - nitrous oxide
VMT - vehicle miles traveled

Table 4-17. Annual Average Greenhouse Gas Emissions for Project Operation
El Dorado Hills Costco Project
El Dorado Hills, California

Emissions Category	GHG Emissions [1,2]	Unit
Area Sources [3]	3.9	MT CO_2e/yr
Energy Usage [3]	78	MT CO_2e/yr
Mobile [4]	4,731	MT CO_2e/yr
Water [3]	17	MT CO_2e/yr
Waste Disposed [3]	224	MT CO_2e/yr
Refrigerant [3]	0.13	MT CO_2e/yr
Vegetation [3]	11	MT CO_2e/yr
Generators [3]	9.6	MT CO_2e/yr
On-Site Electric Vehicle Chargers [5]	-2,908	MT CO_2e/yr
Operational Emissions	**2,167**	**MT CO_2e/yr**
Calculated Efficiency Metric [6]	**13.1**	**MT CO_2e/1,000 sqft**
Operational GHG Efficiency Metric Threshold [7]	**26.5**	**MT CO_2e/1,000 sqft**
Exceeds Threshold?	NO	**-**

Notes:

[1] Emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[2] Emissions totals may not add up due to rounding.

[3] Obtained from CalEEMod output file for the proposed Project operation in **Appendix B-1**.

[4] Obtained from **Table B-12** in **Appendix B**.

[5] Emission reductions associated with on-site electric vehicle chargers are obtained from **Table 4-16**.

[6] Efficiency metric is calculated as the total operational emissions divided by the building square footage of the Project (165,200 sqft).

[7] Placer County Thresholds of Significance - Chapter 2. Available here: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric tons
N_2O - nitrous oxide
sqft - square feet
yr - year

APPENDIX A
CONSTRUCTION EMISSION CALCULATIONS

Appendix A-1: CalEEMod Model Run for Project Construction Scenario 1 Excluding Concrete Trucks
Appendix A-2: CalEEMod Model Run for Project Construction Scenario 2 Excluding Concrete Trucks
Appendix A-3: CalEEMod Model Run for Concrete Truck Emissions During Project Construction
Appendix A-4: CalEEMod Model Run for Site Access and Roadway Improvements
Appendix A-5: Construction Emission Calculation Tables

APPENDIX A-1
CALEEMOD MODEL RUN FOR PROJECT CONSTRUCTION SCENARIO 1 EXCLUDING CONCRETE TRUCKS

EDH Costco Construction – Scenario 1 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	EDH Costco Construction – Scenario 1
Construction Start Date	7/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Discount Club	165	1000sqft	3.79	165,000	318,349	—	—	—
Gasoline/Service Station	16.0	Pump	0.30	2,259	0.00	—	—	—

Parking Lot	617	Space	8.58	0.00	0.00	—	—	—
Enclosed Parking with Elevator	214	Space	2.30	100,000	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-6	Use Diesel Particulate Filters

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	43.5	43.1	44.6	48.3	0.13	1.54	9.44	11.0	1.42	2.35	3.77	—	14,998	14,998	0.41	0.87	13.0	15,279
Mit.	42.5	42.4	49.5	58.1	0.13	0.38	9.44	9.83	0.35	2.35	2.70	—	14,998	14,998	0.41	0.87	13.0	15,279
% Reduced	2%	2%	-11%	-20%	—	75%	—	11%	75%	—	28%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	43.4	43.0	45.2	46.8	0.13	1.54	9.44	11.0	1.42	2.35	3.77	—	14,870	14,870	0.41	0.87	0.34	15,139
Mit.	42.5	42.3	50.1	56.7	0.13	0.39	9.44	9.83	0.35	2.35	2.70	—	14,870	14,870	0.41	0.87	0.34	15,139
% Reduced	2%	2%	-11%	-21%	—	75%	—	11%	75%	—	28%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	8.05	7.88	21.1	21.9	0.06	0.75	3.81	4.56	0.69	0.95	1.64	—	6,554	6,554	0.19	0.35	2.29	6,667
Mit.	7.59	7.54	22.6	25.8	0.06	0.17	3.81	3.98	0.15	0.95	1.10	—	6,554	6,554	0.19	0.35	2.29	6,667
% Reduced	6%	4%	-7%	-18%	—	77%	—	13%	78%	—	33%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.47	1.44	3.85	3.99	0.01	0.14	0.70	0.83	0.13	0.17	0.30	—	1,085	1,085	0.03	0.06	0.38	1,104
Mit.	1.39	1.38	4.12	4.71	0.01	0.03	0.70	0.73	0.03	0.17	0.20	—	1,085	1,085	0.03	0.06	0.38	1,104
% Reduced	6%	4%	-7%	-18%	—	77%	—	13%	78%	—	33%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.61	4.75	44.6	48.3	0.13	1.54	9.44	11.0	1.42	2.35	3.77	—	14,998	14,998	0.41	0.87	13.0	15,279
2027	43.5	43.1	19.4	31.5	0.05	0.66	4.77	5.43	0.61	0.71	1.32	—	6,778	6,778	0.19	0.28	7.45	6,875
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.56	4.70	45.2	46.8	0.13	1.54	9.44	11.0	1.42	2.35	3.77	—	14,870	14,870	0.41	0.87	0.34	15,139
2027	43.4	43.0	42.6	46.1	0.13	1.42	9.44	10.9	1.31	2.35	3.66	—	14,757	14,757	0.41	0.84	0.31	15,018
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.63	2.22	21.1	21.9	0.06	0.75	3.81	4.56	0.69	0.95	1.64	—	6,554	6,554	0.19	0.35	2.29	6,667
2027	8.05	7.88	8.32	11.3	0.02	0.28	1.98	2.26	0.26	0.37	0.62	—	2,919	2,919	0.08	0.15	1.29	2,965
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.48	0.41	3.85	3.99	0.01	0.14	0.70	0.83	0.13	0.17	0.30	—	1,085	1,085	0.03	0.06	0.38	1,104
2027	1.47	1.44	1.52	2.07	< 0.005	0.05	0.36	0.41	0.05	0.07	0.11	—	483	483	0.01	0.02	0.21	491

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.69	2.52	49.5	58.1	0.13	0.38	9.44	9.83	0.35	2.35	2.70	—	14,998	14,998	0.41	0.87	13.0	15,279
2027	42.5	42.4	23.4	34.2	0.05	0.26	4.77	5.02	0.24	0.71	0.94	—	6,778	6,778	0.19	0.28	7.45	6,875
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.64	2.47	50.1	56.7	0.13	0.39	9.44	9.83	0.35	2.35	2.70	—	14,870	14,870	0.41	0.87	0.34	15,139
2027	42.5	42.3	49.5	56.3	0.13	0.37	9.44	9.82	0.34	2.35	2.69	—	14,757	14,757	0.41	0.84	0.31	15,018
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.16	1.09	22.6	25.8	0.06	0.17	3.81	3.98	0.15	0.95	1.10	—	6,554	6,554	0.19	0.35	2.29	6,667
2027	7.59	7.54	9.92	12.8	0.02	0.09	1.98	2.08	0.09	0.37	0.45	—	2,919	2,919	0.08	0.15	1.29	2,965
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.21	0.20	4.12	4.71	0.01	0.03	0.70	0.73	0.03	0.17	0.20	—	1,085	1,085	0.03	0.06	0.38	1,104
2027	1.39	1.38	1.81	2.34	< 0.005	0.02	0.36	0.38	0.02	0.07	0.08	—	483	483	0.01	0.02	0.21	491

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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

Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	2.96	2.92	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.53	< 0.005	0.02	—	0.02	0.02	—	0.02	—	88.9	88.9	< 0.005	< 0.005	—	89.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.03	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	193	193	< 0.005	0.01	0.70	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.03	18.2

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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	0.90	24.0	28.3	0.05	0.14	—	0.14	0.13	—	0.13	—	5,298	5,298	0.21	0.04	—	5,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	2.44	2.87	< 0.005	0.01	—	0.01	0.01	—	0.01	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.02	0.02	0.44	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	88.9	88.9	< 0.005	< 0.005	—	89.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.03	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	193	193	< 0.005	0.01	0.70	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.03	18.2
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

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

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

Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.46	1.23	11.0	11.1	0.02	0.45	—	0.45	0.42	—	0.42	—	2,658	2,658	0.11	0.02	—	2,667
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.57	0.57	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.22	2.00	2.03	< 0.005	0.08	—	0.08	0.08	—	0.08	—	440	440	0.02	< 0.005	—	441

Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.18	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	220	220	< 0.005	0.01	0.79	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.23	0.57	0.04	0.03	1.52	1.55	0.03	0.28	0.31	—	3,372	3,372	0.02	0.54	5.36	3,538
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.57	0.58	0.04	0.04	1.52	1.55	0.04	0.28	0.31	—	3,371	3,371	0.02	0.54	0.14	3,532
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.25	0.25	0.00	0.04	0.04	—	81.5	81.5	< 0.005	< 0.005	0.14	82.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.03	2.22	0.23	0.01	0.01	0.60	0.62	0.01	0.11	0.12	—	1,358	1,358	0.01	0.22	0.93	1,424
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.41	0.04	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	225	225	< 0.005	0.04	0.15	236

3.4. Grading (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.26	29.8	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.26	29.8	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.51	12.0	14.3	0.02	0.09	—	0.09	0.08	—	0.08	—	2,658	2,658	0.11	0.02	—	2,667
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.57	0.57	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	2.19	2.60	< 0.005	0.02	—	0.02	0.01	—	0.01	—	440	440	0.02	< 0.005	—	441
Dust From Material Movement	—	—	—	—	—	—	0.26	0.26	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.18	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	220	220	< 0.005	0.01	0.79	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.23	0.57	0.04	0.03	1.52	1.55	0.03	0.28	0.31	—	3,372	3,372	0.02	0.54	5.36	3,538
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.57	0.58	0.04	0.04	1.52	1.55	0.04	0.28	0.31	—	3,371	3,371	0.02	0.54	0.14	3,532
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.25	0.25	0.00	0.04	0.04	—	81.5	81.5	< 0.005	< 0.005	0.14	82.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.03	2.22	0.23	0.01	0.01	0.60	0.62	0.01	0.11	0.12	—	1,358	1,358	0.01	0.22	0.93	1,424
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.41	0.04	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	225	225	< 0.005	0.04	0.15	236

3.5. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	1.89	2.02	< 0.005	0.08	—	0.08	0.07	—	0.07	—	488	488	0.02	< 0.005	—	490
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.35	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.8	80.8	< 0.005	< 0.005	—	81.1
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.25	0.57	0.04	0.04	1.52	1.55	0.04	0.28	0.31	—	3,303	3,303	0.02	0.52	0.13	3,459
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	14.7	14.7	< 0.005	< 0.005	0.02	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.38	0.04	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	244	244	< 0.005	0.04	0.16	256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.44	2.44	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	40.5	40.5	< 0.005	0.01	0.03	42.4

3.6. Grading (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.26	29.7	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	2.20	2.62	< 0.005	0.02	—	0.02	0.01	—	0.01	—	488	488	0.02	< 0.005	—	490
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	80.8	80.8	< 0.005	< 0.005	—	81.1

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.09	0.07	5.25	0.57	0.04	0.04	1.52	1.55	0.04	0.28	0.31	—	3,303	3,303	0.02	0.52	0.13	3,459
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	14.7	14.7	< 0.005	< 0.005	0.02	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.01	0.38	0.04	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	244	244	< 0.005	0.04	0.16	256
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.44	2.44	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	40.5	40.5	< 0.005	0.01	0.03	42.4

3.7. Building Construction (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	3.97	5.22	0.01	0.15	—	0.15	0.14	—	0.14	—	965	965	0.04	0.01	—	969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.72	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	—	160	160	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.47	0.44	0.28	5.62	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,052	1,052	0.02	0.04	3.79	1,067
Vendor	0.04	0.04	1.96	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	3.04	1,424
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.39	0.39	4.41	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	947	947	0.02	0.04	0.10	959
Vendor	0.04	0.04	2.07	0.36	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	0.08	1,421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.80	0.00	0.00	1.17	1.17	0.00	0.17	0.17	—	389	389	0.01	0.02	0.66	395
Vendor	0.02	0.02	0.83	0.14	< 0.005	< 0.005	0.29	0.29	< 0.005	0.05	0.05	—	547	547	< 0.005	0.08	0.53	573
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.21	0.21	0.00	0.03	0.03	—	64.5	64.5	< 0.005	< 0.005	0.11	65.4
Vendor	< 0.005	< 0.005	0.15	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	90.6	90.6	< 0.005	0.01	0.09	94.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.62	12.2	15.0	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.62	12.2	15.0	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.25	4.92	6.03	0.01	0.05	—	0.05	0.05	—	0.05	—	965	965	0.04	0.01	—	969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.90	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	160	160	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.44	0.28	5.62	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,052	1,052	0.02	0.04	3.79	1,067
Vendor	0.04	0.04	1.96	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	3.04	1,424
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.44	0.39	0.39	4.41	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	947	947	0.02	0.04	0.10	959
Vendor	0.04	0.04	2.07	0.36	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	0.08	1,421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.80	0.00	0.00	1.17	1.17	0.00	0.17	0.17	—	389	389	0.01	0.02	0.66	395
Vendor	0.02	0.02	0.83	0.14	< 0.005	< 0.005	0.29	0.29	< 0.005	0.05	0.05	—	547	547	< 0.005	0.08	0.53	573
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.21	0.21	0.00	0.03	0.03	—	64.5	64.5	< 0.005	< 0.005	0.11	65.4
Vendor	< 0.005	< 0.005	0.15	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	90.6	90.6	< 0.005	0.01	0.09	94.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.52	4.86	0.01	0.13	—	0.13	0.12	—	0.12	—	900	900	0.04	0.01	—	903
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.89	< 0.005	0.02	—	0.02	0.02	—	0.02	—	149	149	0.01	< 0.005	—	149
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.42	0.28	5.28	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,034	1,034	0.02	0.04	3.46	1,049
Vendor	0.04	0.03	1.85	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	2.76	1,396
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.38	0.36	4.12	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	931	931	0.02	0.04	0.09	943
Vendor	0.04	0.03	1.95	0.35	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	0.07	1,393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.58	0.00	0.00	1.09	1.09	0.00	0.16	0.16	—	357	357	0.01	0.01	0.56	362
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.27	0.27	< 0.005	0.05	0.05	—	500	500	< 0.005	0.08	0.45	523
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.20	0.20	0.00	0.03	0.03	—	59.1	59.1	< 0.005	< 0.005	0.09	59.9
Vendor	< 0.005	< 0.005	0.13	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	82.8	82.8	< 0.005	0.01	0.07	86.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	4.57	5.61	0.01	0.05	—	0.05	0.04	—	0.04	—	900	900	0.04	0.01	—	903
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.83	1.02	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.42	0.28	5.28	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,034	1,034	0.02	0.04	3.46	1,049
Vendor	0.04	0.03	1.85	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	2.76	1,396
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.38	0.36	4.12	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	931	931	0.02	0.04	0.09	943
Vendor	0.04	0.03	1.95	0.35	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	0.07	1,393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.58	0.00	0.00	1.09	1.09	0.00	0.16	0.16	—	357	357	0.01	0.01	0.56	362
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.27	0.27	< 0.005	0.05	0.05	—	500	500	< 0.005	0.08	0.45	523
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.20	0.20	0.00	0.03	0.03	—	59.1	59.1	< 0.005	< 0.005	0.09	59.9
Vendor	< 0.005	< 0.005	0.13	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	82.8	82.8	< 0.005	0.01	0.07	86.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.50	2.15	< 0.005	0.06	—	0.06	0.06	—	0.06	—	327	327	0.01	< 0.005	—	328

Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.39	< 0.005	0.01	—	0.01	0.01	—	0.01	—	54.1	54.1	< 0.005	< 0.005	—	54.3
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.83	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	162	162	< 0.005	0.01	0.54	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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

3.12. Paving (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.46	8.11	10.6	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.46	8.11	10.6	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	1.76	2.29	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.01	< 0.005	—	328
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.32	0.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.83	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	162	162	< 0.005	0.01	0.54	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.8

Architect Coatings	6.83	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.77
Architectural Coatings	1.25	1.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.06	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	207	207	< 0.005	0.01	0.69	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.82	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	186	186	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.8
Architectural Coatings	6.83	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.77
Architectural Coatings	1.25	1.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.06	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	207	207	< 0.005	0.01	0.69	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.82	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	186	186	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	7/1/2026	8/6/2026	7.00	37.0	—
Grading	Grading	8/7/2026	1/27/2027	7.00	174	—
Building Construction	Building Construction	8/7/2026	5/17/2027	7.00	284	—
Paving	Paving	1/28/2027	4/16/2027	7.00	79.0	—
Architectural Coating	Architectural Coating	3/17/2027	5/17/2027	7.00	62.0	—

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	Tier 3	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 3	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 3	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 3	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	Tier 3	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	Tier 3	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 3	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	38.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	95.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	43.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	38.8	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	95.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	43.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	255,397	84,130	28,436

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)
Grading	54,000	—	522	0.00	—
Paving	0.00	0.00	0.00	0.00	10.9

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Discount Club	0.00	0%
Gasoline/Service Station	0.00	0%
Parking Lot	8.58	100%
Enclosed Parking with Elevator	2.30	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	—
Land Use	Based on project-specific information.
Construction: Construction Phases	Based on project-specific information.
Construction: Dust From Material Movement	Construction material movement based on project-specific information. Watering 2x/day based on Rule 223-1, Table 1.
Construction: Architectural Coatings	Updated the VOC emission factor based on EDCAPCD Rule 215 Limits.
Construction: Electricity	—
Construction: On-Road Fugitive Dust	Percent paved roads updated based on Project-specific information.

APPENDIX A-2
CALEEMOD MODEL RUN FOR PROJECT CONSTRUCTION SCENARIO 2 EXCLUDING CONCRETE TRUCKS

EDH Costco Construction – Scenario 2 Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	EDH Costco Construction – Scenario 2
Construction Start Date	7/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Discount Club	165	1000sqft	3.79	165,000	318,349	—	—	—
Gasoline/Service Station	16.0	Pump	0.30	2,259	0.00	—	—	—

Parking Lot	617	Space	8.58	0.00	0.00	—	—	—
Enclosed Parking with Elevator	214	Space	2.30	100,000	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-6	Use Diesel Particulate Filters

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	43.5	43.1	54.9	49.4	0.20	1.61	12.4	14.0	1.49	2.89	4.38	—	21,616	21,616	0.45	1.92	23.5	22,224
Mit.	42.5	42.4	59.8	59.2	0.20	0.45	12.4	12.9	0.42	2.89	3.31	—	21,616	21,616	0.45	1.92	23.5	22,224
% Reduced	2%	2%	-9%	-20%	—	72%	—	8%	72%	—	24%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	43.4	43.0	56.1	48.0	0.20	1.61	12.4	14.0	1.49	2.89	4.38	—	21,488	21,488	0.45	1.92	0.61	22,073
Mit.	42.5	42.3	61.0	57.8	0.20	0.45	12.4	12.9	0.42	2.89	3.31	—	21,488	21,488	0.45	1.92	0.61	22,073
% Reduced	2%	2%	-9%	-21%	—	72%	—	8%	72%	—	24%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	8.06	7.89	25.5	22.3	0.08	0.77	5.00	5.78	0.72	1.17	1.88	—	9,219	9,219	0.20	0.78	4.12	9,461
Mit.	7.60	7.55	26.9	26.2	0.08	0.20	5.00	5.20	0.18	1.17	1.35	—	9,219	9,219	0.20	0.78	4.12	9,461
% Reduced	6%	4%	-6%	-18%	—	75%	—	10%	75%	—	28%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.47	1.44	4.65	4.08	0.02	0.14	0.91	1.05	0.13	0.21	0.34	—	1,526	1,526	0.03	0.13	0.68	1,566
Mit.	1.39	1.38	4.91	4.79	0.02	0.04	0.91	0.95	0.03	0.21	0.25	—	1,526	1,526	0.03	0.13	0.68	1,566
% Reduced	6%	4%	-6%	-18%	—	75%	—	10%	75%	—	28%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.79	4.89	54.9	49.4	0.20	1.61	12.4	14.0	1.49	2.89	4.38	—	21,616	21,616	0.45	1.92	23.5	22,224
2027	43.5	43.1	19.4	31.5	0.05	0.66	4.77	5.43	0.61	0.71	1.32	—	6,778	6,778	0.19	0.28	7.45	6,875
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	5.74	4.83	56.1	48.0	0.20	1.61	12.4	14.0	1.49	2.89	4.38	—	21,488	21,488	0.45	1.92	0.61	22,073
2027	43.4	43.0	52.9	47.2	0.20	1.49	12.4	13.9	1.38	2.89	4.27	—	21,240	21,240	0.45	1.86	0.56	21,808
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.70	2.28	25.5	22.3	0.08	0.77	5.00	5.78	0.72	1.17	1.88	—	9,219	9,219	0.20	0.78	4.12	9,461
2027	8.06	7.89	9.07	11.4	0.03	0.28	2.20	2.48	0.26	0.41	0.67	—	3,398	3,398	0.09	0.22	1.60	3,468
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.49	0.42	4.65	4.08	0.02	0.14	0.91	1.05	0.13	0.21	0.34	—	1,526	1,526	0.03	0.13	0.68	1,566
2027	1.47	1.44	1.66	2.08	0.01	0.05	0.40	0.45	0.05	0.07	0.12	—	563	563	0.01	0.04	0.26	574

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.87	2.66	59.8	59.2	0.20	0.45	12.4	12.9	0.42	2.89	3.31	—	21,616	21,616	0.45	1.92	23.5	22,224
2027	42.5	42.4	23.4	34.2	0.05	0.26	4.77	5.02	0.24	0.71	0.94	—	6,778	6,778	0.19	0.28	7.45	6,875
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.82	2.61	61.0	57.8	0.20	0.45	12.4	12.9	0.42	2.89	3.31	—	21,488	21,488	0.45	1.92	0.61	22,073
2027	42.5	42.3	59.9	57.4	0.20	0.44	12.4	12.9	0.41	2.89	3.30	—	21,240	21,240	0.45	1.86	0.56	21,808
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.23	1.15	26.9	26.2	0.08	0.20	5.00	5.20	0.18	1.17	1.35	—	9,219	9,219	0.20	0.78	4.12	9,461
2027	7.60	7.55	10.7	12.9	0.03	0.10	2.20	2.30	0.09	0.41	0.50	—	3,398	3,398	0.09	0.22	1.60	3,468
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.23	0.21	4.91	4.79	0.02	0.04	0.91	0.95	0.03	0.21	0.25	—	1,526	1,526	0.03	0.13	0.68	1,566
2027	1.39	1.38	1.95	2.35	0.01	0.02	0.40	0.42	0.02	0.07	0.09	—	563	563	0.01	0.04	0.26	574

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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

Off-Road Equipment	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	2.96	2.92	< 0.005	0.13	—	0.13	0.12	—	0.12	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.54	0.53	< 0.005	0.02	—	0.02	0.02	—	0.02	—	88.9	88.9	< 0.005	< 0.005	—	89.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.03	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	193	193	< 0.005	0.01	0.70	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.03	18.2

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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	0.90	24.0	28.3	0.05	0.14	—	0.14	0.13	—	0.13	—	5,298	5,298	0.21	0.04	—	5,316
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.09	2.44	2.87	< 0.005	0.01	—	0.01	0.01	—	0.01	—	537	537	0.02	< 0.005	—	539
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.02	0.02	0.44	0.52	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	88.9	88.9	< 0.005	< 0.005	—	89.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	1.03	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	193	193	< 0.005	0.01	0.70	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	18.0	18.0	< 0.005	< 0.005	0.03	18.2
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.97	2.97	< 0.005	< 0.005	0.01	3.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2026) - Unmitigated

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

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

Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.62	3.04	27.2	27.6	0.06	1.12	—	1.12	1.03	—	1.03	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.46	1.23	11.0	11.1	0.02	0.45	—	0.45	0.42	—	0.42	—	2,658	2,658	0.11	0.02	—	2,667
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.58	0.58	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.22	2.00	2.03	< 0.005	0.08	—	0.08	0.08	—	0.08	—	440	440	0.02	< 0.005	—	441

Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.18	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	220	220	< 0.005	0.01	0.79	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	15.5	1.68	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,990	9,990	0.06	1.59	15.9	10,482
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	16.5	1.72	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,989	9,989	0.06	1.59	0.41	10,466
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.25	0.25	0.00	0.04	0.04	—	81.5	81.5	< 0.005	< 0.005	0.14	82.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.08	6.58	0.68	0.04	0.04	1.78	1.82	0.04	0.33	0.37	—	4,023	4,023	0.02	0.64	2.77	4,218
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.20	0.12	0.01	0.01	0.33	0.33	0.01	0.06	0.07	—	666	666	< 0.005	0.11	0.46	698

3.4. Grading (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.26	29.8	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.30	1.26	29.8	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,599	6,599	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.51	12.0	14.3	0.02	0.09	—	0.09	0.08	—	0.08	—	2,658	2,658	0.11	0.02	—	2,667
Dust From Material Movement	—	—	—	—	—	—	1.45	1.45	—	0.58	0.58	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	2.19	2.60	< 0.005	0.02	—	0.02	0.01	—	0.01	—	440	440	0.02	< 0.005	—	441
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.18	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	220	220	< 0.005	0.01	0.79	224
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	15.5	1.68	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,990	9,990	0.06	1.59	15.9	10,482
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.92	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	198	198	< 0.005	0.01	0.02	201
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	16.5	1.72	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,989	9,989	0.06	1.59	0.41	10,466
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.38	0.00	0.00	0.25	0.25	0.00	0.04	0.04	—	81.5	81.5	< 0.005	< 0.005	0.14	82.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	0.08	6.58	0.68	0.04	0.04	1.78	1.82	0.04	0.33	0.37	—	4,023	4,023	0.02	0.64	2.77	4,218
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.20	0.12	0.01	0.01	0.33	0.33	0.01	0.06	0.07	—	666	666	< 0.005	0.11	0.46	698

3.5. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	1.89	2.02	< 0.005	0.08	—	0.08	0.07	—	0.07	—	488	488	0.02	< 0.005	—	490
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.35	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	80.8	80.8	< 0.005	< 0.005	—	81.1
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	15.6	1.68	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,786	9,786	0.06	1.54	0.38	10,248
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	14.7	14.7	< 0.005	< 0.005	0.02	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.14	0.12	0.01	0.01	0.33	0.34	0.01	0.06	0.07	—	724	724	< 0.005	0.11	0.47	759
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.44	2.44	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.21	0.02	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	120	120	< 0.005	0.02	0.08	126

3.6. Grading (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.26	29.7	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.61	3.61	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.09	2.20	2.62	< 0.005	0.02	—	0.02	0.01	—	0.01	—	488	488	0.02	< 0.005	—	490
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.40	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	80.8	80.8	< 0.005	< 0.005	—	81.1

Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.86	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	195	195	< 0.005	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.27	0.21	15.6	1.68	0.10	0.10	4.50	4.60	0.10	0.82	0.92	—	9,786	9,786	0.06	1.54	0.38	10,248
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	14.7	14.7	< 0.005	< 0.005	0.02	14.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.14	0.12	0.01	0.01	0.33	0.34	0.01	0.06	0.07	—	724	724	< 0.005	0.11	0.47	759
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.44	2.44	< 0.005	< 0.005	< 0.005	2.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.21	0.02	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	120	120	< 0.005	0.02	0.08	126

3.7. Building Construction (2026) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	3.97	5.22	0.01	0.15	—	0.15	0.14	—	0.14	—	965	965	0.04	0.01	—	969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.72	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	—	160	160	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.47	0.44	0.28	5.62	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,052	1,052	0.02	0.04	3.79	1,067
Vendor	0.04	0.04	1.96	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	3.04	1,424
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.44	0.39	0.39	4.41	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	947	947	0.02	0.04	0.10	959
Vendor	0.04	0.04	2.07	0.36	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	0.08	1,421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.80	0.00	0.00	1.17	1.17	0.00	0.17	0.17	—	389	389	0.01	0.02	0.66	395
Vendor	0.02	0.02	0.83	0.14	< 0.005	< 0.005	0.29	0.29	< 0.005	0.05	0.05	—	547	547	< 0.005	0.08	0.53	573
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.21	0.21	0.00	0.03	0.03	—	64.5	64.5	< 0.005	< 0.005	0.11	65.4
Vendor	< 0.005	< 0.005	0.15	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	90.6	90.6	< 0.005	0.01	0.09	94.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.62	12.2	15.0	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.62	12.2	15.0	0.02	0.13	—	0.13	0.12	—	0.12	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.25	4.92	6.03	0.01	0.05	—	0.05	0.05	—	0.05	—	965	965	0.04	0.01	—	969
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.90	1.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	160	160	0.01	< 0.005	—	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.44	0.28	5.62	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,052	1,052	0.02	0.04	3.79	1,067
Vendor	0.04	0.04	1.96	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	3.04	1,424
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.44	0.39	0.39	4.41	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	947	947	0.02	0.04	0.10	959
Vendor	0.04	0.04	2.07	0.36	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,358	1,358	< 0.005	0.21	0.08	1,421
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.14	1.80	0.00	0.00	1.17	1.17	0.00	0.17	0.17	—	389	389	0.01	0.02	0.66	395
Vendor	0.02	0.02	0.83	0.14	< 0.005	< 0.005	0.29	0.29	< 0.005	0.05	0.05	—	547	547	< 0.005	0.08	0.53	573
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.33	0.00	0.00	0.21	0.21	0.00	0.03	0.03	—	64.5	64.5	< 0.005	< 0.005	0.11	65.4
Vendor	< 0.005	< 0.005	0.15	0.03	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	90.6	90.6	< 0.005	0.01	0.09	94.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	0.39	3.52	4.86	0.01	0.13	—	0.13	0.12	—	0.12	—	900	900	0.04	0.01	—	903
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.64	0.89	< 0.005	0.02	—	0.02	0.02	—	0.02	—	149	149	0.01	< 0.005	—	149
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.42	0.28	5.28	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,034	1,034	0.02	0.04	3.46	1,049
Vendor	0.04	0.03	1.85	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	2.76	1,396
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.38	0.36	4.12	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	931	931	0.02	0.04	0.09	943
Vendor	0.04	0.03	1.95	0.35	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	0.07	1,393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.58	0.00	0.00	1.09	1.09	0.00	0.16	0.16	—	357	357	0.01	0.01	0.56	362
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.27	0.27	< 0.005	0.05	0.05	—	500	500	< 0.005	0.08	0.45	523
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.20	0.20	0.00	0.03	0.03	—	59.1	59.1	< 0.005	< 0.005	0.09	59.9
Vendor	< 0.005	< 0.005	0.13	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	82.8	82.8	< 0.005	0.01	0.07	86.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.23	4.57	5.61	0.01	0.05	—	0.05	0.04	—	0.04	—	900	900	0.04	0.01	—	903
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.83	1.02	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.42	0.28	5.28	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	1,034	1,034	0.02	0.04	3.46	1,049
Vendor	0.04	0.03	1.85	0.34	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	2.76	1,396
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.38	0.36	4.12	0.00	0.00	2.97	2.97	0.00	0.43	0.43	—	931	931	0.02	0.04	0.09	943
Vendor	0.04	0.03	1.95	0.35	0.01	0.01	0.73	0.74	0.01	0.13	0.14	—	1,333	1,333	< 0.005	0.20	0.07	1,393
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.12	1.58	0.00	0.00	1.09	1.09	0.00	0.16	0.16	—	357	357	0.01	0.01	0.56	362
Vendor	0.02	0.01	0.72	0.13	< 0.005	< 0.005	0.27	0.27	< 0.005	0.05	0.05	—	500	500	< 0.005	0.08	0.45	523
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.03	0.03	0.02	0.29	0.00	0.00	0.20	0.20	0.00	0.03	0.03	—	59.1	59.1	< 0.005	< 0.005	0.09	59.9
Vendor	< 0.005	< 0.005	0.13	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	—	82.8	82.8	< 0.005	0.01	0.07	86.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.50	2.15	< 0.005	0.06	—	0.06	0.06	—	0.06	—	327	327	0.01	< 0.005	—	328

Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.27	0.39	< 0.005	0.01	—	0.01	0.01	—	0.01	—	54.1	54.1	< 0.005	< 0.005	—	54.3
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.83	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	162	162	< 0.005	0.01	0.54	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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

3.12. Paving (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.46	8.11	10.6	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.46	8.11	10.6	0.01	0.11	—	0.11	0.10	—	0.10	—	1,511	1,511	0.06	0.01	—	1,516
Paving	0.36	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	1.76	2.29	< 0.005	0.02	—	0.02	0.02	—	0.02	—	327	327	0.01	< 0.005	—	328
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.32	0.42	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.1	54.1	< 0.005	< 0.005	—	54.3
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.83	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	162	162	< 0.005	0.01	0.54	165
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.8

Architect Coatings	6.83	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.77
Architectural Coatings	1.25	1.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.06	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	207	207	< 0.005	0.01	0.69	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.82	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	186	186	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	40.2	40.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	22.7	22.7	< 0.005	< 0.005	—	22.8
Architectural Coatings	6.83	6.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.75	3.75	< 0.005	< 0.005	—	3.77
Architectural Coatings	1.25	1.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.06	1.06	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	207	207	< 0.005	0.01	0.69	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.07	0.82	0.00	0.00	0.59	0.59	0.00	0.09	0.09	—	186	186	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.05	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	7/1/2026	8/6/2026	7.00	37.0	—
Grading	Grading	8/7/2026	1/27/2027	7.00	174	—
Building Construction	Building Construction	8/7/2026	5/17/2027	7.00	284	—
Paving	Paving	1/28/2027	4/16/2027	7.00	79.0	—
Architectural Coating	Architectural Coating	3/17/2027	5/17/2027	7.00	62.0	—

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	Tier 3	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 3	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 3	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 3	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	Tier 3	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	Tier 3	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 3	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	115	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	95.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	43.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	115	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	95.5	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	43.8	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	19.1	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	255,397	84,130	28,436

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)
Grading	107,000	53,000	522	0.00	—
Paving	0.00	0.00	0.00	0.00	10.9

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Discount Club	0.00	0%
Gasoline/Service Station	0.00	0%
Parking Lot	8.58	100%
Enclosed Parking with Elevator	2.30	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	—
Land Use	Based on project-specific information.
Construction: Construction Phases	Based on project-specific information.
Construction: Dust From Material Movement	Construction material movement based on project-specific information. Watering 2x/day based on Rule 223-1, Table 1.
Construction: Architectural Coatings	Updated the VOC emission factor based on EDCAPCD Rule 215 Limits.
Construction: Electricity	—
Construction: On-Road Fugitive Dust	Percent paved roads updated based on Project-specific information.

APPENDIX A-3
CALEEMOD MODEL RUN FOR CONCRETE TRUCK EMISSIONS DURING PROJECT CONSTRUCTION

EDH Costco Construction - Concrete Trucks Custom Report

Table of Contents

5.18.2. Sequestration

5.18.2.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	EDH Costco Construction - Concrete Trucks
Construction Start Date	12/3/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Discount Club	165	1000sqft	3.79	165,000	318,349	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.14	0.11	7.50	1.07	0.04	0.04	1.79	1.83	0.04	0.33	0.37	—	4,049	4,049	0.03	0.65	0.16	4,242
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	0.16	0.02	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	88.8	88.8	< 0.005	0.01	0.06	93.1
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.14	0.11	7.50	1.07	0.04	0.04	1.79	1.83	0.04	0.33	0.37	—	4,049	4,049	0.03	0.65	0.16	4,242
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	< 0.005	< 0.005	0.16	0.02	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	88.8	88.8	< 0.005	0.01	0.06	93.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4

3. Construction Emissions Details

3.1. Building Construction - Concrete Pour (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.14	0.11	7.50	1.07	0.04	0.04	1.79	1.83	0.04	0.33	0.37	—	4,049	4,049	0.03	0.65	0.16	4,242
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.16	0.02	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	88.8	88.8	< 0.005	0.01	0.06	93.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Building Construction - Concrete Pour	Building Construction	12/3/2026	12/10/2026	7.00	8.00	—

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

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Building Construction - Concrete Pour	—	—	—	—
Building Construction - Concrete Pour	Worker	0.00	0.00	LDA,LDT1,LDT2
Building Construction - Concrete Pour	Vendor	104	8.80	HHDT
Building Construction - Concrete Pour	Hauling	0.00	0.00	HHDT
Building Construction - Concrete Pour	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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

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
Discount Club	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

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)

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	—
Land Use	Project-specific information was provided by the Project Applicant.
Construction: Construction Phases	Based on project-specific information.
Construction: Off-Road Equipment	Concrete truck run only.
Construction: Trips and VMT	Vendor fleet mix based on project-specific information.
Construction: Electricity	—
Construction: On-Road Fugitive Dust	Percent paved roads updated based on Project-specific information.

APPENDIX A-4
CALEEMOD MODEL RUN FOR SITE ACCESS AND ROADWAY IMPROVEMENTS

Site Access and Roadway Improvements Custom Report

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5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Site Access and Roadway Improvements
Construction Start Date	7/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Road Widening	0.60	Mile	7.20	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-6	Use Diesel Particulate Filters

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.69	0.58	5.73	5.26	0.02	0.24	1.48	1.71	0.22	0.24	0.44	—	1,815	1,815	0.03	0.18	2.10	1,872
Mit.	0.42	0.37	5.15	5.25	0.02	0.09	1.48	1.55	0.08	0.24	0.30	—	1,815	1,815	0.03	0.18	2.10	1,872
% Reduced	39%	37%	10%	< 0.5%	—	64%	—	9%	64%	—	32%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.33	1.12	9.42	10.5	0.02	0.33	0.54	0.80	0.31	0.07	0.37	—	2,695	2,695	0.11	0.03	0.02	2,706
Mit.	0.78	0.72	12.2	14.7	0.02	0.13	0.54	0.62	0.11	0.07	0.18	—	2,695	2,695	0.11	0.03	0.02	2,706
% Reduced	41%	36%	-30%	-39%	—	62%	—	22%	63%	—	51%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	0.37	3.00	3.31	0.01	0.13	0.32	0.46	0.12	0.05	0.17	—	742	742	0.03	0.02	0.16	750
Mit.	0.26	0.23	3.20	3.90	0.01	0.05	0.32	0.37	0.04	0.05	0.09	—	742	742	0.03	0.02	0.16	750
% Reduced	40%	37%	-7%	-18%	—	64%	—	19%	64%	—	47%	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.08	0.07	0.55	0.60	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	123	123	< 0.005	< 0.005	0.03	124
Mit.	0.05	0.04	0.58	0.71	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	123	123	< 0.005	< 0.005	0.03	124
% Reduced	40%	37%	-7%	-18%	—	64%	—	19%	64%	—	47%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.69	0.58	5.73	5.26	0.02	0.24	1.48	1.71	0.22	0.24	0.44	—	1,815	1,815	0.03	0.18	2.10	1,872
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.33	1.12	9.42	10.5	0.02	0.33	0.54	0.80	0.31	0.07	0.37	—	2,695	2,695	0.11	0.03	0.02	2,706
2027	1.29	1.08	8.89	10.4	0.02	0.31	0.47	0.78	0.28	0.07	0.35	—	2,692	2,692	0.11	0.03	0.01	2,702
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.43	0.37	3.00	3.31	0.01	0.13	0.32	0.46	0.12	0.05	0.17	—	742	742	0.03	0.02	0.16	750
2027	0.17	0.14	1.23	1.58	< 0.005	0.05	0.07	0.12	0.04	0.01	0.05	—	362	362	0.01	< 0.005	0.04	363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.55	0.60	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	123	123	< 0.005	< 0.005	0.03	124
2027	0.03	0.03	0.22	0.29	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	59.9	59.9	< 0.005	< 0.005	0.01	60.1

2.3. Construction Emissions by Year, Mitigated

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

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.42	0.37	5.15	5.25	0.02	0.09	1.48	1.55	0.08	0.24	0.30	—	1,815	1,815	0.03	0.18	2.10	1,872
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.78	0.72	12.2	14.7	0.02	0.13	0.54	0.62	0.11	0.07	0.18	—	2,695	2,695	0.11	0.03	0.02	2,706
2027	0.77	0.71	12.2	14.6	0.02	0.12	0.47	0.59	0.11	0.07	0.18	—	2,692	2,692	0.11	0.03	0.01	2,702
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.26	0.23	3.20	3.90	0.01	0.05	0.32	0.37	0.04	0.05	0.09	—	742	742	0.03	0.02	0.16	750
2027	0.10	0.09	1.65	2.06	< 0.005	0.01	0.07	0.09	0.01	0.01	0.02	—	362	362	0.01	< 0.005	0.04	363
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.05	0.04	0.58	0.71	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	123	123	< 0.005	< 0.005	0.03	124
2027	0.02	0.02	0.30	0.38	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	59.9	59.9	< 0.005	< 0.005	0.01	60.1

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	0.46	4.04	4.49	0.01	0.21	—	0.21	0.20	—	0.20	—	632	632	0.03	0.01	—	634
Demolition	—	—	—	—	—	—	0.69	0.69	—	0.10	0.10	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.29	0.32	< 0.005	0.02	—	0.02	0.01	—	0.01	—	45.0	45.0	< 0.005	< 0.005	—	45.2
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.45	7.45	< 0.005	< 0.005	—	7.48
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.59	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	110	110	< 0.005	< 0.005	0.40	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.02	1.67	0.18	0.01	0.01	0.48	0.49	0.01	0.09	0.10	—	1,073	1,073	0.01	0.17	1.70	1,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	7.21	7.21	< 0.005	< 0.005	0.01	7.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.01	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	76.4	76.4	< 0.005	0.01	0.05	80.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.19	1.19	< 0.005	< 0.005	< 0.005	1.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

3.2. Linear, Grubbing & Land Clearing (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.25	3.45	4.48	0.01	0.06	—	0.06	0.05	—	0.05	—	632	632	0.03	0.01	—	634
Demolition	—	—	—	—	—	—	0.69	0.69	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.02	0.25	0.32	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.0	45.0	< 0.005	< 0.005	—	45.2
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.45	7.45	< 0.005	< 0.005	—	7.48
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.59	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	110	110	< 0.005	< 0.005	0.40	112
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	0.02	1.67	0.18	0.01	0.01	0.48	0.49	0.01	0.09	0.10	—	1,073	1,073	0.01	0.17	1.70	1,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	7.21	7.21	< 0.005	< 0.005	0.01	7.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.01	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	76.4	76.4	< 0.005	0.01	0.05	80.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.19	1.19	< 0.005	< 0.005	< 0.005	1.21

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

3.3. Linear, Grading & Excavation (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.53	4.14	4.43	0.01	0.24	—	0.24	0.22	—	0.22	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.53	4.14	4.43	0.01	0.24	—	0.24	0.22	—	0.22	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.18	0.15	1.19	1.28	< 0.005	0.07	—	0.07	0.06	—	0.06	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.22	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.1	30.1	< 0.005	< 0.005	—	30.2
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.59	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	110	110	< 0.005	< 0.005	0.40	112
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	0.07	32.5
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	0.01	7.82
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.46	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	99.1	99.1	< 0.005	< 0.005	0.01	100
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	< 0.005	32.4
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	< 0.005	7.80
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.09	0.09	0.00	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	0.05	29.5

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.92	8.92	< 0.005	< 0.005	0.01	9.34
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.25
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	4.82	4.82	< 0.005	< 0.005	0.01	4.89
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.48	1.48	< 0.005	< 0.005	< 0.005	1.55
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.37

3.4. Linear, Grading & Excavation (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.32	3.55	4.42	0.01	0.09	—	0.09	0.08	—	0.08	—	632	632	0.03	0.01	—	634
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.32	3.55	4.42	0.01	0.09	—	0.09	0.08	—	0.08	—	632	632	0.03	0.01	—	634

Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	1.02	1.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	182	182	0.01	< 0.005	—	182
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.1	30.1	< 0.005	< 0.005	—	30.2
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.59	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	110	110	< 0.005	< 0.005	0.40	112
Vendor	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	0.07	32.5
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	0.01	7.82

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.46	0.00	0.00	0.31	0.31	0.00	0.04	0.04	—	99.1	99.1	< 0.005	< 0.005	0.01	100
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	31.0	31.0	< 0.005	< 0.005	< 0.005	32.4
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.45	7.45	< 0.005	< 0.005	< 0.005	7.80
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.09	0.09	0.00	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	0.05	29.5
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.92	8.92	< 0.005	< 0.005	0.01	9.34
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.14	2.14	< 0.005	< 0.005	< 0.005	2.25
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	4.82	4.82	< 0.005	< 0.005	0.01	4.89
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.48	1.48	< 0.005	< 0.005	< 0.005	1.55
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.37

3.5. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.26	1.06	9.36	9.84	0.02	0.33	—	0.33	0.31	—	0.31	—	2,546	2,546	0.10	0.02	—	2,555
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.36	1.43	< 0.005	0.05	—	0.05	0.04	—	0.04	—	370	370	0.01	< 0.005	—	371
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.25	0.26	< 0.005	0.01	—	0.01	0.01	—	0.01	—	61.2	61.2	< 0.005	< 0.005	—	61.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	149	149	< 0.005	0.01	0.02	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.07	0.07	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.04	22.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.66	12.2	14.0	0.02	0.13	—	0.13	0.11	—	0.11	—	2,546	2,546	0.10	0.02	—	2,555
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.10	1.77	2.03	< 0.005	0.02	—	0.02	0.02	—	0.02	—	370	370	0.01	< 0.005	—	371
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.32	0.37	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	61.2	61.2	< 0.005	< 0.005	—	61.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.69	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	149	149	< 0.005	0.01	0.02	151
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.07	0.07	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.04	22.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	3.65	3.65	< 0.005	< 0.005	0.01	3.70
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Linear, Drainage, Utilities, & Sub-Grade (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.02	8.83	9.77	0.02	0.31	—	0.31	0.28	—	0.28	—	2,545	2,545	0.10	0.02	—	2,554
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.94	1.04	< 0.005	0.03	—	0.03	0.03	—	0.03	—	272	272	0.01	< 0.005	—	273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	45.0	45.0	< 0.005	< 0.005	—	45.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	16.0	16.0	< 0.005	< 0.005	0.03	16.2
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.64	2.64	< 0.005	< 0.005	< 0.005	2.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Linear, Drainage, Utilities, & Sub-Grade (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.65	12.1	14.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,545	2,545	0.10	0.02	—	2,554
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	1.30	1.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	272	272	0.01	< 0.005	—	273
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.24	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	45.0	45.0	< 0.005	< 0.005	—	45.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.65	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	146	146	< 0.005	0.01	0.01	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	16.0	16.0	< 0.005	< 0.005	0.03	16.2
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.64	2.64	< 0.005	< 0.005	< 0.005	2.68
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Linear, Paving (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.61	3.99	0.01	0.11	—	0.11	0.10	—	0.10	—	614	614	0.02	< 0.005	—	616
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.28	0.43	< 0.005	0.01	—	0.01	0.01	—	0.01	—	65.6	65.6	< 0.005	< 0.005	—	65.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	—	10.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.23	0.23	0.00	0.03	0.03	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	7.98	7.98	< 0.005	< 0.005	0.01	8.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Linear, Paving (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.10	3.19	4.31	0.01	0.02	—	0.02	0.02	—	0.02	—	614	614	0.02	< 0.005	—	616
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.34	0.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	65.6	65.6	< 0.005	< 0.005	—	65.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.9	10.9	< 0.005	< 0.005	—	10.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.32	0.00	0.00	0.23	0.23	0.00	0.03	0.03	—	73.1	73.1	< 0.005	< 0.005	0.01	74.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	7.98	7.98	< 0.005	< 0.005	0.01	8.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.32	1.32	< 0.005	< 0.005	< 0.005	1.34
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	7/1/2026	7/26/2026	7.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	7/27/2026	11/8/2026	7.00	105	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	11/9/2026	2/8/2027	7.00	92.0	—
Linear, Paving	Linear, Paving	2/9/2027	3/19/2027	7.00	39.0	—

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
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43

Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Tier 3	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Tier 3	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74

Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Tier 3	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Tier 3	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Paving	Pavers	Diesel	Tier 3	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Tier 3	1.00	8.00	89.0	0.36
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	10.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	12.3	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	10.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.09	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	15.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT

Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	10.0	14.3	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	8.80	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	12.3	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	10.0	14.3	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	8.80	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.09	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	15.0	14.3	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	8.80	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT

Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	7.50	14.3	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	8.80	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	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)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	0.00	0.00	0.00	1,284	—
Linear, Grading & Excavation	70.0	—	7.20	0.00	—

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Widening	7.20	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	88.1	204	0.03	< 0.005
2027	58.7	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Construction: Demolition	Construction demolition material movement based on project-specific information. Watering 2x/day based on Rule 223-1, Table 1.
Construction: Trips and VMT	—
Construction: Construction Phases	Based on project-specific information.
Construction: Dust From Material Movement	Construction material movement based on project-specific information. Watering 2x/day based on Rule 223-1, Table 1.
Characteristics: Utility Information	—
Construction: Electricity	—
Construction: Off-Road Equipment	Equipment list updated to account for overlap of Project Construction and Site Access and Roadway Improvements Construction.
Construction: On-Road Fugitive Dust	Percent paved roads updated based on Project-specific information.

APPENDIX A-5
CONSTRUCTION EMISSION CALCULATION TABLES

List of Tables

Table A-1. Greenhouse Gas Emission Factors for Concrete Truck Idling
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Concrete Truck Fleet Mix [1]	CO_2 Emission Factor [2] (grams/idle-minute)	CH_4 Emission Factor [2] (grams/idle-minute)	N_2O Emission Factor [2] (grams/idle-minute)
HHDT	Diesel	100%	95	0.0018	0
Weighted Average Emission Factor [3]			95	0.0018	0

Notes:

[1] Concrete trucks are conservatively assumed to be diesel-fueled HHDT.

[2] Idling emission factors were obtained from the default EMFAC2021 project-level output for El Dorado (MC) sub-area in calendar year 2026.

[3] Weighted average emission factors for concrete trucks are calculated as the sumproduct of the project specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
HHDT - Heavy Heavy-Duty Truck
MC - Mountain County
N_2O - nitrous oxide

Table A-2. Greenhouse Gas Emissions from Concrete Trucks During Project Construction
El Dorado Hills Costco Project
El Dorado Hills, California

Concrete Truck Activity	Number of Days of Concrete Truck Activity [1] (days)	Daily Trips [1] (round trips/day)	Annual Trips (round trips/year)	Idle Duration [1] (minutes/ round trip)	CO_2 Emissions (MT/year)	CH_4 Emissions (MT/year)	N_2O Emissions (MT/year)	CO_2e Emissions (MT/year)
Idling [2]	8	52	416	60	2.4	4.5E-05	0	2.4
On-Road Travel [3]	8	52	416	-	15	9.8E-05	0.0023	15
				Total Emissions	**17**	**1.4E-04**	**0.0023**	**18**

Notes:

[1] Based on Project-specific information.

[2] Idling emissions were estimated as a product of the emission factors from **Table A-1**, the idle duration per round trip, and the number of round trips per year.

[3] Obtained from the CalEEMod model run for concrete trucks in **Appendix A-3**.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
MT - metric tons
N_2O - nitrous oxide

APPENDIX B
EMISSION CALCULATIONS FOR PROJECT OPERATION

Appendix B-1: CalEEMod Model Run for Project Operation
Appendix B-2: Emission Calculation Tables for Project Operation

APPENDIX B-1
CALEEMOD MODEL RUN FOR PROJECT OPERATION

EDH Costco Operation Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	EDH Costco Operation
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Discount Club	165	1000sqft	3.79	165,000	318,349	—	—	—
Gasoline/Service Station	16.0	Pump	0.30	2,259	0.00	—	—	—

Enclosed Parking with Elevator	214	Space	2.30	100,000	0.00	—	—	—
Parking Lot	617	Space	8.58	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Water	W-4	Require Low-Flow Water Fixtures
Water	W-5	Design Water-Efficient Landscapes

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.76	5.49	2.77	14.0	0.01	0.17	0.00	0.17	0.17	0.00	0.17	411	990	1,401	41.4	0.09	0.79	2,462
Mit.	5.76	5.49	2.77	14.0	0.01	0.17	0.00	0.17	0.17	0.00	0.17	408	990	1,398	41.1	0.08	0.79	2,449
% Reduced	—	—	—	—	—	—	—	—	—	—	—	1%	—	< 0.5%	1%	9%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.69	3.59	2.68	2.41	0.01	0.15	0.00	0.15	0.15	0.00	0.15	411	942	1,353	41.4	0.09	0.79	2,414
Mit.	3.69	3.59	2.68	2.41	0.01	0.15	0.00	0.15	0.15	0.00	0.15	408	942	1,350	41.1	0.08	0.79	2,401
% Reduced	—	—	—	—	—	—	—	—	—	—	—	1%	—	< 0.5%	1%	9%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	3.93	3.82	0.74	6.34	< 0.005	0.06	0.00	0.06	0.05	0.00	0.05	411	603	1,014	41.4	0.08	0.79	2,074
Mit.	3.93	3.82	0.74	6.34	< 0.005	0.06	0.00	0.06	0.05	0.00	0.05	408	603	1,011	41.1	0.08	0.79	2,061
% Reduced	—	—	—	—	—	—	—	—	—	—	—	1%	—	< 0.5%	1%	9%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.72	0.70	0.14	1.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	68.0	99.9	168	6.85	0.01	0.13	343
Mit.	0.72	0.70	0.14	1.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	67.5	99.9	167	6.80	0.01	0.13	341
% Reduced	—	—	—	—	—	—	—	—	—	—	—	1%	—	< 0.5%	1%	9%	—	1%

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	4.81	4.65	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.45	0.06	—	102
Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	5.76	5.49	2.77	14.0	0.01	0.17	0.00	0.17	0.17	0.00	0.17	411	990	1,401	41.4	0.09	0.79	2,462
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	2.74	2.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.45	0.06	—	102
Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	3.69	3.59	2.68	2.41	0.01	0.15	0.00	0.15	0.15	0.00	0.15	411	942	1,353	41.4	0.09	0.79	2,414
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	3.76	3.69	0.05	5.73	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.6	23.6	< 0.005	< 0.005	—	23.7
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.45	0.06	—	102
Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.12	0.11	0.31	0.29	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	57.5	57.5	< 0.005	< 0.005	0.00	57.7
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	3.93	3.82	0.74	6.34	< 0.005	0.06	0.00	0.06	0.05	0.00	0.05	411	603	1,014	41.4	0.08	0.79	2,074
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.69	0.67	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.04	< 0.005	—	77.7
Water	—	—	—	—	—	—	—	—	—	—	—	3.94	0.00	3.94	0.41	0.01	—	17.0
Waste	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Stationary	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0	—	—	—	11.0
Total	0.72	0.70	0.14	1.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	68.0	99.9	168	6.85	0.01	0.13	343

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	4.81	4.65	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.13	0.05	—	89.1
Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	5.76	5.49	2.77	14.0	0.01	0.17	0.00	0.17	0.17	0.00	0.17	408	990	1,398	41.1	0.08	0.79	2,449
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	2.74	2.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.13	0.05	—	89.1

Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	3.69	3.59	2.68	2.41	0.01	0.15	0.00	0.15	0.15	0.00	0.15	408	942	1,350	41.1	0.08	0.79	2,401
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	3.76	3.69	0.05	5.73	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.6	23.6	< 0.005	< 0.005	—	23.7
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.24	0.02	—	469
Water	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.13	0.05	—	89.1
Waste	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Stationary	0.12	0.11	0.31	0.29	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	57.5	57.5	< 0.005	< 0.005	0.00	57.7
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	66.2	66.2	—	—	—	66.2
Total	3.93	3.82	0.74	6.34	< 0.005	0.06	0.00	0.06	0.05	0.00	0.05	408	603	1,011	41.1	0.08	0.79	2,061
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.69	0.67	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.04	< 0.005	—	77.7
Water	—	—	—	—	—	—	—	—	—	—	—	3.43	0.00	3.43	0.35	0.01	—	14.8
Waste	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Stationary	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55
Vegetation	—	—	—	—	—	—	—	—	—	—	—	—	11.0	11.0	—	—	—	11.0

Total	0.72	0.70	0.14	1.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	67.5	99.9	167	6.80	0.01	0.13	341

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

4.1.2. Mitigated

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

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.13	0.02	—	7.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.27
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.04
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	1.81
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.20	0.02	—	12.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.13	0.02	—	7.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.27
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.04
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	1.81
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.20	0.02	—	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.02	< 0.005	—	1.32
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.04
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.01	< 0.005	—	0.34
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.30
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.00

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.13	0.02	—	7.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.27
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.04
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	1.81
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.20	0.02	—	12.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.13	0.02	—	7.94
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.27
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.04
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	1.81
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.20	0.02	—	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.02	< 0.005	—	1.32
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.04
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.01	< 0.005	—	0.34
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	< 0.005	< 0.005	—	0.30
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.03	< 0.005	—	2.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.01	< 0.005	—	75.7
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.01	< 0.005	—	75.7

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	457
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Discount Club	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.01	< 0.005	—	75.7
Gasoline/Service Station	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.5	75.5	0.01	< 0.005	—	75.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.06	2.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.07	1.91	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0
Total	4.81	4.65	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.06	2.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.74	2.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.38	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19	0.17	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92
Total	0.69	0.67	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92

4.3.2. Mitigated

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

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

Consumer Products	2.06	2.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.07	1.91	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0
Total	4.81	4.65	0.10	11.6	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.8	47.8	< 0.005	< 0.005	—	48.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	2.06	2.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.68	0.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.74	2.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.38	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.12	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19	0.17	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92

Total	0.69	0.67	0.01	1.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.90	3.90	< 0.005	< 0.005	—	3.92

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.41	0.06	—	101
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	< 0.005	—	1.75
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.45	0.06	—	102
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	23.4	0.00	23.4	2.41	0.06	—	101
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	< 0.005	—	1.75

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.8	0.00	23.8	2.45	0.06	—	102
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	3.88	0.00	3.88	0.40	0.01	—	16.7
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	< 0.005	—	0.29
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.94	0.00	3.94	0.41	0.01	—	17.0

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	20.3	0.00	20.3	2.09	0.05	—	87.4
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	< 0.005	—	1.75

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.13	0.05	—	89.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	20.3	0.00	20.3	2.09	0.05	—	87.4
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.41	0.00	0.41	0.04	< 0.005	—	1.75
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	20.7	0.00	20.7	2.13	0.05	—	89.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	3.37	0.00	3.37	0.35	0.01	—	14.5
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.07	0.00	0.07	0.01	< 0.005	—	0.29
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.43	0.00	3.43	0.35	0.01	—	14.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	—	1,338
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.65	0.00	4.65	0.46	0.00	—	16.3
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	—	1,338
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.65	0.00	4.65	0.46	0.00	—	16.3

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	63.3	0.00	63.3	6.33	0.00	—	222
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.77	0.00	0.77	0.08	0.00	—	2.69
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	—	1,338

Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.65	0.00	4.65	0.46	0.00	—	16.3
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	382	0.00	382	38.2	0.00	—	1,338
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	4.65	0.00	4.65	0.46	0.00	—	16.3
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	387	0.00	387	38.7	0.00	—	1,354
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	63.3	0.00	63.3	6.33	0.00	—	222
Gasoline/Service Station	—	—	—	—	—	—	—	—	—	—	—	0.77	0.00	0.77	0.08	0.00	—	2.69

Enclosed	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Discount Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421

Total	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55
Total	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55

4.8.2. Mitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Total	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421

Total	0.90	0.82	2.29	2.09	< 0.005	0.12	0.00	0.12	0.12	0.00	0.12	0.00	420	420	0.02	< 0.005	0.00	421
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55
Total	0.02	0.02	0.06	0.05	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	9.52	9.52	< 0.005	< 0.005	0.00	9.55

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	7.66	7.66	—	—	—	7.66
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	7.66	7.66	—	—	—	7.66

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

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29	—	—	—	3.29
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29	—	—	—	3.29

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	46.3	46.3	—	—	—	46.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	—	—	—	—	—	—	—	—	—	—	—	—	7.66	7.66	—	—	—	7.66
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	7.66	7.66	—	—	—	7.66

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

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	19.9	19.9	—	—	—	19.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grassland	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29	—	—	—	3.29
Urban	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	—	—	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29	—	—	—	3.29

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	255,397	84,130	28,436

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)
Discount Club	1,437,492	0.00	0.0330	0.0040	1,423,224
Gasoline/Service Station	48,732	0.00	0.0330	0.0040	0.00
Enclosed Parking with Elevator	369,143	0.00	0.0330	0.0040	0.00
Parking Lot	327,400	0.00	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)
Discount Club	1,437,492	0.00	0.0330	0.0040	1,423,224
Gasoline/Service Station	48,732	0.00	0.0330	0.0040	0.00
Enclosed Parking with Elevator	369,143	0.00	0.0330	0.0040	0.00
Parking Lot	327,400	0.00	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)
Discount Club	12,221,966	3,416,445
Gasoline/Service Station	212,510	0.00
Enclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)

Discount Club	10,608,667	1,022,923
Gasoline/Service Station	212,510	0.00
Enclosed Parking with Elevator	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Discount Club	710	—
Gasoline/Service Station	8.62	—
Enclosed Parking with Elevator	0.00	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Discount Club	710	—
Gasoline/Service Station	8.62	—
Enclosed Parking with Elevator	0.00	—
Parking Lot	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
Discount Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Discount Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Discount Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Discount Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

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
Emergency Generator	Diesel	2.00	1.00	50.0	250	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
Other	Inceptisols	15.0	7.31
Urban	Inceptisols	0.00	7.66

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
Other	Inceptisols	15.0	7.31
Urban	Inceptisols	0.00	7.66

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Grassland	15.0	7.31
Urban	0.00	7.66

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
Grassland	15.0	7.31

Urban	0.00	7.66

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)

8. User Changes to Default Data

Screen	Justification
Land Use	Project-specific information was provided by the Project Applicant.
Characteristics: Utility Information	CO2 emission factor estimated based upon Project-specific information.
Operations: Energy Use	Updated based on project-specific information, refer to report for further details.
Operations: Consumer Products	Updated based on county specific data, refer to report for further details.
Operations: Architectural Coatings	Updated the VOC emission factor based on EDCAPCD Rule 215 Limits.

APPENDIX B-2
EMISSION CALCULATION TABLES FOR PROJECT OPERATION

List of Tables

Table B-1. Operational Mobile Sources Activity Data
El Dorado Hills Costco Project
El Dorado Hills, California

Trip Type	Average One-Way Trip Length (mi)	Weekday Daily Trips (one-way trips/day)	Weekend Daily Trips (one-way trips/day)	Weekday Daily VMT (mi/day)	Weekend Daily VMT (mi/day)	Weekday Daily Idle Duration (min/day)	Weekend Daily Idle Duration (min/day)	Annual Average Trips (one-way trips/year)	Annual VMT (VMT/year)	Annual Idle Duration (min/year)	Annual TRU Operational Duration (min/year)
GDF Customer Vehicles (Passenger Vehicles) [1,2]	-	5,779	6,442	2,909	3,300	-	-	2,178,435	1,102,523	-	-
Warehouse and Employee Vehicles (Passenger Vehicles) [1,3]	-	8,950	9,907	18,214	20,146	-	-	3,366,592	6,849,614	-	-
GDF Customer Vehicles (Passenger Vehicles) Idling [4]	-	-	-	-	-	6,551	9,115	-	-	2,658,504	-
Fuel Delivery Trucks [5]	19	10	10	190	190	-	-	3,650	69,350	27,375	-
Warehouse and Tire Center Delivery Trucks [5]	90	26	26	2,340	2,340	-	-	8,238	741,420	61,785	-
TRUs for Warehouse Delivery Trucks [6]	-	-	-	-	-	-	-	-	-	-	413,269

Notes:

[1] Weekday passenger vehicle trip and VMT information were obtained from the El Dorado Costco CEQA Analysis, dated July 23, 2025. Weekend passenger trip and VMT information were provided by Kittelson and Associates.

[2] GDF customer vehicles represent vehicles used by the patrons of the fuel station.

[3] Warehouse and employee vehicles represent vehicles used by patrons of the warehouse and employee vehicles.

[4] Idle duration for passenger vehicles visiting the gas station was provided by Kittelson & Associates.

[5] Trip lengths and trip rates for delivery trucks are based on Project-specific information. The annual VMT is estimated as a product of trip length and annual average trips. The annual idle duration for delivery trucks is estimated as a product of idle duration per round trip and annual round trips. The idle duration per round trip is assumed to be 15 minutes (maximum 5 minutes at project site entry, maximum 5 minutes at the fuel tank and maximum 5 minutes at project site exit), consistent with the CARB Air Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Available at https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about. Accessed: March 2025.

[6] Annual TRU operational duration is estimated based on total operational time per TRU and the number of TRUs per year, as provided in the TRU Trip Information below.

[7] The on-site TRU operational time during truck idling is assumed to 15 minutes as described above in footnote 3. Note, the TRUs are not expected to idle for more than 5 minutes at the dock while unloading goods at the warehouse.

[8] The on-site warehouse delivery truck travel distance was estimated based on the proposed Project site layout. The off-site warehouse delivery truck travel distance was calculated by subtracting the on-site travel distance from the total trip length for the warehouse delivery truck.

[9] The on-site and off-site average truck travel speed are consistent with CARB's assumptions in Appendix I of the Proposed Amendments to the ATCM Measure for In-Use Diesel-Fueled TRU and TRU Generator Sets, and Facilities Where TRUs Operate. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/appi.pdf. Accessed: March 2025.

[10] The on-site and off-site TRU operational time during warehouse delivery truck travel was calculated by dividing the on-site and off-site truck travel distances by their corresponding average truck travel speeds, respectively.

[11] The total operational time per TRU includes the operational time during on-site and off-site truck travel and on-site truck idling.

[12] The number of TRUs per day is based on Project-specific information. The total number of TRU uses per year was estimated by multiplying the daily number of TRUs by 365 operational days per year.

TRU Trip Information:

On-Site Operational Time During Truck Idling [7]	15	minutes/round trip per TRU
On-Site Truck Travel Distance [8]	0.2	miles/round trip
On-Site Average Truck Travel Speed [9]	5	miles/hour
On-Site Operational Time During Truck Travel [10]	2.9	minutes/round trip per TRU
Off-Site Truck Travel Distance [8]	179.8	miles/round trip
Off-Site Average Truck Travel Speed [9]	30	miles/hour
Off-Site Operational Time During Truck Travel [10]	360	minutes/round trip per TRU
Total Operational Time [11]	377.4	minutes/TRU
Number of TRUs [12]	3	TRUs/day
Number of TRUs [12]	1,095	TRUs/year

Abbreviations:

ATCM - Airborne Toxic Control Measure
CARB - California Air Resources Board
CEQA - California Environmental Quality Act
GDF - gasoline dispensing facility
mi - mile
min - minute
TRU - transport refrigeration unit
VMT - vehicle miles traveled

Table B-2. Passenger Vehicle Fleet Mix for El Dorado County
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	CalEEMod Default Fleet Mix [1]	Passenger Vehicle Fleet Mix [2]
LDA	37.9%	43.7%
LDT1	5.2%	6.0%
LDT2	26.3%	30.4%
MDV	17.3%	19.9%
LHDT1	5.4%	-
LHDT2	1.3%	-
MHDT	1.6%	-
HHDT	0.4%	-
OBUS	0.1%	-
UBUS	0.0%	-
MCY	3.6%	-
SBUS	0.1%	-
MH	0.8%	-

Notes:

[1] CalEEMod default for El Dorado (MC) sub-area, calendar year 2027.

[2] Estimated using the CalEEMod default fleet mix for El Dorado County. EMFAC vehicle categories that represent passenger vehicles include LDA, LDT1, LDT2, and MDV.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
EMFAC - EMission FACtors model
HHDT - Heavy heavy-duty truck
LDA - light duty automobiles
LDT - light-duty trucks
LHDT - light heavy-duty trucks
MC - Mountain County
MCY - motorcycles
MDV - medium-duty vehicle
MH - motor homes
MHDT - medium heavy-duty trucks
OBUS - other buses
SBUS - school buses
UBUS - urban buses

Table B-3. Passenger Vehicle Fleet Mix for the Proposed Project by Vehicle Category and Fuel Type
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	EMFAC VMT Output [1] (miles/day)	Project-Specific Vehicle Fleet Mix for Passenger Vehicles Visiting the GDF [2]	Project-Specific Vehicle Fleet Mix for Warehouse and Employee Passenger Vehicles [3]
LDA	Gasoline	1,619,691	41.98%	38.43%
LDA	Plug-in Hybrid	66,445	1.72%	1.58%
LDA	Electricity	150,587	-	3.57%
LDA	Diesel	5,444	-	0.13%
LDT1	Gasoline	181,944	5.96%	5.93%
LDT1	Plug-in Hybrid	658	0.02%	0.02%
LDT1	Electricity	816	-	0.03%
LDT1	Diesel	16	-	0.00%
LDT2	Gasoline	1,158,122	30.00%	29.64%
LDT2	Plug-in Hybrid	14,398	0.37%	0.37%
LDT2	Electricity	9,343	-	0.24%
LDT2	Diesel	4,897	-	0.13%
MDV	Gasoline	662,071	19.68%	18.97%
MDV	Plug-in Hybrid	8,766	0.26%	0.25%
MDV	Electricity	9,787	-	0.28%
MDV	Diesel	15,203	-	0.44%

Notes:

[1] Default EMFAC2021 output for the El Dorado (MC) sub-area in calendar year 2027.

[2] The Project-specific vehicle fleet mix for passenger vehicles visiting the GDF represents vehicles used by patrons of the fuel station; they are conservatively assumed to be plug-in hybrids and gasoline-fueled vehicles only. The fleet mix is estimated by apportioning the passenger vehicle fleet mix for El Dorado County (**Table B-2**) into the project specific fuel types (gasoline and plug-in hybrid) within each passenger vehicle EMFAC vehicle class (LDA, LDT1, LDT2, and MDV) using the default EMFAC VMT output for those fuel types.

[3] The Project-specific vehicle fleet mix for warehouse and employee passenger vehicles represents the vehicles used by patrons and employees of the warehouse. The fleet mix is estimated by apportioning the passenger vehicle fleet mix for El Dorado County (**Table B-2**) within each passenger vehicle EMFAC vehicle class (LDA, LDT1, LDT2, and MDV) using the default EMFAC VMT output for the default fuel types (gasoline, plug-in hybrid, electricity, and diesel).

Abbreviations:

EMFAC - EMission FACtors model
GDF - gasoline dispensing facility
LDA - light duty automobiles
LDT - light-duty trucks
MC - Mountain County
MDV - medium-duty vehicle
VMT - vehicle miles traveled

Table B-4. Operational Mobile Source Greenhouse Gas Emission Factors for Passenger Vehicles Visiting the Gasoline Dispensing Facility - Running Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/mi)	CH_4 Emission Factor [2] (g/mi)	N_2O Emission Factor [2] (g/mi)
LDA	Gasoline	42.0%	266	0.0019	0.0042
LDA	Plug-in Hybrid	1.7%	135	4.5E-04	5.8E-04
LDT1	Gasoline	6.0%	329	0.0059	0.0090
LDT1	Plug-in Hybrid	0.0%	124	4.1E-04	5.3E-04
LDT2	Gasoline	30.0%	333	0.0025	0.0053
LDT2	Plug-in Hybrid	0.4%	131	4.3E-04	5.6E-04
MDV	Gasoline	19.7%	405	0.0032	0.0064
MDV	Plug-in Hybrid	0.3%	132	4.4E-04	5.6E-04
Weighted Average Emission Factor [3]			314	0.0025	0.0052

Notes:

[1] The Project-specific fleet mix for passenger vehicles visiting the GDF are obtained from **Table B-3**.

[2] Running exhaust emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for passenger vehicles visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g/mi - grams per mile
GDF - gasoline dispensing facility
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
N_2O - nitrous oxide

Table B-5. Operational Mobile Source Greenhouse Gas Emission Factors for Warehouse and Employee Passenger Vehicles - Running Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/mi)	CH_4 Emission Factor [2] (g/mi)	N_2O Emission Factor [2] (g/mi)
LDA	Gasoline	38.4%	266	0.0019	0.0042
LDA	Plug-in Hybrid	1.6%	135	0.0004	0.0006
LDA	Electricity	3.6%	0	0.0000	0.0000
LDA	Diesel	0.1%	233	0.0012	0.0367
LDT1	Gasoline	5.9%	329	0.0059	0.0090
LDT1	Plug-in Hybrid	0.0%	124	0.0004	0.0005
LDT1	Electricity	0.0%	0	0.0000	0.0000
LDT1	Diesel	0.0%	406	0.0121	0.0640
LDT2	Gasoline	29.6%	333	0.0025	0.0053
LDT2	Plug-in Hybrid	0.4%	131	0.0004	0.0006
LDT2	Electricity	0.2%	0	0.0000	0.0000
LDT2	Diesel	0.1%	303	0.0007	0.0478
MDV	Gasoline	19.0%	405	0.0032	0.0064
MDV	Plug-in Hybrid	0.3%	132	0.0004	0.0006
MDV	Electricity	0.3%	0	0.0000	0.0000
MDV	Diesel	0.4%	408	0.0006	0.0643
Weighted Average Emission Factor [3]			303	0.0024	0.0053

Notes:

[1] The Project-specific fleet mix for warehouse and employee passenger vehicles are obtained from **Table B-3**.

[2] Running exhaust emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for passenger vehicles visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g/mi - grams per mile
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
N_2O - nitrous oxide

Table B-6. Operational Mobile Source Greenhouse Gas Emission Factors for Delivery Trucks - Running Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/mi)	CH_4 Emission Factor [2] (g/mi)	N_2O Emission Factor [2] (g/mi)
HHDT	Diesel	100.0%	1,957	0.0014	0.31
Weighted Average Emission Factor [3]			1,957	0.0014	0.31

Notes:

[1] Delivery trucks are assumed to be diesel-fueled heavy heavy duty trucks.

[2] Running exhaust emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for delivery trucks visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g/mi - grams per mile
HHDT - Heavy Heavy-Duty Truck
MC - Mountain County
N_2O - nitrous oxide

Table B-7. Operational Mobile Source Greenhouse Gas Emission Factors for Passenger Vehicles Visiting the Gasoline Dispensing Facility - Starting Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/trip)	CH_4 Emission Factor [2] (g/trip)	N_2O Emission Factor [2] (g/trip)
LDA	Gasoline	42.0%	65	0.063	0.031
LDA	Plug-in Hybrid	1.7%	62	0.044	0.021
LDT1	Gasoline	6.0%	89	0.12	0.042
LDT1	Plug-in Hybrid	0.0%	66	0.044	0.021
LDT2	Gasoline	30.0%	84	0.081	0.037
LDT2	Plug-in Hybrid	0.4%	73	0.044	0.021
MDV	Gasoline	19.7%	104	0.10	0.041
MDV	Plug-in Hybrid	0.3%	90	0.043	0.021
Weighted Average Emission Factor [3]			80	0.079	0.035

Notes:

[1] The Project-specific fleet mix for passenger vehicles visiting the GDF are obtained from **Table B-3**.

[2] Starting exhaust emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for passenger vehicles visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g - gram
GDF - gasoline dispensing facility
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
N_2O - nitrous oxide

Table B-8. Operational Mobile Source Greenhouse Gas Emission Factors for Warehouse and Employee Passenger Vehicles - Starting Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/trip)	CH_4 Emission Factor [2] (g/trip)	N_2O Emission Factor [2] (g/trip)
LDA	Gasoline	38.4%	65	0.063	0.031
LDA	Plug-in Hybrid	1.6%	62	0.044	0.021
LDA	Electricity	3.6%	0	0.000	0.000
LDA	Diesel	0.1%	0	0.000	0.000
LDT1	Gasoline	5.9%	89	0.123	0.042
LDT1	Plug-in Hybrid	0.0%	66	0.044	0.021
LDT1	Electricity	0.0%	0	0.000	0.000
LDT1	Diesel	0.0%	0	0.000	0.000
LDT2	Gasoline	29.6%	84	0.081	0.037
LDT2	Plug-in Hybrid	0.4%	73	0.044	0.021
LDT2	Electricity	0.2%	0	0.000	0.000
LDT2	Diesel	0.1%	0	0.000	0.000
MDV	Gasoline	19.0%	104	0.102	0.041
MDV	Plug-in Hybrid	0.3%	90	0.043	0.021
MDV	Electricity	0.3%	0	0.000	0.000
MDV	Diesel	0.4%	0	0.000	0.000
Weighted Average Emission Factor [3]			77	0.076	0.034

Notes:

[1] The Project-specific fleet mix for warehouse and employee passenger vehicles are obtained from **Table B-3**.

[2] Starting exhaust emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for passenger vehicles visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g - gram
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
N_2O - nitrous oxide

Table B-9. Operational Mobile Source Greenhouse Gas Emission Factors for Passenger Vehicles Visiting the Gasoline Dispensing Facility - Idling
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (grams/idle-minute)	CH_4 Emission Factor [2] (grams/idle-minute)	N_2O Emission Factor [2] (grams/idle-minute)
LDA	Gasoline	42.0%	25	4.9E-04	0
LDA	Plug-in Hybrid	1.7%	15	1.6E-04	0
LDT1	Gasoline	6.0%	31	0.0014	0
LDT1	Plug-in Hybrid	0.0%	14	1.5E-04	0
LDT2	Gasoline	30.0%	32	6.4E-04	0
LDT2	Plug-in Hybrid	0.4%	15	1.5E-04	0
MDV	Gasoline	19.7%	39	8.3E-04	0
MDV	Plug-in Hybrid	0.3%	15	1.6E-04	0
Weighted Average Emission Factor [3]			30	6.5E-04	0

Notes:

[1] The Project-specific fleet mix for passenger vehicles visiting the GDF are obtained from **Table B-3**.

[2] Idling emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 project-level output for El Dorado (MC) sub-area calendar year 2027. For EMFAC Vehicle Classes LDA, LDT1, LDT2, and MDV, the idling emission rates were estimated by multiplying the speed correction factor of 2.5 mph to the running exhaust emission rate in grams per mile at 5 mph.

[3] Weighted average emission factors for passenger vehicles the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
GDF - gasoline dispensing facility
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
mph - miles per hour
N_2O - nitrous oxide

Table B-10. Operational Mobile Source Greenhouse Gas Emission Factors for Delivery Trucks - Idling
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (grams/idle-minute)	CH_4 Emission Factor [2] (grams/idle-minute)	N_2O Emission Factor [2] (grams/idle-minute)
HHDT	Diesel	100.0%	94	0.0018	0
Weighted Average Emission Factor [3]			94	0.0018	0

Notes:

[1] Delivery trucks are assumed to be diesel-fueled heavy heavy duty trucks.

[2] Idling emission factors for each EMFAC vehicle class/fuel combination were obtained from the default EMFAC2021 project-level output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for delivery trucks visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane

CO_2 - carbon dioxide

EMFAC - EMission FACtors model

HHDT - Heavy Heavy-Duty Truck

MC - Mountain County

N_2O - nitrous oxide

Table B-11. Operational GHG Emission Factors for Warehouse Delivery Truck Transport Refrigeration Units
El Dorado Hills Costco Project
El Dorado Hills, California

Transport Refrigeration Unit (TRU) Category	Fuel Type	Total Statewide Activity [1] (hr/year)	Fuel Consumption [1] (gal/hr)	CO_2 Emission Factor [1] (lbs/hr)	CH_4 Emission Factor [2] (lbs/hr)	N_2O Emission Factor [2] (lbs/hr)
Transport Refrigeration Unit - Instate Trailer	Diesel	3,284	0.71	16	6.40E-04	1.25E-04
Transport Refrigeration Unit - Out-Of-State Trailer	Diesel	1,895	0.68	15	6.14E-04	1.20E-04
Weighted Average Emission Factor [3]				16	6.30E-04	1.23E-04

Notes:

[1] Total statewide activity, fuel consumption, and exhaust CO_2 emission factors for TRUs were obtained from OFFROAD2021 emissions output for El Dorado (MC) sub-area calendar year 2027.

[2] CH_4 and N_2O, emission factors were estimated based on fuel consumption obtained from OFFROAD2021 and USEPA emission factors in grams per gallon for stationary combustion of Distillate Oil No. 2.

[3] The activity weighted average emission factors for TRUs servicing the proposed Project were calculated using the emission factors and total statewide activity for each individual TRU category.

[4] Obtained from USEPA Emission Factors for Greenhouse Gas Inventories. Available at: https://www.epa.gov/system/files/documents/2025-01/ghg-emission-factors-hub-2025.pdf. Accessed: June 2025.

USEPA GHG Emission Factors [4] for Stationary Combustion of Distillate Oil No. 2:

CH_4 Emission Factor	0.41	g/gal
N_2O Emission Factor	0.08	g/gal

Abbreviations:

CH_4 - methane
CO_2 - Carbon Dioxide equivalents
g - gram
gal - gallon
GHG - greenhouse gas
hr - hour
lb - pound
MC - Mountain County
N_2O - nitrous oxide
USEPA - United States Environmental Protection Agency

Table B-12. Greenhouse Gas Emission Estimates for Operational Mobile Sources
El Dorado Hills Costco Project
El Dorado Hills, California

Mobile Source Activity	Trip Length [1] (mi)	Annual Trips [1] (one-way trips/yr)	Annual VMT [1] (mi/yr)	Idle Duration [1] (min/yr)	Annual TRU Operational Duration [1] (min/yr)	CO_2 Emissions [2] (MT/yr)	CH_4 Emissions [2] (MT/yr)	N_2O Emissions [2] (MT/yr)	Total GHG Emissions [3] (MT CO_2e/yr)
GDF Customer Vehicles (Passenger Vehicles) [4]	-	2,178,435	1,102,523	-	-	521	0.17	0.08	550
Warehouse and Employee Vehicles (Passenger Vehicles) [4]	-	3,366,592	6,849,614	-	-	2,332	0.27	0.15	2,383
Passenger Vehicle Idling at GDF	-	-	-	2,658,504	-	80	0.0017	0	80
Fuel Delivery Trucks [5]	19	3,650	69,350	27,375	-	138	0.0001	0.021	145
Warehouse and Tire Center Delivery Trucks [5]	90	8,238	741,420	61,785	-	1,457	0.0011	0.23	1,525
TRUs for Warehouse Delivery Trucks [6]	-	-	-	-	413,269	49	0.0020	0.0004	49
					Total Emissions [7]	**4,576**	**0.45**	**0.48**	**4,731**

Notes:

[1] Data obtained from **Table B-1**.

[2] CO_2, CH_4, N_2O emissions for on-road vehicles include running exhaust, starting exhaust, and idling exhaust. These emissions were estimated using emission factors from **Tables B-4 through B-10** along with annual VMT, trips, and idle duration.

[3] Total GHG emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[4] Passenger vehicle trip emissions include travel (running exhaust) and starting exhaust emissions that are estimated using the number of one-way trips, and idling exhaust emissions that are estimated using the idle duration.

[5] Delivery truck trip emissions include travel (running exhaust) emssions that are estimated using the number of one-way trips, and idling exhaust emissions that are estimated using the idle duration. Note, there are no starting exhaust emissions for trucks as these are de minimis for diesel-fueled internal combustion engines.

[6] TRU emissions were estimated using emission factors from **Table B-11** and the annual TRU operational duration.

[7] Emissions totals may not add up due to rounding. Emissions shown as zero may be non-zero values; however, they are below a meaningful reporting level for this analysis.

Global Warming Potentials: [2]

CO_2	1
CH_4	25
N_2O	298

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalent
GDF - gasoline dispensing facility
GHG - greenhouse gas
mi - mile
min - minute
MT - metric ton
N_2O - nitrous oxide
TRU - transport refrigeration unit
VMT - vehicle miles traveled
yr - year

Table B-13. Average Fuel Economy for Electric Miles Traveled by Warehouse and Employee Passenger Vehicles
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel	Project Specific Fleet Mix [1]	Fuel Economy [2,3] (mi/kWh)
LDA	Plug-in Hybrid	1.58%	3.31
LDA	Electricity	3.57%	2.59
LDT1	Plug-in Hybrid	0.02%	3.31
LDT1	Electricity	0.03%	2.59
LDT2	Plug-in Hybrid	0.37%	3.31
LDT2	Electricity	0.24%	2.59
MDV	Plug-in Hybrid	0.25%	3.31
MDV	Electricity	0.28%	2.59
		Fleet Average Fuel Economy	**2.84**

Notes:

[1] Obtained from **Table B-3.**

[2] The average fuel efficiency for passenger vehicles operating in El Dorado (MC) sub-area in calendar year 2027 is obtained from EMFAC2021.

[3] The fleet average fuel efficiency for electric and plug-in hybrid passenger vehicles is estimated based on the Project-specific fleet mix and the fuel economy obtained from EMFAC2021 for each EMFAC vehicle class and fuel combination.

Abbreviations:

LDA - light duty automobiles
EMFAC - California Air Resources Board Emissions Factor Model
kWh - kilowatt-hour
LDT - light-duty trucks
MC - Mountain County
MDV - medium-duty vehicle
mi - mile

Table B-14. Greenhouse Gas Emission Factors for Gasoline-Fueled Passenger Vehicles Visiting the Project Site - Running Exhaust
El Dorado Hills Costco Project
El Dorado Hills, California

EMFAC Vehicle Class	Fuel Type	Project Specific Fleet Mix [1]	CO_2 Emission Factor [2] (g/mi)	CH_4 Emission Factor [2] (g/mi)	N_2O Emission Factor [2] (g/mi)
LDA	Gasoline	42.0%	266	0.0019	0.0042
LDA	Plug-in Hybrid	1.7%	294	0.0010	0.0013
LDT1	Gasoline	6.0%	329	0.0059	0.0090
LDT1	Plug-in Hybrid	0.0%	294	0.0010	0.0013
LDT2	Gasoline	30.0%	333	0.0025	0.0053
LDT2	Plug-in Hybrid	0.4%	294	0.0010	0.0013
MDV	Gasoline	19.7%	405	0.0032	0.0064
MDV	Plug-in Hybrid	0.3%	294	0.0010	0.0013
Weighted Average Emission Factor for Gasoline VMT [3]			318	0.0025	0.0052

Notes:

[1] The Project-specific fleet mix for passenger vehicles visiting the GDF are obtained from **Table B-3**.

[2] The running exhaust emission factors for each EMFAC vehicle class/fuel combination for gasoline VMT were obtained from the default EMFAC2021 output for El Dorado (MC) sub-area calendar year 2027.

[3] Weighted average emission factors for passenger vehicles visiting the Project site are calculated as the sumproduct of the Project-specific fleet mix and the emission factors for the individual vehicle class/fuel categories within that fleet mix.

Abbreviations:

CH_4 - methane
CO_2 - carbon dioxide
EMFAC - EMission FACtors model
g/mi - grams per mile
GDF - gasoline dispensing facility
LDA - Light-Duty Automobile
LDT - Light-Duty Truck
MC - Mountain County
MDV - Medium-Duty Vehicle
N_2O - nitrous oxide
VMT - vehicle miles traveled

APPENDIX C
PROJECT EVALUATION AGAINST RELEVANT PLANS

List of Tables

Table C-1. Project Evaluation Against CARB's 2022 Scoping Plan Update
El Dorado Hills Costco Project
El Dorado Hills, California

Priority Areas [1]	Priority GHG Reduction Strategies [1]	Does it Conflict?
Transportation Electrification	• Convert local government fleets to ZEVs and provide EV charging at public sites • Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)	**Does Not Conflict.** These strategies would be developed and implemented by local government fleets and the County rather than an individual project. However, the Proposed Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[2] by installing ten DC fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E.
VMT Reduction	• Reduce or eliminate minimum parking standards • Implement Complete Streets policies and investments, consistent with general plan circulation element requirements • Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc. • Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking • Implement parking pricing or transportation demand management pricing strategies • Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood) • Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements)	**Does Not Conflict.** These strategies would be developed and implemented by the County rather than an individual project. However, the Proposed Project includes several features and mitigation measures that align with this priority area as noted below: • The Proposed Project will implement **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements** which would reduce vehicle miles travelled by employees by developing and implementing the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. • The Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. Additionally the Project is located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit. • While the Project does generate an increase in VMT,[3] the VMT analysis does not take into account the Costco trips “replacing” existing trips currently going to other retailers. Furthermore, the Project is expected to serve the existing population of the area by providing more convenient access to Costco services. The Project will allow customers to have multiple needs served in one trip, including but not limited to: eye exams, purchase of household goods and groceries, furniture store, appliance store, liquor store, and refueling at a gasoline dispensing facility. The VMT modeling does not measure the benefit of one Costco trip replacing multiple trips, and given these factors, it is likely that Costco members make fewer total retail shopping trips in a month or a year when they have the option of shopping at Costco than they would make if they did not have a Costco nearby.
Building Decarbonization	• Adopt all-electric new construction reach codes for residential and commercial uses • Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers) • Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances • Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing) • Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings)	**Does Not Conflict.** These strategies would be developed and implemented by the County rather than an individual project. However, the Proposed Project will incorporate several sustainability and energy efficiency measures including green building practices as required by the 2025 California Green Building Standards Code.[2] Refer to **Section 1.2** of this report for a detailed listing of these measures. Notably, the proposed Project operations will be powered 100% renewable electrical power supplied by PG&E, as Costco has a Clean Energy Contract with PG&E. The use of renewable electricity would facilitate deployment of renewable energy production.

Notes:
[1] Priority areas and GHG reduction strategies obtained from 2022 CARB Scoping Plan Update, Appendix D, Local Actions. Available online at: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: September 2025.
[2] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: September 2025.
[3] Kittelson & Associates. 2025. El Dorado Costco CEQA Analysis. July 23.

Abbreviations:
CARB - California Air Resources Board
CEQA - California Environmental Quality Act
DC - direct current
EV - electric vehicle
GHG - greenhouse gas
kW - kilowatt
ZEV - zero emission vehicle

Table C-2. Project Evaluation Against 2020 SACOG MTP/SCS
El Dorado Hills Costco Project
El Dorado Hills, California

Priority Policy Areas [1]	Supporting Policies [1]	Does it Conflict?
Build vibrant places for today’s and tomorrow’s residents	**POLICY 1**: Provide incentives, information, tools, technical assistance, and encouragement to support implementation of the Sacramento region’s Sustainable Communities Strategy. **POLICY 2**: Pursue funding opportunities that support the infrastructure improvements needed to support new housing and employment opportunities in existing urban, suburban, and rural communities.	**Does Not Conflict.** These policies would be implemented by the County rather than an individual project. However, the Proposed Project would create new employment opportunities, and is located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. Additionally the Project is located adjacent to homes, therefore the Project would provide retail and jobs near a housing-rich area served by El Dorado Transit.
Foster the next generation of mobility solutions	**POLICY 3**: Implement pilot projects aimed at making microtransit and micromobility (such as bike and scooter share) work for urban, suburban, rural, and low-income areas of the region. **POLICY 4**: Pursue flexibility in state and federal funding sources to enable testing and implementation of innovative mobility solutions that are affordable, accessible, and reduce greenhouse gas emissions. **POLICY 5**: Support innovative education and transportation demand management programs covering all parts of the region, to offer a variety of alternatives to driving alone. **POLICY 6**: Pursue new funding and planning opportunities to support electric vehicle infrastructure and programs for both private vehicles and public transit fleets. **POLICY 7**: Support transit agencies and local governments looking to secure funds to improve the frequency, hours of service, and coverage of productive bus service (including bus rapid transit, express bus, and more frequent fixed-route service). **POLICY 8**: Support more seamless travel through better traveler information for trip planning, reliable service and coordination between operators for transit, shared mobility and other first/last mile connections.	**Does Not Conflict.** These policies would be implemented by the County rather than an individual project. However, the Proposed Project includes a number of features and mitigation measures that align with these policies as noted below: • The Proposed Project will implement **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements** which would reduce vehicle miles travelled by employees by developing and implementing the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. • The Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. Additionally the Project is located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit. • The Proposed Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[2] by installing ten DC fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E.
Modernize the way we pay for transportation infrastructure	**POLICY 9**: Pursue new and reformed transportation funding methods and sources to implement the MTP/SCS that are stable, predictable, flexible, and adequate to operate, maintain, and expand the transportation system. Mileage-based fees/PayGo should replace, not be on top of, existing state fuel taxes. **POLICY 10**: Find solutions and reliable funding sources to meet the maintenance needs of roads that support rural economies, natural resource-based industries, agriculture, farm-to-market routes, and freight corridors. **POLICY 11**: Initiate a leadership role in testing and piloting roadway pricing mechanisms, such as facility-based tolling and mileage-based fees, in partnership with the state, federal, and local agencies and private sector organizations. **POLICY 12**: Take steps to implement tolling or pricing of specific lanes on major facilities, such as freeways, to improve traffic management, reliability, and operations of those facilities and to help raise funding for the cost of building and maintaining large capital investments. **POLICY 13**: All new major expansion projects on the region’s freeways and expressways should be planned for eventual deployment of pricing options to both manage demand and provide a financing mechanism for capital costs. Any pricing strategy pursued should be sensitive to changes in roadway demand during different parts of the day (peak/off-peak) with the objective of managing demand and providing travel choice. **POLICY 14**: Revenues generated from facility-based pricing should be used to build and maintain a regional network of paid express lanes and, where surplus revenue is available, on strategic transit services (e.g., express buses) or other mobility solutions that can reduce vehicle miles traveled and provide multiple travel options along priced corridors. **POLICY 15**: New taxes and fees, including mileage based fees, intended to raise additional funding for transportation purposes should prioritize closing the gap for system maintenance and state-of-good repair needs before investing in system expansion. **POLICY 16**: When implementing pricing strategies, both paid express lanes and mileage-based fees/PayGo, the region should make every effort to avoid negatively impacting lower income and rural households. For regional implementation of PayGo, explore innovative options for setting fees, such as including off-setting incentives for non-vehicular travel, off-sets to fees for disadvantaged households, and keying fee rates to maintenance and fix-if-first goals.	**Does Not Conflict.** These policies would be implemented by the County rather than an individual project. The Proposed Project would not conflict with the County's ability to implement these strategies.

Table C-2. Project Evaluation Against 2020 SACOG MTP/SCS
El Dorado Hills Costco Project
El Dorado Hills, California

Priority Policy Areas [1]	Supporting Policies [1]	Does it Conflict?
Build and maintain a safe, resilient, and multimodal transportation system	**POLICY 17**: Reduce the growing system maintenance funding gap by prioritizing spending flexible revenues on state-of-good repair improvements before investing in system expansion. **POLICY 18**: System expansion investments that are not directly paid for by new development should be focused on fixing major bottlenecks that exist today, and/or incentivize development opportunities in infill areas. **POLICY 19**: Transit expansion, particularly light rail and other fixed infrastructure transit options, should be targeted at communities with supportive land use policies and development patterns that will generate transit ridership and improve the cost recovery rates for transit service. **POLICY 20**: Prioritize cost effective safety improvements that will help the region eliminate fatal transportation related accidents. **POLICY 21**: Transportation infrastructure investments should be planned and built in a way that makes the system more resilient to extreme weather events and natural disasters. **POLICY 22**: Invest in bicycle and pedestrian infrastructure to encourage healthy, active transportation trips and provide recreational opportunities for residents and visitors. **POLICY 23**: Prioritize and incentivize transportation investments that benefit environmental justice communities. **POLICY 24**: Invest in transportation improvements that improve access to major economic assets and job centers. **POLICY 25**: Prioritize investments in transportation improvements that reduce greenhouse gas emissions and vehicle miles traveled.	**Does Not Conflict.** These policies would be implemented by the County rather than an individual project. However, the Proposed Project includes a number of features and mitigation measures that align with these policies as noted below: • The Proposed Project will implement **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements** which would reduce vehicle miles traveled by employees by developing and implementing the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. Note, the pedestrian network improvements include (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood. • The Proposed Project will implement offsite transportation improvements in coordination with the County to address compliance with the El Dorado County Transportation and Circulation Element policies. This would include (1) the addition of a new signalized intersection on Silva Valley Parkway, shared with the South Site's main driveway, (2) the addition of a new signalized intersection with Silva Valley Parkway shared with the North Site, (3) installation of a partial traffic signal at the intersection of Silva Valley Parkway and Clarksville Crossing, (4) installation of 150-foot dual northbound left turn lanes at the proposed signalized intersection of Silva Valley Parkway and the project driveway, and (5) the addition of a northbound right turn lane, change in the right turn phase to be permissive and overlap, and increase of the westbound left turn storage length at the intersection of White Rock Road and Valley View Parkway-Vine Street. These improvements to the transportation infrastructure would help meet the existing and future needs of the Project. • The Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. Additionally the Project is located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit. • The Proposed Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[2] by installing ten DC fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E. This will reduce the greenhouse gas emissions from on-road vehicles travelling in the County.

Notes:
[1] Priority policy areas and supporting policies obtained from 2020 SACOG MTP/SCS. Available online at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: September 2025.
[2] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: September 2025.

Abbreviations:
DC - direct current
kW - kilowatt
MTP - Metropolitan Transportation Plan
SACOG - Sacramento Area Council of Governments
SCS - Sustainable Communities Strategy

Table C-3. Project Evaluation Against El Dorado County Regional Transportation Plan 2020-2040
El Dorado Hills Costco Project
El Dorado Hills, California

Goal [1]	Objective [1]	Does it Conflict?
Integrate local and regional land use, air quality, and transportation planning to create a transportation system which supports the needs of the system user, enhances the economy, preserves the environment, and protects the community character.	**Objective A**: Provide transportation planning support services to local jurisdictions regarding the transportation impacts of local land use decisions. **Objective B**: Support local, state, and regional jurisdictions to ensure the transportation infrastructure meets existing and future needs.	**Does Not Conflict.** Although this goal is not the responsibility of an individual commercial development project, the Proposed Project will implement several offsite transportation improvements in coordination with the County to address the existing and future needs of the region in the immediate vicinity of the Project site. These include (1) the addition of a new signalized intersection on Silva Valley Parkway, shared with the South Site's main driveway, (2) the addition of a new signalized intersection with Silva Valley Parkway shared with the North Site, (3) installation of a partial traffic signal at the intersection of Silva Valley Parkway and Clarksville Crossing, (4) installation of 150-foot dual northbound left turn lanes at the proposed signalized intersection of Silva Valley Parkway and the project driveway, and (5) the addition of a northbound right turn lane, change in the right turn phase to be permissive and overlap, and increase of the westbound left turn storage length at the intersection of White Rock Road and Valley View Parkway-Vine Street. Additionally, the Proposed Project would develop the following pedestrian network improvements as part of **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**: (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood.
Encourage sustainable transportation options, embrace new technologies and develop climate adaptation and resiliency strategies.	**Objective A**: Support transportation planning and programs which aid in achieving regional air quality goals and develop strategies to lessen the impacts of severe weather events and wildfire. **Objective B**: Support the necessary infrastructure and develop innovative programs to support multimodal, technology-based shared ride solutions.	**Does Not Conflict.** Although this goal is not the responsibility of an individual commercial development project, the Project would support multimodal transport by implementing **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**. These mitigation measures include the implementation of the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. Note, the pedestrian network improvements include (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood. Additionally, the Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. The Project is also located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit. Besides this, the Proposed Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[2] by installing ten DC fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E. This will reduce emissions from on-road vehicles travelling in the County and aid in achieving the regional air quality goals.
Optimize the existing local, interregional and regionally significant roadway system to support improved maintenance, increased throughput, improved safety and multi-modal mobility.	**Objective A**: Maintain the existing transportation system at a standard which furthers its life and viability and continues to support the region's current and future transportation needs. **Objective B**: Develop and retrofit transportation facilities and corridors to improve safety, enhance community character, and improve multi-modal mobility.	**Does Not Conflict.** Although this is a goal is not the responsibility of an individual commercial development project, the Proposed Project will implement several offsite transportation improvements in coordination with the County to support the existing and future transportation needs of the region in the immediate vicinity of the Project site. These include (1) the addition of a new signalized intersection on Silva Valley Parkway, shared with the South Site's main driveway, (2) the addition of a new signalized intersection with Silva Valley Parkway shared with the North Site, (3) installation of a partial traffic signal at the intersection of Silva Valley Parkway and Clarksville Crossing, (4) installation of 150-foot dual northbound left turn lanes at the proposed signalized intersection of Silva Valley Parkway and the project driveway, and (5) the addition of a northbound right turn lane, change in the right turn phase to be permissive and overlap, and increase of the westbound left turn storage length at the intersection of White Rock Road and Valley View Parkway-Vine Street. Additionally, the Project would support multimodal transport by implementing **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**. These mitigation measures include the implementation of the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. Note, the pedestrian network improvements include (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood.

Table C-3. Project Evaluation Against El Dorado County Regional Transportation Plan 2020-2040
El Dorado Hills Costco Project
El Dorado Hills, California

Goal [1]	Objective [1]	Does it Conflict?
Promote a convenient, desirable, and reliable regional and interregional public transit system for residents and visitors travelling within, to, and beyond El Dorado County.	**Objective A**: Focus transit service provision to the region's diverse characteristics. **Objective B**: Promote a transit system that is responsive to the needs of transit-dependent persons.	**Does Not Conflict.** Although this goal is not the responsibility of an individual commercial development project, the Project is an infill development located near an El Dorado Transit bus route, therefore placing jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the Project. The Project is also located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit.
Promote and preserve aviation facilities and services that complement the regional transportation system, support emergency response, and enhance economic activities.	**Objective A**: Promote the operation, preservation, and maintenance of a regional system of public use general aviation airports.	**Does Not Conflict.** While this goal is not the responsibility of an individual commercial development project, the Proposed Project would not conflict with the EDCTC's ability to meet this goal.
Promote a safe, convenient, and efficient active transportation system for all users.	**Objective A**: Plan and develop a continuous, safe, and easily accessible pedestrian and bikeway network throughout the region connecting urban, suburban, and rural communities. **Objective B**: Support local jurisdictions in providing an active transportation system that emphasizes the health, safety, and wellbeing of people as part of a multi-modal transportation system.	**Does Not Conflict.** Although this goal is not the responsibility of an individual commercial development project, the Proposed Project would support the development of an active transportation system in the vicinity of the Project site by implementing **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**. This mitigation measure includes the implementation of (1) on-site end-of-trip bicycle facilities, and (2) pedestrian network improvements. The pedestrian network improvements include (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood.
Develop and support an integrated transportation system that incorporates corridor-based solutions and public awareness programs which support alternative transportation modes and reduce the impacts of single-occupant vehicle travel.	**Objective A**: Support local jurisdictions and partners in developing corridor-based solutions to congestion reduction and support alternatives to the single occupant vehicle. **Objective B**: Support advancement of Transportation Demand Management in a manner which reflects the needs of the region and remains current with new technologies in transportation.	**Does Not Conflict.** Although this goal is not the responsibility of an individual commercial development project, the Proposed Project would support the development of alternative transportation models by implementing **Mitigation Measure 3.14-2a: Provide a Mandatory Commute Reduction Program for Costco Employees** and **Mitigation Measure 3.14-2b: Implement Pedestrian Network Improvements**. These mitigation measures includes the implementation of the following measures: (1) commute trip reduction marketing, (2) a ridesharing program for employees, (3) on-site end-of-trip bicycle facilities, and (4) pedestrian network improvements in the vicinity of the Project site. Note, the pedestrian network improvements include (1) constructing sidewalks along the project frontage on Clarksville Crossing and Silva Valley Parkway and (2) constructing sidewalks north of the project frontage on the east side of Silva Valley Parkway to connect to the existing sidewalk near Oak Meadow Elementary School and providing connectivity with the surrounding neighborhood. Additionally, the Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. The Project is also located adjacent to homes, thereby providing retail and jobs near a housing-rich area served by El Dorado Transit.
Secure maximum available funding and pursue new sources of funds for maintenance, expansion, and improvement of all modes of transportation facilities and services.	**Objective A**: Obtain funding for vital transportation needs through all sources. **Objective B**: Identify innovative and sustainable funding strategies for vital transportation needs where conventional funding sources are insufficient.	**Does Not Conflict.** While this goal is not the responsibility of an individual commercial development project, the Proposed Project would not conflict with the EDCTC's ability to meet this goal.

Notes:
[1] Priority policy areas and supporting policies obtained from El Dorado County Regional Transportation Plan 2020-2040. Available online at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: September 2025.
[2] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: September 2025.

Abbreviations:
DC - direct current
EDCTC - El Dorado County Transportation Commission
kW - kilowatt

North Site Remainder Area
Technical Report

Prepared for
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Sacramento, California

Prepared by
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Irvine, California

Project Number
1940110459

Date
October 2025

EDH COSTCO PROJECT
NORTH SITE REMAINDER AREA
TECHNICAL REPORT
EL DORADO HILLS, CALIFORNIA

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CONTENTS *(Continued)*

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APPENDICES

ACRONYMS AND ABBREVIATIONS

Acronym	**Definition**
AQ	air quality
CalEEMod	California Emissions Estimator Model®
CAP	criteria air pollutants
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
DPM	diesel particulate matter
EDCAQMD	El Dorado County Air Quality Management District
EDH	El Dorado Hills
EPA	Environmental Protection Agency
EV	electric vehicle
GHG	greenhouse gas
H_2S	hydrogen sulfide
HI	hazard index
hp	horsepower
lb	pound
MT	metric tonne
MTP/SCS	Metropolitan Transportation Plan & Sustainable Communities Strategy
MW	megawatts
NOA	naturally occurring asbestos
NO_X	nitrogen oxides
O_3	ozone
PCAPCD	Placer County Air Pollution Control District
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ROG	reactive organic gases
RTP	Regional Transportation Plan
SACOG	Sacramento Area Council of Governments
SO_2	sulfur dioxide
SO_X	sulfur oxides
TAC	toxic air contaminant
TDM	Transportation Demand Management
VMT	vehicle miles travelled
VOC	volatile organic compound

1. INTRODUCTION

Ramboll Americas Engineering Solutions, Inc. (Ramboll) was retained to prepare a Technical Report on the air quality (AQ), greenhouse gas (GHG), and energy impacts for potential future development in the North Site Remainder Area ("Remainder Area Development"), in addition to the AQ, GHG, and Energy technical reports for the proposed El Dorado Hills (EDH) Costco Project located north of the Silva Valley Parkway/US 50 interchange in the El Dorado Hills community area of the unincorporated El Dorado County in California. For simplicity, the North Site Remainder Area and the proposed EDH Costco Project are collectively referred to hereafter as the proposed Project.

This Technical Report analyzes the AQ, GHG, and energy impacts of the potential Remainder Area Development at a program/plan level. Specifically, it describes the maximum development assumptions for the Remainder Area Development and estimates criteria air pollutant emissions, GHG emissions, and energy use associated with the construction and operations of this development. Additionally, this report evaluates the potential aggregate AQ, GHG, and energy impacts of the proposed Project (both the North Site Remainder Area and the EDH Costco Project).

1.1 Existing Conditions

The Project site is currently vacant grassland with scattered oak trees and seasonal drainage features. There are no permanent structures on the site. The southern edge of the property directly abuts the US 50 right-of-way, while the western boundary is adjacent to Clarksville Crossing. An approximate 7.75-acre portion of the northern site is reserved for a planned future extension of Country Club Drive, which is not part of the proposed Project.

Surrounding land uses include:

- North: Single-family residential uses and Oak Meadow Elementary School
- East: Vacant land, Tong Road, and single-family residential uses
- South: U.S. Highway 50 and Tong Road
- West: Clarksville Crossing roadway, open space, and undeveloped land

1.2 Potential Development in the North Site Remainder Area

An approximately 13.79-acre out-parcel on the North Site would remain undeveloped at this time (North Site Remainder Area). The EDH Costco Project proposes no development for the North Site Remainder Area. However, future development of the North Site Remainder Area would be made more reasonably foreseeable by the proposed annexation of the entire North Site into the El Dorado Irrigation District and the El Dorado Hills Fire Department service areas. Since such annexations are assumed to facilitate possible future development of the North Site Remainder Area, even though there is not even a conceptual or contemplated plan for build out of that land, this analysis conservatively assumes that such land would be developed consistent with the General Plan and zoning designations and density. The assumed potential commercial development of the North Site Remainder Area is approximately 138,000 square feet and 316 employees. The future extension of Country Club Drive (County Capital Improvement Project No. 36105008), when constructed by the County, would occupy a portion of the North Site near its northern edge, though the future extension is an independent project proposed by, and to be undertaken by, the County and is not analyzed as a part of the proposed Project.

2. SIGNIFICANCE THRESHOLDS

The Remainder Area Development would be adjacent to the EDH Costco Project and is subject to the identical regulatory settings and significance thresholds previously described for the EDH Costco Project in the technical reports.[1,2,3] The analysis provided in this technical memorandum evaluates whether the Project would result in any potentially significant impacts regarding the following questions:

Threshold AQ-1. Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Threshold AQ-2. Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

Threshold AQ-3. Would the Project expose sensitive receptors to substantial pollutant concentrations?

Threshold AQ-4. Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Threshold GHG-1. Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold GHG-2. Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

Threshold ENE-1. Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

Threshold ENE-2. Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

2.1 Approach to Significance

As described in Section 3.2 of the EDH Costco Project Air Quality Technical Report, the El Dorado County Air Quality Management District (EDCAQMD) has established significance thresholds to assess the impacts of project-related construction and operational emissions, in its California Environmental Quality Act (CEQA) Guide. Table 3-1 in the EDH Costco Project Air Quality Technical Report shows the quantitative mass daily thresholds for construction and operation as adopted by the EDCAQMD reactive organic gases (ROG) and nitrogen oxides (NO_X) emissions. The analysis summarized in this report estimates program/plan level construction and operational mass emissions for the proposed Project and compares the emissions to these significance thresholds.

EDCAQMD has also established significance thresholds for other criteria air pollutants (CAPs) including carbon monoxide (CO), particulate matter less than 10 microns in diameter (PM_{10}), sulfur dioxide (SO_2), nitrogen dioxide, sulfates, lead, hydrogen sulfide (H_2S), and visibility-reducing particles. Project-related emissions of these pollutants are considered to

[1] Ramboll. 2025. EDH Costco Project Air Quality Technical Report.

[2] Ramboll. 2025. EDH Costco Project Greenhouse Gas Technical Report.

[3] Ramboll. 2025. EDH Costco Project Energy Technical Report.

have significant impacts if these emissions will cause or contribute to a violation of the applicable national or state ambient air quality standard. The EDCAQMD provides screening techniques to evaluate if a project's CAP emissions would have a less-than-significant impact in Chapters 4 and 6 of the EDCAQMD CEQA Guide.[4] This analysis in this report estimates the program/plan level construction and operational mass emissions of CO, PM_{10}, sulfur oxides (SO_X), and NO_X for the proposed Project and evaluates the significance of their impacts using these screening techniques established in the EDCAQMD CEQA Guide.[5]

The EDCAQMD has also established significance thresholds to assess health risk impacts of TACs from project-related emission sources on nearby sensitive receptors including residents and other human populations, which are applicable to the program-level impact analysis in this report.[6] These include a maximum incremental cancer risk of one-in-a-million (or ten-in-a-million if best available control technology for toxics (T-BACT) is applied), and incremental chronic and acute hazard indices (HIs) of 1. The analysis summarized in this report evaluates the human health risk impacts from on-site construction and operational emissions against these significance thresholds established by EDCAQMD.

This Technical Report also performs a qualitative assessment of odors from the proposed Project to evaluate if they would have the potential to generate odorous emissions that would meet the statutory definition for nuisance, in accordance with the EDCAQMD CEQA Guide.[7]

This report, relative to Threshold AQ-1, evaluates whether the proposed Project would conflict with applicable plans related to emissions, including the regional air quality attainment plans. This report, relative to Threshold AQ-2, quantifies the proposed Project's emissions during construction and operations and compares those results to the applicable EDCAQMD thresholds. Relative to Threshold AQ-3, this report includes a CO hotspots analysis and a semi-quantitative assessment of the potential health risk impacts to sensitive receptors. This report, relative to Threshold AQ-4, evaluates the potential for odor-generating activities from the proposed Project.

As discussed in Section 3.2 of the EDH Costco Greenhouse Gas Technical Report, El Dorado County provides some basic information on climate change including an overview of GHG regulations and local, state, and national efforts to address climate change; however, it has not established a quantitative or qualitative guidance to evaluate GHG emission impacts of development projects under CEQA.[8] Additionally, EDCAQMD has also not set quantitative GHG significance thresholds. In the absence of a quantitative GHG threshold from El Dorado County and EDCAQMD, this Technical Report assessed significance of GHG impacts for Threshold GHG-1 against the Placer County Air Pollution Control District (PCAPCD) GHG significance thresholds (Table 3-1 of the EDH Costco Greenhouse Gas Technical Report), in consultation with EDCAQMD and El Dorado County.

[4] EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] Ibid.

PCAPCD's GHG significance thresholds are reasonable to assess significance in the absence of a quantitative threshold from EDCAQMD because Placer County is similar to El Dorado County demographically, geographically, and meteorologically. Both Placer County and El Dorado County have similar land use patterns (i.e., they are both heavily made up of rural and suburban areas), with similar rates of population growth. Additionally, both counties have similar terrain and lie within the same air basin. Because of this, PCAPCD's quantitative GHG thresholds were used to assess significance against the Project relative to Threshold GHG-1.

Relative to Threshold GHG-2, this report evaluates whether the Project would conflict with the 2022 Scoping Plan Update,[9] Sacramento Area Council of Governments' (SACOG's) 2020 future Metropolitan Transportation Plan & Sustainable Communities Strategy (MTP/SCS),[10] and the El Dorado County Regional Transportation Plan (RTP) 2020-2040.[11]

This report evaluates the proposed Project's energy consumption against the six categories of potential energy-related environmental impacts from Appendix F of the CEQA Guidelines:

1. The Project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the Project including construction, operation, maintenance and/or removal. If appropriate the energy intensiveness of materials may be discussed.
2. The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the Project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the Project complies with existing energy standards.
5. The effects of the Project on energy resources.
6. The Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

This report, relative to Threshold ENE-1, assesses the proposed Project's electricity, natural gas, and fossil fuel consumption during construction and operation by way of the six questions above. This report, relative to Threshold ENE-2, evaluates whether the proposed Project would conflict with applicable plans related to renewable energy and energy efficiency.

[9] CARB. 2022. 2022 CARB Scoping Plan Update - Appendix D, Local Actions. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: October 2025.

[10] SACOG. 2020. 2020 SACOG MTP/SCS. Available at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: October 2025.

[11] El Dorado County Transportation Commission. 2020. El Dorado County Regional Transportation Plan 2020-2040. November 5. Available at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: October 2025.

3. EMISSIONS INVENTORIES AND ENERGY PROJECTIONS

This section provides a brief description of the methodology that Ramboll used to develop CAP, GHG, and energy inventories associated with the Remainder Area Development, which include one-time emissions from construction and long-term operational emissions. This section also presents the CAP, GHG, and energy inventories of the North Site Remainder Area and the proposed Project.

The analysis in this report utilized the California Emissions Estimator Model (CalEEMod) version 2022.1 methodology to quantify CAP and GHG emissions for the Remainder Area Development (**Appendix A**). This report presents assumptions only when they differ from the analysis for the EDH Costco Project, detailed in the EDH Costco Project's technical reports. Unless otherwise stated, CalEEMod default parameters were used to estimate the emission inventories.

As presented in **Section 1**, the Remainder Area Development would, at a maximum, develop 138,000 square feet of commercial/retail land uses, categorized as regional shopping center in CalEEMod. The remaining area of the parcel is conservatively assumed to be developed into asphalt-paved parking lots, totaling approximately 10.6 acres. The land use assumptions used to generate CalEEMod default construction and operational activities are included in **Appendix A**.

Construction of the North Site Remainder Area is assumed to start as early as May 2027, immediately after the EDH Costco Project construction concludes. Operation of the North Site Remainder Area is assumed to start as soon as the construction concludes.

3.1 Construction Emission Inventories and Energy Projection

Construction schedule, off-road equipment activities and on-road vehicle trip assumptions are provided in **Appendix B**. Because the material movement volumes required to construct in the Remainder Area are currently unknown, they are conservatively assumed to be the same as EDH Costco Project's Construction Scenario 2.

Criteria Air Pollutant Inventory

Average daily construction emissions for each quarter of the North Site Remainder Area construction are calculated based on CalEEMod outputs and are included in **Appendix C**.

Table 3-1 summarizes the average daily criteria pollutant emissions from construction of the North Site Remainder Area as compared to the applicable EDCAQMD thresholds. As shown in this table, the average daily unmitigated emissions of ROG and NO_X from the construction of the Remainder Area Development are below EDCAQMD's thresholds for construction. While EDCAQMD has not adopted mass daily numerical thresholds for other CAP emissions from construction, the EDCAQMD CEQA Guide[12] states that if ROG and NO_X exhaust emissions from construction are deemed not significant, then exhaust emissions of CO and PM_{10} may also be deemed not significant. Hence, air quality impacts of all CAPs (ROG, NO_X, CO, and

[12] EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

PM_{10}) from the exhaust of construction equipment and on-road vehicles associated with the construction of the North Site Remainder Area are less than significant.

The EDCAQMD CEQA Guide[13] states that fugitive dust PM_{10} emissions may be assumed to be not significant, if the project complies with EDCAQMD Rule 223 and Rule 223-1 for fugitive dust control by implementing control measures that will prevent visible dust beyond the project property lines. The proposed Project will comply with these fugitive dust control rules. Hence, the air quality impacts of fugitive dust emissions from the construction North Site Remainder Area are less than significant.

North Site Remainder Area construction activities are expected to generate negligible emissions of SO_2, sulfates, lead, and H_2S. Therefore, the air quality impacts of these emissions from the construction of the North Site Remainder Area are also less than significant.

Although EDCAQMD has established separate daily mass significance thresholds for short-term construction and long-term operational phases of development projects, this analysis conservatively compares the combined average daily emissions from the construction of the Remainder Area land and the EDH Costco Project operation to EDCAQMD's mass daily construction thresholds. As shown in **Table 3-2**, these combined unmitigated average daily emissions exceed EDCAQMD's construction threshold for ROG but remain below the threshold for NO_X.

Mitigated Criteria Air Pollutant Inventory

In order to ensure that the combined average daily ROG emissions from the construction of the Remainder Area Development and the EDH Costco Project operation are below the EDCAQMD's mass daily construction thresholds, the following mitigation measure will be implemented during the construction of the Remainder Area.

- **Mitigation Measure 3.2-2: Architectural Coating Volatile Organic Compound (VOC) Limits for Development of the North Site Remainder Area**

  Future building construction of the North Site Remainder Area shall only use architectural coatings with a VOC content not exceeding 100 grams per liter during construction for all interior and exterior spaces. This requirement shall be included in plans submitted for review by the County prior to the issuance of building permits.

Additionally, the following mitigation measures that will be implemented during the construction of the EDH Costco Project to address health risk impacts and asbestos dust will also apply to the construction of the Remainder Area Development:

- **Mitigation Measure 3.2-4a: Apply Tier-4 Emission Standards to Diesel-Powered Off-Road Equipment**

  Construction equipment greater than 50 horsepower (hp) used at the site shall meet Environmental Protection Agency (EPA) Tier 4 Final emission standards for PM_{10} and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), if available. If Tier 4 Final equipment is not available, all construction equipment larger than 50 hp used at the site shall meet EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to California Air Resources Board (CARB) Level 3 verifiable

[13] Ibid.

diesel emission control devices. This requirement shall apply to the construction of the Costco project and construction of the North Site Remainder Area.

- **Mitigation Measure 3.2-4b: Implement Asbestos Dust Mitigation Consistent with EDCAQMD Rule 223-1**

  An Asbestos Dust Mitigation Plan shall be prepared and submitted to the EDCAQMD and the County for review and approval by EDCAQMD for implementation during construction on the Costco project, future development of the North Site Remainder Area, and for off-site roadway improvements (if the presence of naturally occurring asbestos (NOA) is confirmed). The Asbestos Dust Mitigation Plan shall comply with the El Dorado County Code Chapter 8.44 (Asbestos and Dust Protection) and EDCAQMD Rule 223-2, which provides performance standards for ensuring that adverse impacts do not result from asbestos dust during construction.

Table 3-3 summarizes the average daily mitigated criteria pollutant emissions from construction of the North Site Remainder Area as compared to the applicable EDCAQMD thresholds. As shown in this table, the average daily unmitigated emissions of ROG and NO_X from the construction of the Remainder Area Development are below EDCAQMD's thresholds for construction. While EDCAQMD has not adopted mass daily numerical thresholds for other CAP emissions from construction, the EDCAQMD CEQA Guide[14] states that if ROG and NO_X exhaust emissions from construction are deemed not significant, then exhaust emissions of CO and PM_{10} may also be deemed not significant. Hence, air quality impacts of all CAPs (ROG, NO_X, CO, and PM_{10}) from the exhaust of construction equipment and on-road vehicles associated with the construction of the North Site Remainder Area are less than significant.

The EDCAQMD CEQA Guide[15] states that fugitive dust PM_{10} emissions may be assumed to be not significant, if the project complies with EDCAQMD Rule 223 and Rule 223-1 for fugitive dust control by implementing control measures that will prevent visible dust beyond the project property lines. The proposed Project will comply with these fugitive dust control rules. Hence, the air quality impacts of fugitive dust emissions from the construction North Site Remainder Area are less than significant.

North Site Remainder Area construction activities are expected to generate negligible emissions of SO_2, sulfates, lead, and H_2S. Therefore, the air quality impacts of these emissions from the construction of the North Site Remainder Area are also less than significant.

Although EDCAQMD has established separate daily mass significance thresholds for short-term construction and long-term operational phases of development projects, this analysis conservatively compares the combined average daily mitigated emissions from the construction of the Remainder Area land and the EDH Costco Project operation to EDCAQMD's mass daily construction thresholds. As shown in **Table 3-4,** with the inclusion of **Mitigation Measure 3.2-2**, which involves using low VOC paints during construction of the Remainder Area land uses, the combined average daily construction and operation emissions are below EDCAQMD's construction mass daily significance thresholds for both ROG and NO_X.

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[14] EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

[15] Ibid.

Greenhouse Gas Emissions Inventory

GHG emissions associated with the construction of the North Site Remainder Area are estimated using CalEEMod (**Appendix A**) and summarized in **Table 3-5**. As shown in **Table 3-5**, the annual GHG emissions associated with the construction of the North Site Remainder Area are less than the PCAPCD's GHG significance threshold for construction.[16]

Energy Projection

Energy consumption associated with the construction of the North Site Remainder Area are estimated using methodologies described in Section 4.1 of the EDH Costco Energy Technical Report and summarized in **Table 3-6**. Additional details on the fuel consumption of off-road construction equipment and on-road vehicle use during the North Site Remainder Area construction are provided in **Appendix D**.

3.2 Operational Emission Inventories and Energy Projection

A summary of the key assumptions associated with the operation of the North Site Remainder Area including mobile source activity, County-specific consumer product emission factors, and GHG emission factors for electricity are provided in **Appendix E**. These assumptions were incorporated into the CalEEMod model run in **Appendix A**.

Criteria Air Pollutant Inventory

Table 3-7 summarizes the maximum daily criteria air pollutant emissions associated with the operation of the North Site Remainder Area and the EDH Costco Project. As shown in this table, the maximum daily ROG and NO_X emissions associated with proposed Project (North Site Remainder Area and EDH Costco Project) operation are below EDCAQMD's mass daily significance thresholds for operation.

While EDCAQMD has not adopted mass daily numerical thresholds for other CAP emissions, it considers a project to have a significant impact on air quality if it will cause or contribute significantly to a violation of the National Ambient Air Quality Standards or California Ambient Air Quality Standards for CO, PM_{10}, SO_2, sulfates, lead, H_2S.

The EDCAQMD CEQA Guide[17] states that development projects, with land use types similar to the proposed Project, that are deemed less than significant for ROG and NO_X emissions based on land use size screening criteria, can also be considered less than significant for CO emissions. Using this screening approach, we can consider the air quality impacts of CO emissions from the proposed Project operation to be less than significant because the proposed Project's ROG and NO_X emissions are less than EDCAQMD's mass daily significance thresholds. Hence, the air quality impacts of operational CO emissions from the proposed Project are less than significant.

The EDCAQMD CEQA Guide[18] states that PM_{10} emissions from land development projects primarily associated with gasoline-powered vehicles may be assumed to be insignificant if the projects do not generate heavy-duty diesel vehicle trips in greater proportion than the

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[16] PCAPCD CEQA Handbook. 2017. Chapter 2 Thresholds of Significance. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

[17] EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

[18] Ibid.

general mix of such trips in public roadways. The proposed Project is not expected to generate heavy-duty diesel vehicle trips in greater proportion than the general mix of such trips in public roadways in the vicinity of the Project site and the air quality impacts of operational PM_{10} emissions from the proposed Project are less than significant.[19]

The EDCAQMD CEQA Guide[20] states that emissions associated with project operations that are less than 10 pounds per day of a pollutant may be presumed to have impacts that are not significant for that pollutant. Since SO_X emissions associated with the proposed Project operation are less than 10 pounds per day (**Table 3-7**), emissions of these pollutants are less than significant.

The proposed Project is a development project that is not a significant source of lead, sulfates, and H_2S. Hence, the emissions of these pollutants are less than significant.

Finally, according to the EDCAQMD CEQA Guide,[21] visibility impacts from development projects can be considered less than significant. Therefore, the proposed Project impacts on visibility are less then significant.

Greenhouse Gas Emissions Inventory

Table 3-8 summarizes the annual operational GHG emissions associated with the operation of the proposed Project (3,954 metric tonnes of carbon dioxide equivalent emissions per year (MT CO_2e per year) for the North Site Remainder Area and the EDH Costco Project). Because the exact energy efficiency and sustainability features of the North Site Remainder Area are not known at the time of preparation of this report, GHG reduction features of EDH Costco Project were not assumed for the Remainder Area Development.

PCAPCD CEQA Guidelines[22] have a three-tiered approach for assessing GHG emissions from land use projects. For projects with annual operational GHG emissions between 1,100 and 10,000 MT CO_2e per year, PCAPCD recommends applying its GHG Efficiency Matrix to determine significance.

As shown in **Table 3-8**, the proposed Project's estimated annual operational emissions fall within this range. Based on a total building square footage of 303,200 square feet (138,000 square feet for the North Site Remainder Area and 165,200 square feet for the EDH Costco Project), the calculated GHG efficiency for the proposed Project is 13.04 MT CO_2e per 1,000 square feet.[23] This is below the applicable conservative threshold of 26.5 MT CO_2e per 1,000 square feet for nonresidential projects located in urban areas, as defined by PCAPCD.

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19 As noted in Section 4.3.6 of the Air Quality Technical Report, the heavy-duty diesel vehicle trips generated by the EDH Costco Project are less than 0.25% of the total Project trips. Additionally, for purposes of this analysis the heavy-duty diesel vehicle trips generated by the Remainder Area as assumed to be similar to the general fleet mix in El Dorado County, based on the default fleet mix in CalEEMod. Hence, the fraction of heavy-duty diesel vehicle trips generated by the proposed Project (EDH Costco and North Site Remainder Area) will be lower than the approximately 6% of heavy-duty diesel trucks operating on the roads in El Dorado County.

20 Ibid.

21 Ibid.

22 PCAPCD CEQA Handbook. 2017. Chapter 2 Thresholds of Significance. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

23 Note, the Proposed Project GHG efficiency would be 16.94 MT CO_2e per 1,000 square feet if the analysis accounted for the greenhouse gas emission benefits associated with only the mandatory electric vehicle charging requirements (1,097 kW total power) in the 2025 California Green Building Standards Code. This value is also below the applicable conservative threshold of 26.5 MT CO_2e per 1,000 square feet for non-residential projects located in urban areas, as defined by PCAPCD.

Therefore, the proposed Project’s operational GHG emissions are considered to be less than significant.

Energy Projection

Energy consumption associated with the operation of the North Site Remainder Area are estimated using methodologies described in Section 4.2 of the EDH Costco Energy Technical Report and summarized in **Table 3-9**. Additional details on the operational electricity, natural gas, diesel and gasoline consumption are provided in **Appendix F**.

4. PROGRAM-LEVEL AIR QUALITY IMPACT ANALYSIS

This section assesses the significance of the proposed Project's air pollutant emissions for purposes of CEQA.

4.1 Threshold AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

According to the EDCAQMD CEQA Guide,[24] development projects in the Mountain Counties Air Basin portion of the County are considered consistent with the applicable air quality plan if:

1. The Project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), and projected emissions of ROG and NO_X from the Project are equal or less than the emissions anticipated for the site if developed under the existing land use designation;
2. The Project does not exceed the "project alone" significance criteria;
3. The lead agency for the Project requires the Project to implement any applicable emission reduction measures contained in and/or derived from the air quality attainment plan; and
4. The Project complies with all applicable district rules and regulations.

El Dorado County's General Plan designates the Project site as Commercial (C). Zoning includes Commercial Regional–Planned Development (CR-PD), with smaller areas of Commercial Limited and Transportation Corridor. Once operational, the proposed Project would be a regional commercial center, which is consistent with the existing designation of the County's General Plan and zoning. Hence, the anticipated growth associated with the Project is generally accounted for in the 2023 Ozone Plan[25] and would be accounted for in forthcoming attainment plans.

As described in **Section 3.1** and **Section 3.2**, the air quality impacts of CAPs associated with the proposed Project construction and operation are less than significant. Therefore, the proposed Project does not exceed the "project alone" significance criteria.

The applicable air quality attainment plans for the Project area are the Sacramento Regional 8-hour Ozone Attainment and Reasonable Further Progress Plan[26] and $PM_{2.5}$ Maintenance Plan and Redesignation Request.[27] As such the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under these plans (see **Section 4.2** below for further details). Hence, the

24 EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

25 Sacramento Region Air Quality Plans. Available at: https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans/nonattainment-area-plans/sacramento-region. Accessed: October 2025.

26 Ibid.

27 EDCAQMD, Placer County Air Pollution Control District, SMAQMD, and Yolo-Solano Air Quality Management District. $PM_{2.5}$ Implementation/Maintenance Plan and Redesignation Request for Sacramento $PM_{2.5}$ Nonattainment Area. October 24. Available at: http://www.airquality.org/ProgramCoordination/Documents/PM2.5%20Imp%20and%20Redesignation%202013.pdf. Accessed: October 2025.

proposed Project is not required to implement any additional mitigation measures contained in these plans.

As described in **Section 3.1** of this report and Sections 4.2.3 and 5.1.1 of the EDH Costco Project Air Quality Technical Report the proposed Project would comply with EDCAQMD Rules 223-1 and 223-2 for fugitive dust control[28] and asbestos hazard mitigation[29] during construction. The proposed Project is located in an area where NOA could be present.[30] Although the proposed Project's Geotechnical Study[31] concluded that the potential for NOA to be encountered at levels at or exceeding regulatory threshold level is considered low, the proposed Project would implement asbestos dust mitigation measures consistent with EDCAQMD Rule 223-1 through the implementation of **Mitigation Measure 3.2-4b**. The proposed Project would also comply with all other applicable EDCAQMD rules.

Therefore, the proposed Project would not conflict with or obstruct implementation of the applicable air quality plans for the Project region.

4.2 Threshold AQ-2: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

As discussed in the EDH Costco Project Air Quality Technical Report, the Project region is currently designated as non-attainment for the State 1-hour ozone (O_3) standard, the federal and the State 8-hour O_3 standard, the State PM_{10} standards, and the federal 24-hour $PM_{2.5}$ standard.

The two primary precursors for O_3 formation are ROG and NO_X. Table 4-12 of the EDH Costco Air Quality Report, and **Table 3-1** and **Table 3-7** of this report present the average daily and maximum daily ROG and NO_X emissions associated with the proposed Project construction and operation. Emissions of these O_3 precursors (ROG and NO_X) are below the EDCAQMD mass daily significance thresholds. Additionally, as described in Section 4.2.6 of the EDH Costco Air Quality Report and **Section 3** of this report, impacts of particulate matter emissions from the proposed Project construction and operation are less than significant. Hence, the proposed Project would not result in a cumulatively considerable net increase in any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

[28] EDCAQMD. 2005. Rule 223-1 Fugitive Dust – Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities and Carryout and Trackout Prevention. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID809.pdf. Accessed: October 2025.

[29] EDCAQMD. 2005. Rule 223-2 Fugitive Dust – Asbestos Hazard Mitigation. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID810.pdf. Accessed: October 2025.

[30] El Dorado County. Asbestos Review Areas, Western Slope, County of El Dorado, State of California. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/construction-dust-rules/asbestos-review-map-8-22-18.pdf. Accessed: October 2025.

[31] Kleinfelder, 2024. Geotechnical Study, Proposed Costco Fuel Facility, Silva Valley Parkway, El Dorado Hills, California, CW# 18-0487. December 2024.

4.3 Threshold AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

4.3.1 CO Hotspots

As discussed in Section 6.2 of the AQ Technical Report, according to the PCAPCD guidance, the CO emissions from a proposed Project's operations would be less than significant if CO emissions from vehicle operations are less than 550 pounds per day (lbs/day). As shown in **Table 3-7**, the CO emissions from mobile sources associated with the proposed Project are less than 550 lbs/day. Thus, the increase in CO emissions from the project-related increased traffic volumes at affected intersections and the on-site gasoline fueling station are less than significant and the proposed Project would not expose sensitive receptors to substantial concentrations of localized CO.

4.3.2 Health Risk Thresholds

As described in Section 7.3.1 of the EDH Costco Project Air Quality Technical Report, the cancer risk, non-cancer chronic and acute HIs at the maximally impacted residential and other sensitive receptors associated with the mitigated toxic air contaminant (TAC) emissions from the EDH Costco Project construction and operation are below EDCAQMD significance thresholds. Specifically, the maximum incremental cancer risk, non-cancer chronic and acute HIs for the Costco EDH Project are estimated to be 4.13 in a million, 0.02, and 0.50 respectively (Refer to Table 5-5 in the EDH Costco Project Air Quality Technical Report).

The primary sources of TAC emissions associated with the North Site Remainder Parcel are diesel particulate matter (DPM) emissions from construction equipment, construction trucks, and operational trucks. The construction equipment, construction truck activity, and operational truck activity associated with the development of the North Site Remainder Parcel are generally expected to be similar/lower than that of the EDH Costco Project as maximum square footage of the of commercial/retail land uses that would be developed on the North Site Remainder Area (138,000 square feet) is lower than the square footage of the warehouse that would be developed by the EDH Costco Project (165,000 square foot). Hence, the DPM emissions from the North Site Remainder Parcel and its associated cancer and chronic impacts will be similar or less than that associated with the EDH Costco Project. As a result, the maximum cancer risk and chronic HI associated with the proposed Project (North Site Remainder Area and EDH Costco Project) are expected to be less than 8.5 in a million and 0.05 respectively which are below EDCAQMD significance thresholds.

Additionally, since the North Site Remainder Parcel is expected to be developed as general retail land uses, we do not expect it to be a significant source of TACs that have acute impacts. Therefore, the acute HI for the proposed Project (North Site Remainder Area and EDH Costco Project) is expected to be similar to that of the EDH Costco Project which is below EDCAQMD significance threshold.

Therefore, the Project is not expected to expose sensitive receptors to substantial TAC concentrations.

4.4 Threshold AQ-4: Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

According to the EDCAQMD CEQA Guide,[32] common types of facilities known to produce odors include wastewater treatment plants, landfills and composting facilities, petroleum refineries, manufacturing plants such as asphalt batch plants and chemical/fiberglass manufacturing, painting and coating operations, food processing plants, rendering plants, and coffee roasters. The proposed Project would not include any of these land uses that have been identified by the EDCAQMD as being associated with odor generation and thus would not result in odors adversely affecting a substantial number of people. In addition, the proposed Project does not propose to locate any sensitive receptors near an existing source of objectional odors.

4.4.1 Construction Odors

Construction activities associated with potential odor include equipment exhaust (i.e., from off-road construction equipment), paving, and architectural coating. There are no unusual Project characteristics or construction processes that would require the use of equipment that would be more fuel intensive than is used for comparable construction activities, nor equipment that would not conform to current emission standards. It is expected that these impacts would be short-term in duration and typical of comparable activities, therefore the impacts would not adversely affect a substantial number of people and would be less than significant.

4.4.2 Operational Odors

As discussed above, the proposed Project is a commercial and retail development and does not propose any odor-generating facilities identified by the EDCAQMD. However, the proposed Project does include a gasoline fueling station. During the operation of the Project, VOCs released at the gasoline station due to refueling, spillage, and hose permeation would be controlled to minimize odors (i.e., nozzles equipped with Phase II Enhanced Vapor Recovery systems). Therefore, odor impact from the gasoline fueling station would not affect a substantial number of people and would be less than significant.

There may be some potential for other small-scale, localized odor issues to emerge around some of the proposed Project sources, such as solid waste collection, wastewater or stormwater collection/conveyance, or food preparation. However, these localized short-term odors would not affect a substantial number of people. Therefore, the proposed Project's operational odor impact is considered less than significant.

[32] EDCAQMD. 2002. Guide to Air Quality Assessment. February. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

5. PROGRAM-LEVEL GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

This section discusses the assessment of the proposed Project's GHG emissions against the CEQA significance thresholds outlined in **Section 2**.

5.1 Threshold GHG-1: Would the Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

As noted in **Section 2.1**, in the absence of a quantitative GHG threshold from El Dorado County and EDCAQMD, this Technical Report assesses significance of the proposed Project's GHG impacts for Threshold 1 against the PCAPCD's GHG significance thresholds.

Total GHG emissions for each year of the proposed Project construction are summarized in Table 4-13 of the EDH Costco Project Greenhouse Gas Technical Report and **Table 3-5** of this report. As shown in these tables, the annual GHG emissions associated with the construction of the proposed Project (1,708 MT CO_2e in 2026, 1,866 MT CO_2e in 2027, and 197 MT CO_2e in 2028) are less than the PCAPCD's bright-line GHG significance threshold of 10,000 MT CO_2e/year for construction.

The proposed Project's annual operational GHG emissions were estimated to be 3,954 MT CO_2e per year (**Table 3-8**). These emissions are between PCAPCD's de minimis GHG emissions level (1,100 MT CO_2e/yr) and bright-line GHG significance threshold (10,000 MT CO_2e/yr) for project operation. Therefore, to evaluate the GHG impacts we estimated the proposed Project's efficiency metric in accordance with the PCAPCD's Air Quality Handbook.[33] This calculated efficiency metric (13.04 MT CO_2e per 1,000 square feet) shown in **Table 3-8**, is less than the lower of the two applicable efficiency matrix thresholds in PCAPCD's Air Quality Handbook for the operational phase of land use projects:

1. 26.5 MT CO2e/1,000 square feet for a project in an urban land use setting; and
2. 27.3 MT CO2e/1,000 square feet for a project in rural land use setting.

Therefore, the GHG emissions associated with the construction and operation of the proposed Project would not have a significant impact on the environment.

5.2 Threshold GHG-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

As noted in **Section 2.1**, this Technical Report assesses the significance of the proposed Project's GHG impacts for Threshold 2 based on whether it would conflict with the 2022 Scoping Plan Update,[34] SACOG's 2020 MTP/SCS,[35] and El Dorado County RTP 2020-2040.[36]

[33] PCAPCD. 2017. 2017 CEQA Handbook Chapters. Available at: https://www.placerair.org/1801/CEQA-Handbook. Accessed: October 2025.

[34] CARB. 2022. 2022 CARB Scoping Plan Update - Appendix D, Local Actions. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-d-local-actions.pdf. Accessed: October 2025.

[35] SACOG. 2020. 2020 SACOG MTP/SCS. Available at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: October 2025.

[36] El Dorado County Transportation Commission. 2020. El Dorado County Regional Transportation Plan 2020-2040. November 5. Available at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: October 2025.

5.2.1 2022 Scoping Plan Update

The 2022 Scoping Plan Update has a table of priority GHG reduction strategies that can be utilized by local governments. The three main priority areas addressed in this table are "Transportation Electrification", "vehicle miles travelled (VMT) Reduction", and "Building Decarbonization".[37] These measures represent the core strategies that local jurisdictions in California can implement to reduce GHGs in alignment with State goals.

The proposed Project would not conflict with the implementation of the 2022 Scoping Plan Update and Statewide Emission Reduction Targets and includes the several features and mitigation measures that support the three main priority areas for GHG reduction as described below.

While project-level design features and details are not available for the potential developments in the North Site Remainder Area at the time of preparation of this program-level analysis, the North Site Remainder Area would introduce retail/commercial land uses that are consistent with the zoning designation in a highway hub. Hence, the proposed Project, i.e., the North Site Remainder Area and the Costco EDH Project, would create new employment opportunities. Additionally, the Project site is an infill development located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the proposed Project. Furthermore, the proposed Project is located adjacent to homes, therefore the proposed Project would provide retail and jobs near a housing-rich area served by El Dorado Transit. Lastly, the proposed Project will implement **Mitigation Measure 3.14-2c: Develop a Transportation Demand Management (TDM) Program and Implement VMT Reduction Measures for Subsequent Developments in the North Site Remainder Area** which requires each project applicant of future proposed projects located within the North Site Remainder Area to either demonstrate through a technical analysis that its project would not exceed County VMT thresholds or implement VMT-reducing infrastructure and/or strategies within the commercial facility to mitigate those impacts. If VMT thresholds are exceeded, the applicant shall prepare and submit a TDM Plan to the County for approval, which shall include a series of measures to reduce project-related VMT. Measures may include strategies such as ridesharing initiatives (e.g., carpooling), subsidizing employee use of public transit, and promoting bicycling, walking, and the use of public transit. As noted in Section 5.2.1 of the GHG Technical Report, the EDH Costco Project will meet the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code[38] by installing ten direct current fast chargers that provide a total power of 1,800 kW. Additionally, these chargers will be powered by 100% renewable electrical power supplied by Pacific Gas & Electric (PG&E), as Costco has a Clean Energy Contract with PG&E. Furthermore, the Remainder Area will be required to meet the Mandatory Electric Vehicle Charging Standards as defined in the California Green Building Standards Code.

[37] CARB. 2022. Final 2022 Scoping Plan Update and Appendices. December. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed: October 2025.

[38] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: October 2025.

Additionally, as noted in Section 5.2.1 of the GHG Technical Report, the EDH Costco Project will incorporate several sustainability and energy efficiency measures including green building practices as required by the 2025 California Green Building Standards Code.[39] Refer to Section 1.2 of the GHG Technical Report for a detailed listing of these measures. Notably, the EDH Costco Project operations will be powered 100% renewable electrical power supplied by PG&E, as Costco has a Clean Energy Contract with PG&E. Furthermore, the Remainder Area will be required to meet the California Green Building Standards Code, which includes a number of energy-saving requirements for new developments.

Based on the proposed Project elements described above, the Project would not interfere with the implementation of the 2022 Scoping Plan Update and would include elements that support the goals of the plan.

5.2.2 SACOG 2020 MTP/SCS

The proposed Project would not conflict with the State's GHG reduction goals and strategies as discussed in the SACOG's 2020 MTP/SCS,[40] which fall into four priority policy areas:

1. Build vibrant places for today's and tomorrow's residents;
2. Foster the next generation of mobility solutions;
3. Modernize the way we pay for transportation infrastructure; and
4. Build and maintain a safe, reliable, and multimodal transportation system.

The proposed Project would not conflict with the implementation of the SACOG's 2020 MTP/SCS and has several elements that are expected to support the main priority policy in SACOG's 2020 MTP/SCS. As noted in **Section 5.2.1**, the Project is an infill development that would create new employment opportunities and is located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), therefore placing jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the Project. Furthermore, the Project is located adjacent to homes, therefore the Project would provide retail and jobs near a housing-rich area served by El Dorado Transit.

Moreover, as noted in **Section 5.2.1**, the proposed Project will implement **Mitigation Measure 3.14-2c: Develop a TDM Program and Implement VMT Reduction Measures for Subsequent Developments in the North Site Remainder Area** which requires each project applicant of future proposed projects located within the North Site Remainder Area to either demonstrate through a technical analysis that its project would not exceed County VMT thresholds or implement VMT-reducing infrastructure and/or strategies within the commercial facility to mitigate those impacts. If VMT thresholds are exceeded, the applicant shall prepare and submit a TDM Plan to the County for approval, which shall include a series of measures to reduce project-related VMT. Measures may include strategies such as ridesharing initiatives (e.g., carpooling), subsidizing employee use of public transit, and promoting bicycling, walking, and the use of public transit.

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[39] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: October 2025.

[40] SACOG. 2020. Metropolitan Transportation Plan/Sustainable Communities Strategy. Available at: https://www.sacog.org/home/showpublisheddocument/76/638212804736270000. Accessed: October 2025.

Additionally, as noted in Section 5.2.2 of the GHG Technical Report, the EDH Costco Project would implement pedestrian network improvements as part of **Mitigation Measure 3.14-2b**, and would implement several off-site transportation improvements in coordination with the County to address the existing and future needs of the region in the immediate vicinity of the Project site.

Based on the proposed Project elements described above, the Project would not interfere with the implementation of the SACOG's 2020 MTP/SCS and would include elements that support the goals of the plan.

5.2.3 El Dorado County RTP 2020-2040

The proposed Project would not conflict with the El Dorado County 2020-2040 RTP,[41] which includes the following main goals: to improve highways, streets, and regional/inter-regional roadways, public transit, aviation, freight movement, non-motorized transportation, transportation systems management, integrated land use, air quality, and transportation planning, and funding.

The Project supports the objectives of the El Dorado County Regional Transportation Plan by providing sidewalks, bike lanes, and pedestrian connections. As noted in **Section 5.2.1**, the Project is an infill development that would create new employment opportunities and is located near an El Dorado Transit bus route (50 Express) and bus stop (El Dorado Transit Park & Ride), thereby creating jobs that are accessible via public transit. The El Dorado bus route connects to the larger Sacramento Metropolitan transit network and encourages use of local transit and rail to commute to the Project. Furthermore, the Project is located adjacent to homes, therefore the Project would provide retail and jobs near a housing-rich area served by El Dorado Transit.

Additionally, as noted in **Section 5.2.1**, the proposed Project will implement **Mitigation Measure 3.14-2c: Develop a TDM Program and Implement VMT Reduction Measures for Subsequent Developments in the North Site Remainder Area** which requires each project applicant of future proposed projects located within the North Site Remainder Area to either demonstrate through a technical analysis that its project would not exceed County VMT thresholds or implement VMT-reducing infrastructure and/or strategies within the commercial facility to mitigate those impacts. If VMT thresholds are exceeded, the applicant shall prepare and submit a TDM Plan to the County for approval, which shall include a series of measures to reduce project-related VMT. Measures may include strategies such as ridesharing initiatives (e.g., carpooling), subsidizing employee use of public transit, and promoting bicycling, walking, and the use of public transit.

Further, as described in Section 5.2.2 of the GHG Technical Report, the Project would include pedestrian network improvements as part of **Mitigation Measure 3.14-2b**, and would implement several off-site transportation improvements in coordination with the County to address the existing and future needs of the region in the immediate vicinity of the Project site.

Based on the proposed Project elements described above, the proposed Project would not interfere with the implementation of the El Dorado County 2020-2040 RTP and would include elements that support the goals of the plan.

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[41] El Dorado County Transportation Commission. 2020. El Dorado County Regional Transportation Plan 2020-2040. November 5. Available at: https://www.edctc.org/files/2859e4e3f/RTP+2040.pdf. Accessed: October 2025.

5.3 Summary

As discussed in **Section 5.1**, the proposed Project is expected to result in GHG emissions that are below PCAPCD GHG thresholds for operation and construction. Additionally, as described in **Section 5.2**, the proposed Project would not conflict with the 2022 Scoping Plan Update, SACOG's 2020 MTP/SCS, or the El Dorado County RTP 2020-2040. Therefore, the proposed Project's GHG emissions will be less than significant in the context of Threshold 1 and Threshold 2. Based on the analysis above, the proposed Project's GHG emissions are not cumulatively considerable, and the proposed Project is less than significant for cumulative GHG impacts.

6. PROGRAM-LEVEL ENERGY IMPACT ANALYSIS

This section discusses the assessment of the Project's energy demand against the CEQA significance thresholds outlined in **Section 2**.

6.1 Threshold ENE-1: Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?

6.1.1 Energy Requirements and Energy Use Efficiencies

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

> *The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate the energy intensiveness of materials may be discussed.*

Construction of the proposed Project (North Site Remainder Area and the EDH Costco Project) would result in one-time energy consumption in the form of gasoline and diesel, shown in **Table 3-6**. There are no unusual characteristics that would require the use of equipment that would be more energy intensive than is used for comparable activities, or equipment that would not conform to the current emissions standards (and related fuel efficiencies).

The operational energy use of the proposed Project is summarized in **Table 3-7**. As expected, the program-level energy use would be greater than the energy use from the EDH Costco Project. However, neither the EDH Costco Project nor the Remainder Area Development would have unusual project characteristics that would require electricity, gasoline, natural gas, and diesel consumption that would be more energy intensive than is used for comparable activities, or equipment that would not conform to current emissions standards (and related fuel efficiencies). For example, CARB has adopted an approach to passenger vehicles that combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of standards. The approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emissions vehicles in California. As such, operation of the proposed Project is expected to use decreasing amounts of fuel over time, due to advances in fuel economy.

6.1.2 Local and Regional Energy Supplies

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

> *The effects of the project on local and regional energy supplies and on requirements for additional capacity.*

The off-road construction equipment used during Project construction are primarily diesel-fueled. (see **Table D-1** for additional details on construction of the North Site Remainder Area and Table 4-2 of the EDH Costco Project Energy Technical Report for construction of the EDH Costco Project). Additionally, the fleet mix for construction mobile sources is expected to be gasoline-powered and diesel-powered, based on the CalEEMod default fleet mix for worker, vendor, and hauling vehicles (see **Table D-2** for additional details on the construction of the North Site Remainder Area and Table 4-4 of the EDH Costco Project Energy Technical Report for construction of the EDH Costco Project). Hence, the proposed Project is not expected to use any natural gas during construction.

As shown in **Table 3-6**, relative to annual countywide fuel usage projections, the proposed Project construction would use up to 0.02% of gasoline, 1.23% of diesel, and 0.000004% of electricity in the year when the most construction would occur (2027). Relative to annual statewide fuel usage projections, the proposed Project construction would use up to 0.00010% of gasoline, 0.00405% of diesel, and 0.00000002% of electricity in the year when the most construction would occur (2027). Because construction of the proposed Project is expected to occur in three years, fuel use during construction would also be temporary and negligible.

Table 3-9 summarizes the proposed Project's operational energy use compared to countywide and statewide fuel usage projections. The estimated electricity usage for the proposed Project operations are anticipated to be approximately 0.57% of the projected countywide demand in 2028, and 0.00272% of the statewide energy demand. The natural gas usage of the proposed Project operations are estimated to be 0.08% of the total countywide natural gas consumption and 0.00024% of the total statewide natural gas consumption. The proposed Project's anticipated gasoline usage is anticipated to be 0.68% of the countywide consumption and 0.00323% of the statewide consumption. As far as the proposed Project's diesel consumption goes, it is estimated to be 1.39% of the projected countywide consumption and 0.0045% of the statewide consumption. Based on these relative percentages, the proposed Project's operational energy usage would not have a substantial impact on the local or regional energy supplies or capacity.

6.1.3 Peak and Base Period Demands

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

> *The effects of the project on peak and base period demands for electricity and other forms of energy.*

The proposed Project construction would only include minor pieces of electric-powered equipment and hence would not impact the peak and base period demands for electricity.

The proposed Project operation will not have a substantial impact on the peak and base period demands for electricity or other forms of energy. Further details and reasoning on the peak demand are described below.

In 2023, California's peak grid demand was 44,534 megawatts (MW).[42] PG&E recorded a peak demand of 19,995 MW in 2023.[43] In comparison, the Project's maximum demand is

[42] California ISO. California ISO Peak Load History 1998 through 2024. Available at: https://www.caiso.com/documents/californiaisopeakloadhistory.pdf. Accessed: October 2025.

[43] California Energy Commission. 2023. Electricity and Gas Demand Forecast. Available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=253660&DocumentContentId=88907. Accessed: October 2025.

expected to be approximately 1.9 MW in 2028,[44] Therefore, the proposed Project's operations will have a relatively negligible effect on statewide and PG&E peak demands.

6.1.4 Existing Energy Standards

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

The degree to which the project complies with existing energy standards.

The proposed Project construction requires use of on-road trucks for soil hauling and deliveries, and off-road equipment such as excavators, tractors/loaders/backhoes, forklifts, and graders. The construction activities would comply with the five-minute idling limit in the Commercial Motor Vehicle Idling Regulation[45] and the Off-Road Regulation.[46] Additionally, on-road trucks used during Project construction would be compliant with the requirements of the Tractor-Trailer Greenhouse Gas Regulation.[47]

The proposed Project's anticipated operational energy use is summarized in **Table 3-9**. There are no unusual project characteristics that would require the use of gasoline, diesel, natural gas, or electricity that would be more energy intensive than is used for comparable activities, equipment, or vehicles that would not conform to current emissions standards (and related fuel efficiencies). Additionally, as described in Section 5.1.4.2 of the EDH Costco Project Energy Technical Report, the proposed Project would meet or exceed the Title 24 energy efficiency standards in effect at the time of building permit application. Any passenger vehicles and trucks trips generated by the proposed Project would comply with existing and new state-wide vehicle efficiency regulations discussed further in **Section 6.1.6**. Furthermore, the proposed delivery trucks accessing the site would comply with the State's Commercial Motor Vehicle Idling Regulation, similar to the construction vehicles discussed above.

Therefore, the proposed Project will comply with all applicable energy standards and its energy impacts are less than significant.

6.1.5 Energy Resources

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

The effects of the project on energy resources.

As discussed in **Sections 6.1.2** and **6.1.3**, the proposed Project's use of energy will not have a substantial effect on statewide or regional energy resources. Hence, the proposed Project will not significantly impact energy resources, and its energy impacts are less than significant.

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[44] This is a conservative estimate since it was derived by dividing the total electricity energy required for the proposed Project operation by the annual operating hours for the proposed Costco warehouse, though some sources of electricity would operate 24 hours per day for every day of the year.

[45] 13 CCR 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Available at: https://www.law.cornell.edu/regulations/california/13-CCR-2485. Accessed: October 2025.

[46] CARB. Frequently Asked Questions: Regulation for In-Use Off-Road Diesel-Fueled Fleets. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/msprog/ordiesel/faq/idlepolicyfaq.pdf. Accessed: October 2025.

[47] CARB. Tractor-Trailer Greenhouse Gas Regulation. Available here: https://ww2.arb.ca.gov/our work/programs/ttghg-regulation/regulatory-and-guidance-documents. Accessed: October 2025.

6.1.6 Transportation Energy Use

This section addresses the following category of environmental impact described in Appendix F of the CEQA Guidelines:

> *The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.*

Conventional gasoline, diesel, and natural gas vehicles consume gasoline, diesel, or natural gas, whereas electric vehicles (EVs) consume electricity that can be sourced by fossil fuels or renewables. EVs, including battery-electric vehicles and plug-in hybrid electric vehicles, comprise a growing fraction of the passenger vehicles on the roads in California. EV adoption is expected to increase over the upcoming decades due in part to improvements in battery technology and public initiatives and goals. This increase in EV adoption will decrease the fuel requirements due to transportation. New statewide regulations have been instated which will reduce emissions and fuel requirements from cars and trucks. Gasoline, diesel, and natural gas usage for the mobile sources associated with the proposed Project operation are expected to decrease over time as fleets become more fuel-efficient and switch to more electric-powered vehicles. Overall, the proposed Project would not result in wasteful, inefficient, or unnecessary consumption of transportation energy.

6.1.7 Summary

Based on the above analysis of each of the environmental impact factors identified in CEQA Guidelines Appendix F, the potential for the proposed Project to result in wasteful, inefficient, or unnecessary consumption of fuel or energy, and conversely to fail to incorporate energy efficiency measures into equipment use, transportation or other project features is less than significant.

6.2 Threshold ENE-2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed Project would comply with any applicable local and state plans, regulations, and policies for renewable energy or energy efficiency to the extent required by law. However, because project-level design features and details are not available for the potential developments in the North Site Remainder Area at the time of preparation of this program-level analysis, specific energy efficiency features for the Remainder Area Development will be described in any future applications filed with the County and the associated project-level review of potential environmental impacts under CEQA.

Furthermore, as show in Appendix A of the EDH Costco Project Energy Technical Report, the EDH Costco Project will commit to specific energy efficiency and renewable energy features, including but not limited to, meeting the Voluntary Tier 1 Electric Vehicle Charging Standards as defined in the 2025 California Green Building Standards Code,[48] installation of efficient irrigation systems and high-efficiency restroom fixtures, use of LED lamps, and use of building surface materials with greater solar reflectivity. Therefore, considered as a whole, the proposed Project would not conflict with or obstruct a state or local Plan for renewable energy or energy efficiency.

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[48] 2025 California Green Building Standards Code, Title 24, Part 11. Available online at: https://codes.iccsafe.org/content/CAGBC2025P1. Accessed: October 2025.

TABLES

Table 3-1. Unmitigated Average Daily CAP Emissions for Construction of North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

North Site Remainder Area Construction Time Period	ROG Emissions [1] (lbs/day)	NO_x Emissions [1] (lbs/day)	CO Emissions [1] (lbs/day)	SO_X Emissions [1,2] (lbs/day)	PM_{10} Emissions [1] (lbs/day)	$PM_{2.5}$ Emissions [1] (lbs/day)
First Quarter	2.4	45	24	0.24	13	3.4
Second Quarter	1.2	11	15	0.028	2.1	0.58
Third Quarter	1.2	10	15	0.028	2.1	0.56
Fourth Quarter	21	7.6	12	0.020	1.5	0.40
EDCAQMD Mass Daily Significance Thresholds [3]	**82**	**82**	**-**	**-**	**-**	**-**
Do Emissions Exceed Threshold for any quarter of Construction?	NO	NO	**-**	**-**	**-**	**-**

Notes:

[1] Obtained from **Table C-1**. Average daily emissions per quarter calculated as the total construction emissions, which include construction of the regional shopping center and parking lot, divided by the number of construction days in each quarter. Project construction emissions assume watering control consistent with EDCAQMD Rule 223-1.

[2] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[3] Obtained from EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

Abbreviations:

CAP - Criteria Air Pollutant
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table 3-2. Unmitigated Combined Average Daily CAP Emissions for Construction of North Site Remainder Area and Operation of Costco EDH Project
El Dorado Hills Costco Project
El Dorado Hills, California

North Site Remainder Area Construction Time Period	ROG Emissions [1] (lbs/day)	NO_x Emissions [1] (lbs/day)	CO Emissions [1] (lbs/day)	SO_X Emissions [1,2] (lbs/day)	PM_{10} Emissions [1] (lbs/day)	$PM_{2.5}$ Emissions [1] (lbs/day)
First Quarter	68.9	79.3	205.9	0.5	49.3	10.4
Second Quarter	67.7	44.8	196.8	0.3	38.8	7.5
Third Quarter	67.7	44.5	196.5	0.3	38.8	7.5
Fourth Quarter	87.3	41.8	193.2	0.3	38.1	7.4
EDCAQMD Mass Daily Significance Thresholds [3]	**82**	**82**	**-**	**-**	**-**	**-**
Do Emissions Exceed Threshold for any quarter of Construction?	YES	NO	-	-	-	-

Notes:

[1] Estimated as a sum of the average daily construction emissions for the North Site Remainder Area in **Table 3-1** and the maximum daily operational emissions for the Costco EDH Project in Table 4-16 of the EDH Costco Project Air Quality Technical Report.

[2] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[3] Obtained from EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

Abbreviations:

CAP - Criteria Air Pollutant
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
EDH - El Dorado Hills
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table 3-3. Mitigated Average Daily CAP Emissions for Construction of North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

North Site Remainder Area Construction Time Period	ROG Emissions [1] (lbs/day)	NO_x Emissions [1] (lbs/day)	CO Emissions [1] (lbs/day)	SO_X Emissions [1,2] (lbs/day)	PM_{10} Emissions [1] (lbs/day)	$PM_{2.5}$ Emissions [1] (lbs/day)
First Quarter	1.4	48	28	0.24	12	3.0
Second Quarter	0.81	13	17	0.028	1.9	0.38
Third Quarter	0.79	13	17	0.028	1.9	0.38
Fourth Quarter	14	10	13	0.020	1.3	0.27
EDCAQMD Mass Daily Significance Thresholds [3]	**82**	**82**	**-**	**-**	**-**	**-**
Do Emissions Exceed Threshold for any quarter of Construction?	NO	NO	-	-	-	-

Notes:

[1] Obtained from **Table C-2**. Average daily emissions per quarter calculated as the total construction emissions, which include construction of the regional shopping center and parking lot, divided by the number of construction days in each quarter. Project construction emissions assume watering control consistent with EDCAQMD Rule 223-1.

[2] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[3] Obtained from EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

Abbreviations:

CAP - Criteria Air Pollutant
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table 3-4. Mitigated Combined Average Daily CAP Emissions for Construction of North Site Remainder Area and Operation of Costco EDH Project
El Dorado Hills Costco Project
El Dorado Hills, California

North Site Remainder Area Construction Time Period	ROG Emissions [1] (lbs/day)	NO_x Emissions [1] (lbs/day)	CO Emissions [1] (lbs/day)	SO_X Emissions [1,2] (lbs/day)	PM_{10} Emissions [1] (lbs/day)	$PM_{2.5}$ Emissions [1] (lbs/day)
First Quarter	67.9	81.8	209.7	0.5	48.8	9.9
Second Quarter	67.3	47.6	198.9	0.3	38.6	7.3
Third Quarter	67.3	47.5	198.5	0.3	38.6	7.3
Fourth Quarter	80.9	44.1	194.6	0.3	38.0	7.2
EDCAQMD Mass Daily Significance Thresholds [3]	**82**	**82**	**-**	**-**	**-**	**-**
Do Emissions Exceed Threshold for any quarter of Construction?	NO	NO	**-**	**-**	**-**	**-**

Notes:

[1] Estimated as a sum of the average daily construction emissions for the North Site Remainder Area in **Table 3-3** and the maximum daily operational emissions for the Costco EDH Project in Table 4-16 of the EDH Costco Project Air Quality Technical Report.

[2] For purposes of this analysis SO_X emissions are assumed to be equal to SO2.

[3] Obtained from EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

Abbreviations:

CAP - Criteria Air Pollutant
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
EDH - El Dorado Hills
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table 3-5. Summary of Construction Greenhouse Gas Emissions - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Emissions Category	**Emissions [1,2,3] (MT CO_2e/yr)**
Construction Emissions (2027)	1,232
Construction Emissions (2028)	197
Construction GHG Threshold [4]	**10,000**
Do Either Year of Construction Exceed the Threshold?	NO

Notes:

[1] Emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[2] Emissions totals may not add up due to rounding. Emissions shown as zero may be non-zero values; however, they are below a meaningful reporting level for this analysis.

[3] Obtained from CalEEMod output file for the North Site Remainder Area Development in **Appendix A**.

[4] Placer County Thresholds of Significance - Chapter 2. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

CH_4 - methane

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalents

GHG - greenhouse gas

MT - metric tons

N_2O - nitrous oxide

yr - year

Table 3-6. Energy Resource Summary for Proposed Project Construction
El Dorado Hills Costco Project
El Dorado Hills, California

Energy Resource	Year	Energy Consumption for the North Site Remainder Area Construction [1]	Energy Consumption for the EDH Costco Project Construction [2]	Total Energy Consumption for Proposed Project Construction [3] (gallons)	El Dorado County Annual Consumption [4,5] (gallons)	Proposed Project Construction Contribution to El Dorado County Annual Consumption (%)	California Annual Consumption [4,5] (gallons)	Proposed Project Construction Contribution to California Annual Consumption (%)
Gasoline (gallons/yr)	2026	-	10,851	10,851	65,259,604	0.02%	13,896,130,020	0.00008%
Diesel (gallons/yr)	2026	-	159,850	159,850	14,555,710	1.10%	4,342,164,261	0.00368%
Electricity (kWh/yr)	2026	-	88	88	1,339,206,633	0.00001%	282,782,592,309	0.00000003%
Gasoline (gallons/yr)	2027	4,906	9,121	14,027	64,229,365	0.02%	13,625,442,497	0.00010%
Diesel (gallons/yr)	2027	118,647	56,712	175,359	14,262,073	1.23%	4,330,293,013	0.00405%
Electricity (kWh/yr)	2027	-	59	59	1,339,206,633	0.000004%	282,782,592,309	0.00000002%
Gasoline (gallons/yr)	2028	2,873	-	2,873	63,126,214	0.00%	13,365,596,850	0.00002%
Diesel (gallons/yr)	2028	17,852	-	17,852	13,968,581	0.13%	4,312,144,863	0.00041%

Conversion Factors:

1,000,000 kWh/GWh

Notes:

[1] Estimated as a sum of the fuel consumption of the off-road construction equipment (**Table D-1**) and on-road vehicles (**Table D-2**) used during construction of the North Site Remainder Area.

[2] Obtained from Table 5-2 in the EDH Costco Energy Technical Report.

[3] Estimated as a sum of the energy consumption for construction of the North Site Remainder Area and the EDH Costco Project.

[4] Fuel consumption data for El Dorado County and the State of California are obtained from EMFAC2021 and OFFROAD2021 for calendar years 2026, 2027, and 2028.

[5] Electricity consumption data for El Dorado County and the State of California are obtained from https://www.energy.ca.gov/files/energy-consumption-data-files for calendar year 2024 as that was the most recent data available. Accessed: October 2025.

Abbreviations:

% - percent

EDH - El Dorado Hills

EMFAC - California Air Resources Board Emissions Factor Model

GWh - gigawatt hour

kWh - kilowatt hour

yr - year

Table 3-7. Maximum Daily Criteria Air Pollutant Emissions for Operations of the Proposed Project
El Dorado Hills Costco Project
El Dorado Hills, California

Proposed Project Land Use	Emission Category [1]	ROG Emissions (lbs/day)	NO_x Emissions (lbs/day)	CO Emissions (lbs/day)	SO_X Emissions [2] (lbs/day)	PM_{10} Emissions (lbs/day)	$PM_{2.5}$ Emissions (lbs/day)
EDH Costco Project	Area [3]	4.7	0.1	11.6	0.00	0.02	0.02
EDH Costco Project	Energy [3]	0.02	0.4	0.3	0.00	0.03	0.03
EDH Costco Project	Mobile [3]	41.7	31	167.5	0.30	36.5	6.8
EDH Costco Project	Stationary Sources [3]	0.8	2.3	2.1	0.00	0.12	0.12
EDH Costco Project	Gasoline Dispensing Facility [3]	19.3	-	-	-	-	-
North Site Remainder Area	Area [4]	3.3	0.05	6.0	0.00	0.01	0.01
North Site Remainder Area	Energy [4]	0.02	0.3	0.3	0.00	0.02	0.02
North Site Remainder Area	Mobile [4]	11.6	7.1	52.3	0.10	16.8	3.0
	Total Daily Emissions (lb/day)	**81.4**	**41.7**	**240**	**0.40**	**53.5**	**10.0**
	EDCAQMD Mass Daily Significance Thresholds [5]	**82**	**82**	**NA**	**NA**	**NA**	**NA**
	Exceeds Threshold?	NO	NO	-	-	-	-

Notes:

[1] Emissions totals may not add up due to rounding. Emissions shown as zero may be non-zero values; however, they are below a meaningful reporting level for this analysis.

[2] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[3] Obtained from Table 4-16 in the EDH Costco Project Air Quality Technical Report.

[4] Obtained from the CalEEMod output file for the North Site Remainder Area Development in **Appendix A**.

[5] EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act. Available at: https://www.eldoradocounty.ca.gov/files/assets/county/v/1/documents/government/air-quality/guide-to-air-quality-assessment.pdf. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
EDH - El Dorado Hills
lb - pound
NA - not applicable
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table 3-8. Summary of Greenhouse Gas Emissions for Proposed Project Operations
El Dorado Hills Costco Project
El Dorado Hills, California

Proposed Project Land Use	Emissions Category	Emissions [1,2]	Unit
EDH Costco Project	Area Sources [3]	3.9	MT CO_2e/yr
EDH Costco Project	Energy Usage [3]	78	MT CO_2e/yr
EDH Costco Project	Mobile [3]	4,731	MT CO_2e/yr
EDH Costco Project	Water [3]	17	MT CO_2e/yr
EDH Costco Project	Waste Disposed [3]	224	MT CO_2e/yr
EDH Costco Project	Refrigerant [3]	0.13	MT CO_2e/yr
EDH Costco Project	Vegetation [3]	11	MT CO_2e/yr
EDH Costco Project	Generators [3]	9.6	MT CO_2e/yr
EDH Costco Project	On-Site Electric Vehicle Chargers [3]	-2,908	MT CO_2e/yr
North Site Remainder Area	Area Sources [4]	2.0	MT CO_2e/yr
North Site Remainder Area	Energy Usage [4]	122.9	MT CO_2e/yr
North Site Remainder Area	Mobile [4]	1,601	MT CO_2e/yr
North Site Remainder Area	Water [4]	15.1	MT CO_2e/yr
North Site Remainder Area	Waste Disposed [4]	45.2	MT CO_2e/yr
North Site Remainder Area	Refrigerant [4]	0.1	MT CO_2e/yr
North Site Remainder Area	Vegetation [4]	0.0	MT CO_2e/yr
	Operational Emissions	**3,954**	**MT CO_2e/yr**
	Calculated Efficiency Metric [5]	**13.04**	**MT CO_2e/1,000 sqft**
	Operational GHG Efficiency Metric Threshold [6]	**26.50**	**MT CO_2e/1,000 sqft**
	Exceeds Threshold?	NO	**-**

Notes:

[1] Emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

[2] Emissions totals may not add up due to rounding. Emissions shown as zero may be non-zero values; however, they are below a meaningful reporting level for this analysis.

[3] Obtained from Table 4-17 in the EDH Costco Project Greenhouse Gas Technical Report.

[4] Obtained from CalEEMod output file for the North Site Remainder Area Development in **Appendix A**.

[5] Efficiency metric is calculated as the total operational emissions divided by the sum of the building square footage of the regional shopping center and the building square footage of the EDH Costco Project (303,200 sqft).

[6] Placer County Thresholds of Significance - Chapter 2. Available at: https://www.placerair.org/DocumentCenter/View/2047/Chapter-2-Thresholds-of-Significance-PDF. Accessed: October 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

CH_4 - methane

CO_2 - carbon dioxide

CO_2e - carbon dioxide equivalents

EDH - El Dorado Hills

GHG - greenhouse gas

MT - metric tons

N_2O - nitrous oxide

sqft - square feet

yr - year

Table 3-9. Energy Resource Summary for Proposed Project Operation
El Dorado Hills Costco Project
El Dorado Hills, California

Energy Resource	Energy Consumption for the North Site Remainder Area Operation [1]	Energy Consumption for the EDH Costco Project Operation [2]	Total Energy Consumption for Proposed Project Operation [3]	El Dorado County Annual Consumption [4,5,6]	Proposed Project Operation Contribution to El Dorado County Annual Consumption (%)	California Annual Consumption [4,5,6]	Proposed Project Operation Contribution to California Annual Consumption (%)
Electricity (kWh/yr)	1,673,392	6,026,405	7,699,797	1,339,206,633	0.57%	282,782,592,309	0.00272%
Natural Gas (kBtu/yr)	1,192,913	1,423,224	2,616,137	3,196,879,463	0.08%	1,110,086,615,369	0.00024%
Gasoline (gallons/yr)	145,697	285,366	431,064	63,126,214	0.68%	13,365,596,850	0.00323%
Diesel (gallons/yr)	24,867	169,371	194,238	13,968,581	1.39%	4,312,144,863	0.00450%

Conversion Factors:

1,000,000	kWh/GWh
99,976.1	Btu/therm
1,000	Btu/kBtu

Notes:

[1] Estimated as a sum of the fuel consumption of Remainder Parcel operational sources listed in **Tables F-1, F-2,** and **F-5** through **F-9**.

[2] Obtained from Table 5-3 in the EDH Costco Energy Technical Report.

[3] Estimated as a sum of the energy consumption for operation of the North Site Remainder Area and the EDH Costco Project.

[4] Diesel and gasoline consumption data for El Dorado County and the State of California are obtained from EMFAC2021 and OFFROAD2021 for calendar year 2028.

[5] Electricity consumption data for El Dorado County and the State of California are obtained from https://www.energy.ca.gov/files/energy-consumption-data-files for calendar year 2024 as that was the most recent data available. Accessed: October 2025.

[6] Natural gas consumption data for El Dorado County and the State of California are obtained from https://www.energy.ca.gov/files/energy-consumption-data-files for calendar year 2024 as that was the most recent data available. Accessed: October 2025.

Abbreviations:

% - percent
Btu - British thermal unit
EDH - El Dorado Hills
EMFAC - EMission FACtors model
GWh - gigawatt hour
kBtu - kilo-British thermal unit
kWh - kilowatt hour
yr - year

APPENDIX A
NORTH SITE REMAINDER AREA CALEEMOD MODEL RUN

North Site Remainder Area Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	North Site Remainder Area
Construction Start Date	5/18/2027
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	9.40
Location	38.659852, -121.056799
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	406
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Regional Shopping Center	138	1000sqft	3.17	138,000	0.00	—	—	—

Parking Lot	10.6	Acre	10.6	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-6	Use Diesel Particulate Filters
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	103	103	111	37.9	0.66	1.63	30.4	32.1	1.55	6.29	7.83	—	63,577	63,577	0.61	9.01	85.6	66,363
Mit.	70.6	70.6	115	46.0	0.66	0.80	30.4	31.2	0.78	6.29	7.06	—	63,577	63,577	0.61	9.01	85.6	66,363
% Reduced	31%	31%	-4%	-21%	—	51%	—	3%	50%	—	10%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.43	1.22	10.6	15.0	0.03	0.34	1.75	2.09	0.31	0.26	0.58	—	3,516	3,516	0.11	0.14	0.08	3,561
Mit.	0.87	0.80	13.4	17.0	0.03	0.12	1.75	1.88	0.11	0.26	0.38	—	3,516	3,516	0.11	0.14	0.08	3,561
% Reduced	39%	34%	-26%	-13%	—	63%	—	10%	64%	—	35%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	6.17	6.10	15.6	11.7	0.07	0.34	3.58	3.92	0.32	0.76	1.07	—	7,190	7,190	0.11	0.81	3.72	7,439
Mit.	4.24	4.21	17.3	13.4	0.07	0.13	3.58	3.71	0.13	0.76	0.88	—	7,190	7,190	0.11	0.81	3.72	7,439
% Reduced	31%	31%	-11%	-15%	—	61%	—	5%	60%	—	18%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	1.11	2.85	2.13	0.01	0.06	0.65	0.71	0.06	0.14	0.20	—	1,190	1,190	0.02	0.13	0.62	1,232
Mit.	0.77	0.77	3.16	2.44	0.01	0.02	0.65	0.68	0.02	0.14	0.16	—	1,190	1,190	0.02	0.13	0.62	1,232
% Reduced	31%	31%	-11%	-15%	—	61%	—	5%	60%	—	18%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	5.19	4.25	111	37.9	0.66	1.63	30.4	32.1	1.55	6.29	7.83	—	63,577	63,577	0.61	9.01	85.6	66,363
2028	103	103	9.94	15.4	0.03	0.30	1.75	2.06	0.28	0.26	0.54	—	3,538	3,538	0.11	0.14	2.74	3,586
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.43	1.22	10.6	15.0	0.03	0.34	1.75	2.09	0.31	0.26	0.58	—	3,516	3,516	0.11	0.14	0.08	3,561
2028	1.38	1.16	10.0	14.9	0.03	0.30	1.75	2.06	0.28	0.26	0.54	—	3,492	3,492	0.11	0.14	0.07	3,537
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.26	1.06	15.6	11.7	0.07	0.34	3.58	3.92	0.32	0.76	1.07	—	7,190	7,190	0.11	0.81	3.72	7,439
2028	6.17	6.10	3.48	5.24	0.01	0.11	0.57	0.68	0.10	0.09	0.19	—	1,177	1,177	0.04	0.04	0.38	1,192
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.23	0.19	2.85	2.13	0.01	0.06	0.65	0.71	0.06	0.14	0.20	—	1,190	1,190	0.02	0.13	0.62	1,232
2028	1.13	1.11	0.63	0.96	< 0.005	0.02	0.10	0.12	0.02	0.02	0.03	—	195	195	0.01	0.01	0.06	197

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	2.97	2.56	115	46.0	0.66	0.80	30.4	31.2	0.78	6.29	7.06	—	63,577	63,577	0.61	9.01	85.6	66,363
2028	70.6	70.6	13.2	17.4	0.03	0.12	1.75	1.87	0.11	0.26	0.37	—	3,538	3,538	0.11	0.14	2.74	3,586
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.87	0.80	13.4	17.0	0.03	0.12	1.75	1.88	0.11	0.26	0.38	—	3,516	3,516	0.11	0.14	0.08	3,561
2028	0.85	0.77	13.2	16.9	0.03	0.12	1.75	1.87	0.11	0.26	0.37	—	3,492	3,492	0.11	0.14	0.07	3,537
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.72	0.65	17.3	13.4	0.07	0.13	3.58	3.71	0.13	0.76	0.88	—	7,190	7,190	0.11	0.81	3.72	7,439
2028	4.24	4.21	4.55	5.90	0.01	0.04	0.57	0.61	0.04	0.09	0.12	—	1,177	1,177	0.04	0.04	0.38	1,192
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.13	0.12	3.16	2.44	0.01	0.02	0.65	0.68	0.02	0.14	0.16	—	1,190	1,190	0.02	0.13	0.62	1,232
2028	0.77	0.77	0.83	1.08	< 0.005	0.01	0.10	0.11	0.01	0.02	0.02	—	195	195	0.01	0.01	0.06	197

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	15.5	14.9	6.54	58.5	0.10	0.14	16.7	16.8	0.13	2.93	3.06	97.7	10,797	10,895	10.6	0.58	30.1	11,362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	13.2	12.6	7.46	52.5	0.09	0.13	16.7	16.8	0.12	2.93	3.05	97.7	10,089	10,186	10.7	0.63	1.42	10,644
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.8	13.2	7.16	53.2	0.10	0.13	16.4	16.6	0.12	2.89	3.02	97.7	10,231	10,329	10.6	0.61	13.4	10,791
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.52	2.41	1.31	9.70	0.02	0.02	3.00	3.02	0.02	0.53	0.55	16.2	1,694	1,710	1.76	0.10	2.21	1,787

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.1	11.6	6.17	52.3	0.10	0.10	16.7	16.8	0.10	2.93	3.02	—	10,033	10,033	0.57	0.52	29.4	10,230
Area	3.36	3.28	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	15.5	14.9	6.54	58.5	0.10	0.14	16.7	16.8	0.13	2.93	3.06	97.7	10,797	10,895	10.6	0.58	30.1	11,362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.9	10.3	7.14	52.2	0.09	0.10	16.7	16.8	0.10	2.93	3.02	—	9,349	9,349	0.69	0.57	0.76	9,536
Area	2.29	2.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66

Total	13.2	12.6	7.46	52.5	0.09	0.13	16.7	16.8	0.12	2.93	3.05	97.7	10,089	10,186	10.7	0.63	1.42	10,644
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.0	10.4	6.81	49.9	0.09	0.10	16.4	16.5	0.10	2.89	2.99	—	9,480	9,480	0.64	0.55	12.7	9,671
Area	2.82	2.78	0.02	2.96	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.2
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	13.8	13.2	7.16	53.2	0.10	0.13	16.4	16.6	0.12	2.89	3.02	97.7	10,231	10,329	10.6	0.61	13.4	10,791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.00	1.90	1.24	9.11	0.02	0.02	3.00	3.02	0.02	0.53	0.55	—	1,569	1,569	0.11	0.09	2.10	1,601
Area	0.51	0.51	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	121	121	0.03	< 0.005	—	123
Water	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	2.52	2.41	1.31	9.70	0.02	0.02	3.00	3.02	0.02	0.53	0.55	16.2	1,694	1,710	1.76	0.10	2.21	1,787

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	12.1	11.6	6.17	52.3	0.10	0.10	16.7	16.8	0.10	2.93	3.02	—	10,033	10,033	0.57	0.52	29.4	10,230
Area	3.36	3.28	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2

Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	15.5	14.9	6.54	58.5	0.10	0.14	16.7	16.8	0.13	2.93	3.06	97.7	10,797	10,895	10.6	0.58	30.1	11,362
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	10.9	10.3	7.14	52.2	0.09	0.10	16.7	16.8	0.10	2.93	3.02	—	9,349	9,349	0.69	0.57	0.76	9,536
Area	2.29	2.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	13.2	12.6	7.46	52.5	0.09	0.13	16.7	16.8	0.12	2.93	3.05	97.7	10,089	10,186	10.7	0.63	1.42	10,644
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	11.0	10.4	6.81	49.9	0.09	0.10	16.4	16.5	0.10	2.89	2.99	—	9,480	9,480	0.64	0.55	12.7	9,671
Area	2.82	2.78	0.02	2.96	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.2	12.2	< 0.005	< 0.005	—	12.2
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	732	732	0.18	0.02	—	742
Water	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Waste	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	13.8	13.2	7.16	53.2	0.10	0.13	16.4	16.6	0.12	2.89	3.02	97.7	10,231	10,329	10.6	0.61	13.4	10,791
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.00	1.90	1.24	9.11	0.02	0.02	3.00	3.02	0.02	0.53	0.55	—	1,569	1,569	0.11	0.09	2.10	1,601
Area	0.51	0.51	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02
Energy	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	121	121	0.03	< 0.005	—	123
Water	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11

Total	2.52	2.41	1.31	9.70	0.02	0.02	3.00	3.02	0.02	0.53	0.55	16.2	1,694	1,710	1.76	0.10	2.21	1,787

3. Construction Emissions Details

3.1. Site Preparation (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.63	3.05	28.0	28.3	0.05	1.17	—	1.17	1.08	—	1.08	—	5,298	5,298	0.21	0.04	—	5,316
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.77	0.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.97	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	189	189	< 0.005	0.01	0.63	192
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	0.90	24.0	28.3	0.05	0.14	—	0.14	0.13	—	0.13	—	5,298	5,298	0.21	0.04	—	5,316
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.66	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.12	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.97	0.00	0.00	0.54	0.54	0.00	0.08	0.08	—	189	189	< 0.005	0.01	0.63	192
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.77	4.77	< 0.005	< 0.005	0.01	4.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.79	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.51	2.95	25.6	27.3	0.06	1.04	—	1.04	0.96	—	0.96	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.71	3.71	—	1.44	1.44	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.10	2.24	0.01	0.09	—	0.09	0.08	—	0.08	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.41	< 0.005	0.02	—	0.02	0.01	—	0.01	—	89.8	89.8	< 0.005	< 0.005	—	90.1

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.10	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	217	217	< 0.005	0.01	0.72	220
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	1.59	1.22	85.0	9.51	0.60	0.59	26.1	26.7	0.59	4.75	5.34	—	56,762	56,762	0.34	8.95	84.9	59,523
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	16.4	16.4	< 0.005	< 0.005	0.03	16.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	0.10	7.33	0.79	0.05	0.05	2.11	2.16	0.05	0.39	0.43	—	4,665	4,665	0.03	0.74	3.01	4,888
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.71	2.71	< 0.005	< 0.005	< 0.005	2.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.34	0.14	0.01	0.01	0.39	0.39	0.01	0.07	0.08	—	772	772	< 0.005	0.12	0.50	809

3.4. Grading (2027) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.29	1.26	29.7	35.4	0.06	0.21	—	0.21	0.19	—	0.19	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.71	3.71	—	1.44	1.44	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.10	2.44	2.91	0.01	0.02	—	0.02	0.02	—	0.02	—	542	542	0.02	< 0.005	—	544
Dust From Material Movement	—	—	—	—	—	—	0.30	0.30	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.45	0.53	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	89.8	89.8	< 0.005	< 0.005	—	90.1
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.06	1.10	0.00	0.00	0.62	0.62	0.00	0.09	0.09	—	217	217	< 0.005	0.01	0.72	220
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	1.59	1.22	85.0	9.51	0.60	0.59	26.1	26.7	0.59	4.75	5.34	—	56,762	56,762	0.34	8.95	84.9	59,523
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	16.4	16.4	< 0.005	< 0.005	0.03	16.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	0.10	7.33	0.79	0.05	0.05	2.11	2.16	0.05	0.39	0.43	—	4,665	4,665	0.03	0.74	3.01	4,888
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	2.71	2.71	< 0.005	< 0.005	< 0.005	2.75
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.02	1.34	0.14	0.01	0.01	0.39	0.39	0.01	0.07	0.08	—	772	772	< 0.005	0.12	0.50	809

3.5. Building Construction (2027) - Unmitigated

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

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

Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.84	6.66	0.01	0.17	—	0.17	0.16	—	0.16	—	1,235	1,235	0.05	0.01	—	1,239
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.88	1.22	< 0.005	0.03	—	0.03	0.03	—	0.03	—	204	204	0.01	< 0.005	—	205
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.13	2.44	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	478	478	0.01	0.02	1.60	485
Vendor	0.02	0.02	0.96	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	688	688	< 0.005	0.10	1.42	721

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.16	1.91	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	430	430	0.01	0.02	0.04	436
Vendor	0.02	0.02	1.01	0.18	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	688	688	< 0.005	0.10	0.04	719
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	1.00	0.00	0.00	0.69	0.69	0.00	0.10	0.10	—	226	226	0.01	0.01	0.36	230
Vendor	0.01	0.01	0.51	0.09	< 0.005	< 0.005	0.19	0.19	< 0.005	0.03	0.04	—	355	355	< 0.005	0.05	0.32	371
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.13	0.13	0.00	0.02	0.02	—	37.5	37.5	< 0.005	< 0.005	0.06	38.0
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	58.7	58.7	< 0.005	0.01	0.05	61.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.61	12.2	15.0	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	0.32	6.27	7.70	0.01	0.06	—	0.06	0.06	—	0.06	—	1,235	1,235	0.05	0.01	—	1,239
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.15	1.41	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.01	< 0.005	—	205
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.13	2.44	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	478	478	0.01	0.02	1.60	485
Vendor	0.02	0.02	0.96	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	688	688	< 0.005	0.10	1.42	721
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.16	1.91	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	430	430	0.01	0.02	0.04	436

Vendor	0.02	0.02	1.01	0.18	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	688	688	< 0.005	0.10	0.04	719
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.08	1.00	0.00	0.00	0.69	0.69	0.00	0.10	0.10	—	226	226	0.01	0.01	0.36	230
Vendor	0.01	0.01	0.51	0.09	< 0.005	< 0.005	0.19	0.19	< 0.005	0.03	0.04	—	355	355	< 0.005	0.05	0.32	371
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.00	0.13	0.13	0.00	0.02	0.02	—	37.5	37.5	< 0.005	< 0.005	0.06	38.0
Vendor	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	58.7	58.7	< 0.005	0.01	0.05	61.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	0.99	8.92	12.9	0.02	0.30	—	0.30	0.28	—	0.28	—	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.36	0.30	2.74	3.97	0.01	0.09	—	0.09	0.08	—	0.08	—	736	736	0.03	0.01	—	738
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.50	0.72	< 0.005	0.02	—	0.02	0.02	—	0.02	—	122	122	< 0.005	< 0.005	—	122
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	0.11	2.29	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	469	469	0.01	0.02	1.45	475
Vendor	0.02	0.02	0.90	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	672	672	< 0.005	0.10	1.29	704
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.15	1.79	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	422	422	0.01	0.02	0.04	428
Vendor	0.02	0.02	0.95	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	672	672	< 0.005	0.10	0.03	703
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.56	0.00	0.00	0.41	0.41	0.00	0.06	0.06	—	132	132	< 0.005	0.01	0.19	134
Vendor	0.01	< 0.005	0.29	0.05	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	206	206	< 0.005	0.03	0.17	216

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	21.9	21.9	< 0.005	< 0.005	0.03	22.2
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	34.2	34.2	< 0.005	0.01	0.03	35.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	0.60	12.1	14.9	0.02	0.11	—	0.11	0.10	—	0.10	—	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	0.60	12.1	14.9	0.02	0.11	—	0.11	0.10	—	0.10	—	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.18	3.73	4.59	0.01	0.04	—	0.04	0.03	—	0.03	—	736	736	0.03	0.01	—	738

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.68	0.84	< 0.005	0.01	—	0.01	0.01	—	0.01	—	122	122	< 0.005	< 0.005	—	122
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.19	0.11	2.29	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	469	469	0.01	0.02	1.45	475
Vendor	0.02	0.02	0.90	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	672	672	< 0.005	0.10	1.29	704
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.15	1.79	0.00	0.00	1.38	1.38	0.00	0.20	0.20	—	422	422	0.01	0.02	0.04	428
Vendor	0.02	0.02	0.95	0.17	< 0.005	< 0.005	0.38	0.38	< 0.005	0.07	0.07	—	672	672	< 0.005	0.10	0.03	703
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.56	0.00	0.00	0.41	0.41	0.00	0.06	0.06	—	132	132	< 0.005	0.01	0.19	134
Vendor	0.01	< 0.005	0.29	0.05	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	206	206	< 0.005	0.03	0.17	216
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	0.08	0.08	0.00	0.01	0.01	—	21.9	21.9	< 0.005	< 0.005	0.03	22.2
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	34.2	34.2	< 0.005	0.01	0.03	35.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.69	6.63	9.91	0.01	0.26	—	0.26	0.24	—	0.24	—	1,511	1,511	0.06	0.01	—	1,516
Paving	1.39	1.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.36	0.54	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.78	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	159	159	< 0.005	0.01	0.49	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.03	0.03	0.00	< 0.005	< 0.005	—	8.02	8.02	< 0.005	< 0.005	0.01	8.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.33	1.33	< 0.005	< 0.005	< 0.005	1.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.50	0.45	8.08	10.6	0.01	0.10	—	0.10	0.09	—	0.09	—	1,511	1,511	0.06	0.01	—	1,516
Paving	1.39	1.39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.44	0.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.04	0.78	0.00	0.00	0.47	0.47	0.00	0.07	0.07	—	159	159	< 0.005	0.01	0.49	161
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.03	0.03	0.00	< 0.005	< 0.005	—	8.02	8.02	< 0.005	< 0.005	0.01	8.14

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.33	1.33	< 0.005	< 0.005	< 0.005	1.35
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	102	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34

Architectural	5.61	5.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	1.02	1.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.46	0.00	0.00	0.28	0.28	0.00	0.04	0.04	—	93.8	93.8	< 0.005	< 0.005	0.29	95.1
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	0.01	4.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	70.4	70.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	3.86	3.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	0.70	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.46	0.00	0.00	0.28	0.28	0.00	0.04	0.04	—	93.8	93.8	< 0.005	< 0.005	0.29	95.1
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	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.72	4.72	< 0.005	< 0.005	0.01	4.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

4.1.2. Mitigated

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

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.11	0.01	—	269
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	88.5	88.5	0.04	< 0.005	—	90.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.15	0.02	—	360
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.11	0.01	—	269
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	88.5	88.5	0.04	< 0.005	—	90.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.15	0.02	—	360

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	43.5	43.5	0.02	< 0.005	—	44.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.7	14.7	0.01	< 0.005	—	15.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	58.1	58.1	0.02	< 0.005	—	59.6

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.11	0.01	—	269
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	88.5	88.5	0.04	< 0.005	—	90.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.15	0.02	—	360
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	263	263	0.11	0.01	—	269
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	88.5	88.5	0.04	< 0.005	—	90.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	351	351	0.15	0.02	—	360

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	43.5	43.5	0.02	< 0.005	—	44.6
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	14.7	14.7	0.01	< 0.005	—	15.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	58.1	58.1	0.02	< 0.005	—	59.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.2	63.2	0.01	< 0.005	—	63.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.2	63.2	0.01	< 0.005	—	63.3

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	381	381	0.03	< 0.005	—	383

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.2	63.2	0.01	< 0.005	—	63.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	63.2	63.2	0.01	< 0.005	—	63.3

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.73	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.07	0.99	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Total	3.36	3.28	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	1.73	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.29	2.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.32	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.10	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02
Total	0.51	0.51	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.73	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	1.07	0.99	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Total	3.36	3.28	0.05	6.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.7	24.7	< 0.005	< 0.005	—	24.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.73	1.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.29	2.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.32	0.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.10	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02
Total	0.51	0.51	< 0.005	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.02	2.02	< 0.005	< 0.005	—	2.02

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1

4.4.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.6	6.99	26.6	2.01	0.05	—	91.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.24	1.16	4.40	0.33	0.01	—	15.1

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	78.1	0.00	78.1	7.81	0.00	—	273
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.66	0.66
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.11	0.11

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

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

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	5/18/2027	5/27/2027	7.00	10.0	—
Grading	Grading	5/28/2027	6/26/2027	7.00	30.0	—
Building Construction	Building Construction	6/27/2027	4/21/2028	7.00	300	—
Paving	Paving	4/22/2028	5/11/2028	7.00	20.0	—
Architectural Coating	Architectural Coating	5/12/2028	5/31/2028	7.00	20.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	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	Tier 3	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 3	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Tier 3	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 3	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	Tier 3	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	Tier 3	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 3	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	667	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	44.2	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	22.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.83	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	667	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	44.2	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	22.6	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	14.3	LDA,LDT1,LDT2

Paving	Vendor	—	8.80	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	8.83	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	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	207,000	69,000	27,756

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	15.0	0.00	—
Grading	107,000	53,000	90.0	0.00	—
Paving	0.00	0.00	0.00	0.00	10.6

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Regional Shopping Center	0.00	0%
Parking Lot	10.6	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	204	0.03	< 0.005
2028	0.00	204	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
Total all Land Uses	2,536	2,536	2,536	925,640	11,462	11,462	11,462	4,183,630

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	2,536	2,536	2,536	925,640	11,462	11,462	11,462	4,183,630

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	207,000	69,000	27,756

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)
Regional Shopping Center	1,202,266	79.7	0.0330	0.0040	1,190,333
Parking Lot	405,244	79.7	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)
Regional Shopping Center	1,202,266	79.7	0.0330	0.0040	1,190,333
Parking Lot	405,244	79.7	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)
Regional Shopping Center	10,222,008	0.00
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Regional Shopping Center	10,222,008	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Regional Shopping Center	145	—
Parking Lot	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Regional Shopping Center	145	—

Parking Lot	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
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

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)

8. User Changes to Default Data

Screen	Justification
Characteristics: Utility Information	CO2 emission factor estimated based upon RPS compliance.
Land Use	Based on project-specific information.
Construction: Construction Phases	Based on project-specific information
Construction: Dust From Material Movement	Construction material movement based on project-specific information. Watering 2x/day based on Rule 223-1, Table 1.
Construction: Architectural Coatings	Updated the VOC emission factor based on EDCAPCD Rule 215 Limits.
Operations: Consumer Products	Updated based on county specific data, refer to report for further details.
Operations: Architectural Coatings	Updated the VOC emission factor based on EDCAPCD Rule 215 Limits.
Construction: On-Road Fugitive Dust	Percent paved roads updated based on Project-specific information.
Operations: Road Dust	Percent paved roads updated based on Project-specific information.

APPENDIX B
CONSTRUCTION INPUTS

List of Tables

Table B-1. Construction Schedule - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name [1]	CalEEMod Phase Type [1]	Start Date [1]	End Date [1]	Phase Duration [2] (days)
Site Preparation	Site Preparation	5/18/2027	5/27/2027	10
Grading	Grading	5/28/2027	6/26/2027	30
Building Construction	Building Construction	6/27/2027	4/21/2028	300
Paving	Paving	4/22/2028	5/11/2028	20
Architectural Coating	Architectural Coating	5/12/2028	5/31/2028	20

Notes:

[1] Construction of the North Side Remainder Area land uses is conservatively assumed to begin immediately after the EDH Costco Project is operational. Construction phases and duration are based on CalEEMod defaults.

[2] The construction work week was assumed to be 7 days per week.

Abbreviations:

CalEEMod - California Emissions Estimator Model

EDH - El Dorado Hills

Table B-2. Construction Equipment Assumptions - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Offroad Equipment Type [1]	Number of Equipment [1]	Usage Hours [1] (hours/ day)	Equipment Horsepower [1] (hp)	Equipment Load Factor [1]	Fuel Type [1]	Engine Tier for Unmitigated Project [1]	Diesel Particulate Filter Level for Unmitigated Project [1]	Engine Tier for Mitigated Project [2]	Diesel Particulate Filter Level for Mitigated Project [2]
Site Preparation	Rubber Tired Dozers	3	8	367	0.40	Diesel	Average	N/A	Tier 3	Level 3
Site Preparation	Tractors/Loaders/ Backhoes	4	8	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Grading	Excavators	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Grading	Graders	1	8	148	0.41	Diesel	Average	N/A	Tier 3	Level 3
Grading	Rubber Tired Dozers	1	8	367	0.40	Diesel	Average	N/A	Tier 3	Level 3
Grading	Scrapers	2	8	423	0.48	Diesel	Average	N/A	Tier 3	Level 3
Grading	Tractors/Loaders/ Backhoes	2	8	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Cranes	1	7	367	0.29	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Forklifts	3	8	82	0.20	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Generator Sets	1	8	14	0.74	Diesel	Average	N/A	Average	N/A
Building Construction	Tractors/Loaders/ Backhoes	3	7	84	0.37	Diesel	Average	N/A	Tier 3	Level 3
Building Construction	Welders	1	8	46	0.45	Diesel	Average	N/A	Average	N/A
Paving	Pavers	2	8	81	0.42	Diesel	Average	N/A	Tier 3	Level 3
Paving	Paving Equipment	2	8	89	0.36	Diesel	Average	N/A	Tier 3	Level 3
Paving	Rollers	2	8	36	0.38	Diesel	Average	N/A	Average	N/A
Architectural Coating	Air Compressors	1	6	37	0.48	Diesel	Average	N/A	Average	N/A

Notes:

[1] Based on CalEEMod default values.

[2] The mitigation measure requires that construction equipment greater than 50 hp used at the site shall be mitigated to meet USEPA Tier 4 Final emission standards for PM_{10} and $PM_{2.5}$. If Tier 4 Final equipment is viable but not available, all construction equipment larger than 50 horsepower used at the site shall meet USEPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices. To be conservative, this analysis assumed that off-road construction equipment larger than 50 horsepower are equipped with Tier 3 engines and DPFs for the mitigated emissions.

Abbreviations:

CalEEMod - California Emissions Estimator Model
CARB - California Air Resources Board
DPF - Diesel Particulate Filter
hp - horsepower
N/A - not available
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
USEPA - United States Environmental Protection Agency

Table B-3. Construction Trip Assumptions - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Worker Trips per Day [1,2]	Vendor Trips per Day [1,2]	Hauling Trips per Day [1,2]
Site Preparation	18	0	0
Grading	20	0	667
Building Construction	44	23	0
Paving	15	0	0
Architectural Coating	9	0	0

Notes:

[1] Trips are presented as one-way trips per day.

[2] Worker, vendor, and hauling trips are based on CalEEMod defaults. The one-way trip lengths for worker, vendor, and hauling trips are assumed to be the CalEEMod default values of 14.3 miles, 8.8 miles, and 20.0 miles, respectively.

Abbreviations:

CalEEMod - California Emissions Estimator Model

Table B-4. Construction Material Movement - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	Material Imported [1] (yd^3)	Material Exported [1] (yd^3)
Grading	107,000	53,000

Notes:
[1] Soil import and export quantities based on project-specific data.

Abbreviations:
yd^3 - cubic yard

APPENDIX C
CONSTRUCTION EMISSION CALCULATION TABLES

List of Tables

Table C-1. Estimating Unmitigated Criteria Air Pollutant Emissions for North Site Remainder Area Construction
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phases [1]	Start Date	End Date	Number of Construction Days	Construction Time Period	Season [2]	Daily ROG Emissions [3] (lbs/day)	Daily NO_X Emissions [3] (lbs/day)	Daily CO Emissions [3] (lbs/day)	Daily SO_X Emissions [3,4] (lbs/day)	Daily PM_{10} Emissions [3,5] (lbs/day)	Daily $PM_{2.5}$ Emissions [3,5] (lbs/day)	Total ROG Emissions [6] (lbs)	Total NO_X Emissions [6] (lbs)	Total CO Emissions [6] (lbs)	Total SO_X Emissions [4,6] (lbs)	Total PM_{10} Emissions [5,6] (lbs)	Total $PM_{2.5}$ Emissions [5,6] (lbs)
Site Preparation	5/18/2027	5/27/2027	10	First Quarter	Summer	3.1	28.0	29.2	0.0	9.4	5.1	31	280	292	0.5	94	51
Grading	5/28/2027	6/26/2027	30	First Quarter	Summer	4.3	110.7	37.9	0.7	32.1	7.8	128	3,320	1,137	19.9	962	235
Building Construction	6/27/2027	8/17/2027	52	First Quarter	Summer	1.2	10.5	15.6	0.0	2.1	0.6	64	545	809	1.4	109	30
Building Construction	8/18/2027	9/30/2027	44	Second Quarter	Summer	1.2	10.5	15.6	0.0	2.1	0.6	55	461	684	1.2	92	25
Building Construction	10/1/2027	11/17/2027	48	Second Quarter	Winter	1.2	10.6	15.0	0.0	2.1	0.6	59	507	721	1.3	100	28
Building Construction	11/18/2027	12/31/2027	44	Third Quarter	Winter	1.2	10.6	15.0	0.0	2.1	0.6	54	465	661	1.2	92	25
Building Construction	1/1/2028	2/17/2028	48	Third Quarter	Winter	1.2	10.0	14.9	0.0	2.1	0.5	56	481	715	1.3	99	26
Building Construction	2/18/2028	3/31/2028	43	Fourth Quarter	Winter	1.2	10.0	14.9	0.0	2.1	0.5	50	431	641	1.2	88	23
Building Construction	4/1/2028	4/21/2028	21	Fourth Quarter	Summer	1.2	9.9	15.4	0.0	2.1	0.5	25	209	323	0.6	43	11
Paving	4/22/2028	5/11/2028	20	Fourth Quarter	Summer	2.1	6.7	10.7	0.0	0.7	0.3	43	133	214	0.3	14	6
Architectural Coating	5/12/2028	5/31/2028	20	Fourth Quarter	Summer	102.6	0.8	1.6	0.0	0.3	0.1	2,051	17	32	0.0	6	1

Notes:

[1] Construction phases and duration are based on CalEEMod defaults. Refer to **Appendix B** for further details.

[2] Based on CalEEMod defaults.

[3] Estimated by summing up the maximum daily emissions for the construction phase. Maximum daily emissions for the Site Preparation; Grading; Building Construction; Paving; and Architectural Coating phases are obtained from **Appendix A**.

[4] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[5] Particulate matter emissions include exhaust emissions from off-road construction equipment, fugitive dust emissions from on-site construction activities, and exhaust/tire wear/brake wear/entrained road dust emissions from on-road vehicles associated with project construction. As noted in Section 4.2.3 of the Air Quality Technical Report, fugitive dust emissions will be controlled by watering the construction site twice daily in accordance with the EDCAQMD Rule 223-1. Particulate matter emissions presented here account for these control measures for fugitive dust emissions.

[6] Estimated by multiplying the maximum daily emissions by the number of construction days for each construction phase.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

Table C-2. Estimating Mitigated Criteria Air Pollutant Emissions for North Site Remainder Area Construction
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phases [1]	Start Date	End Date	Number of Construction Days	Construction Time Period	Season [2]	Daily ROG Emissions [3] (lbs/day)	Daily NO_X Emissions [3] (lbs/day)	Daily CO Emissions [3] (lbs/day)	Daily SO_X Emissions [3,4] (lbs/day)	Daily PM_{10} Emissions [3,5] (lbs/day)	Daily $PM_{2.5}$ Emissions [3,5] (lbs/day)	Total ROG Emissions [6] (lbs)	Total NO_X Emissions [6] (lbs)	Total CO Emissions [6] (lbs)	Total SO_X Emissions [4,6] (lbs)	Total PM_{10} Emissions [5,6] (lbs)	Total $PM_{2.5}$ Emissions [5,6] (lbs)
Site Preparation	5/18/2027	5/27/2027	10	First Quarter	Summer	1.0	24.1	29.3	0.0	8.4	4.1	10	241	293	0.5	84	41
Grading	5/28/2027	6/26/2027	30	First Quarter	Summer	2.6	114.8	46.0	0.7	31.2	7.1	77	3,445	1,381	19.9	937	212
Building Construction	6/27/2027	8/17/2027	52	First Quarter	Summer	0.8	13.3	17.6	0.0	1.9	0.4	43	690	913	1.4	98	20
Building Construction	8/18/2027	9/30/2027	44	Second Quarter	Summer	0.8	13.3	17.6	0.0	1.9	0.4	36	584	773	1.2	83	17
Building Construction	10/1/2027	11/17/2027	48	Second Quarter	Winter	0.8	13.4	17.0	0.0	1.9	0.4	39	641	818	1.3	90	18
Building Construction	11/18/2027	12/31/2027	44	Third Quarter	Winter	0.8	13.4	17.0	0.0	1.9	0.4	35	588	750	1.2	83	17
Building Construction	1/1/2028	2/17/2028	48	Third Quarter	Winter	0.8	13.2	16.9	0.0	1.9	0.4	37	636	811	1.3	90	18
Building Construction	2/18/2028	3/31/2028	43	Fourth Quarter	Winter	0.8	13.2	16.9	0.0	1.9	0.4	33	569	727	1.2	80	16
Building Construction	4/1/2028	4/21/2028	21	Fourth Quarter	Summer	0.8	13.2	17.4	0.0	1.9	0.4	17	276	365	0.6	39	8
Paving	4/22/2028	5/11/2028	20	Fourth Quarter	Summer	1.9	8.1	11.4	0.0	0.6	0.2	38	162	227	0.3	11	3
Architectural Coating	5/12/2028	5/31/2028	20	Fourth Quarter	Summer	70.6	0.8	1.6	0.0	0.3	0.1	1,411	17	32	0.0	6	1

Notes:

[1] Construction phases and duration are based on CalEEMod defaults. Refer to **Appendix B** for further details.

[2] Based on CalEEMod defaults.

[3] Estimated by summing up the maximum daily emissions for the construction phase. Maximum daily emissions for the Site Preparation; Grading; Building Construction; Paving; and Architectural Coating phases are obtained from **Appendix A**.

[4] For purposes of this analysis SO_X emissions are assumed to be equal to SO_2.

[5] Particulate matter emissions include exhaust emissions from off-road construction equipment, fugitive dust emissions from on-site construction activities, and exhaust/tire wear/brake wear/entrained road dust emissions from on-road vehicles associated with project construction. As noted in Section 4.2.3 of the Air Quality Technical Report, fugitive dust emissions will be controlled by watering the construction site twice daily in accordance with the EDCAQMD Rule 223-1. Particulate matter emissions presented here account for these control measures for fugitive dust emissions.

[6] Estimated by multiplying the maximum daily emissions by the number of construction days for each construction phase.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CO - carbon monoxide
EDCAQMD - El Dorado County Air Quality Management District
lb - pound
NO_x - nitrogen oxide compounds
PM_{10} - particulate matter less than 10 microns in diameter
$PM_{2.5}$ - particulate matter less than 2.5 microns in diameter
ROG - reactive organic gases
SO_2 - sulfur dioxide
SO_x - sulfur oxide compounds

APPENDIX D
CONSTRUCTION ENERGY CALCULATIONS

List of Tables

Table D-1. Off-Road Equipment Fuel Consumption During Construction - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name	CO_2 Emissions [1] (MT/yr)	Diesel Consumption [2] (gallons/yr)
Site Preparation (2027)	24.0	2,354
Grading (2027)	89.8	8,794
Building Construction (2027)	204.4	20,021
Building Construction (2028)	121.8	11,929
Paving (2028)	13.7	1,343
Architectural Coating (2028)	1.2	119

Constants:

10.21 kg CO_2/gallon diesel consumed in combustion engines [3]
1,000 kg CO_2/MT CO_2

Notes:

[1] Exhaust CO_2 emissions from off-road construction equipment used during the Site Preparation; Grading; Building Construction; Paving; and Architectural Coating construction phases that occur during remainder area development construction are obtained from the CalEEMod model run shown in **Appendix A**.

[2] Diesel consumption of off-road construction equipment during each construction phase is estimated as a ratio of the CO_2 emissions from these equipment to the CO_2 emission factor per gallon of diesel consumed.

[3] Obtained from the USEPA GHG Emission Factors Hub. Available at: https://www.epa.gov/system/files/documents/2025-01/ghg-emission-factors-hub-2025.pdf. Accessed: June 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CO_2 - carbon dioxide
GHG - greenhouse gas
kg - kilograms
MT - metric ton
USEPA - United States Environmental Protection Agency
yr - year

Table D-2. On-Road Vehicle Fuel Consumption During Construction - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Construction Phase Name [1]	Phase Duration [1] (days)	Worker Trip Rates [2] (one-way trips/day)	Vendor Trip Rates [2] (one-way trips/day)	Hauling Trip Number [2] (one-way trips/day)	Worker Trip Length [3] (miles/one-way trip)	Vendor Trip Length [3] (miles/one-way trip)	Hauling Trip Length [3] (miles/one-way trip)	Worker Vehicle Miles Traveled [4] (miles)	Vendor Vehicle Miles Traveled [4] (miles)	Hauling Vehicle Miles Traveled [4] (miles)	Worker Gasoline Fuel Consumption [5] (gallons)	Vendor Diesel Fuel Consumption [5] (gallons)	Hauling Diesel Fuel Consumption [5] (gallons)
Site Preparation (2027)	10	17.5	-	-	14.3	-	-	2,503	-	-	95	-	-
Grading (2027)	30	20.0	-	667	14.3	-	20.0	8,580	-	400,000	324	-	79,925
Building Construction (2027)	188	44.2	22.6	-	14.3	8.80	-	118,720	37,420	-	4,487	7,554	-
Building Construction (2028)	112	44.2	22.6	-	14.3	8.80	-	70,727	22,292	-	2,621	4,461	-
Paving (2028)	20	15.0	-	-	14.3	-	-	4,290	-	-	159	-	-
Architectural Coating (2028)	20	8.83	-	-	14.3	-	-	2,526	-	-	94	-	-

Notes:

[1] Construction phases and duration (**Table B-1**) are based on CalEEMod defaults. Refer to **Section 3** of the report for further details.

[2] The number of worker and vendor trips represent CalEEMod defaults based on the construction equipment used in each construction phase. The number of hauling trips were estimated by CalEEMod based on volume of soil that would be imported/exported during construction. Refer to **Appendix B** for further details.

[3] The trip lengths for on-road vehicles used during construction are CalEEMod default values.

[4] Estimated based on trip rates, trip length, and phase duration.

[5] Fuel consumption of on-road vehicles used during each construction phase are estimated as a product of the vehicle miles traveled by each vehicle type and its fuel consumption rate in gallons per mile.

[6] Fuel consumption rates for on-road vehicles are calculated using vehicle class-specific fuel consumption data from EMFAC2021 (see the supporting table below, which presents EMFAC2021 outputs for 2027 and 2028 in El Dorado-Mountain County), the fleet mix for each trip type (worker, vendor, and hauling), and vehicle miles traveled. The fleet mix for the worker, vendor, and hauling trucks are based on CalEEMod defaults. Worker vehicles are assumed to be gasoline fueled and include light duty automobiles and trucks (25% LDA, 50% LDT1, 25% LDT2). Vendor vehicles are assumed to be diesel fueled and include heavy heavy-duty trucks and medium heavy duty trucks (50% HHDT and 50% MHDT). Hauling vehicles are assumed to be diesel fueled and include heavy heavy-duty trucks (100% HHDT).

Fuel Consumption Rates by Vehicle Type: [6]

Worker Vehicles in 2027:	0.0378 gallons/mile
Worker Vehicles in 2028:	0.0371 gallons/mile
Vendor Vehicles in 2027:	0.2019 gallons/mile
Vendor Vehicles in 2028:	0.2001 gallons/mile
Haul Trucks in 2027:	0.1998 gallons/mile

Abbreviations:

CalEEMod - California Emissions Estimator Model
EMFAC - EMission FACtors model
HHDT - heavy heavy-duty trucks
LDA - light-duty automobile
LDT - light-duty truck
MHDT - medium heavy-duty trucks

Table D-2. On-Road Vehicle Fuel Consumption During Construction - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Supporting Table of EMFAC Outputs

Calendar Year	EMFAC Vehicle Class	Fuel Type	EMFAC VMT Output (miles)	EMFAC Fuel Use Output (gallons)	Average Fuel Consumption (gallons/mile)
2027	LDA	Gasoline	1,619,691	51,441	0.0318
2027	LDT1	Gasoline	181,944	7,232	0.0397
2027	LDT2	Gasoline	1,158,122	46,256	0.0399
2027	MHDT	Gasoline	5,957	1,215	0.2039
2027	HHDT	Diesel	28,804	5,755	0.1998
2028	LDA	Gasoline	1,633,311	50,730	0.0311
2028	LDT1	Gasoline	175,495	6,850	0.0390
2028	LDT2	Gasoline	1,170,851	45,776	0.0391
2028	MHDT	Gasoline	6,113	1,237	0.2023
2028	HHDT	Diesel	28,701	5,682	0.1980

Abbreviations:
EMFAC - EMission FACtors model
HHDT - heavy heavy-duty trucks
LDA - light-duty automobile
LDT - light-duty truck
MHDT - medium heavy-duty trucks
VMT - vehicle miles traveled

APPENDIX E
OPERATIONAL INPUTS

List of Tables

Table E-1. Operational Mobile Source Assumptions - North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Total daily trips [1,2]	2,536	trips/day
Average trip length [1]	4.52	miles
Daily VMT [1,2]	11,463	miles/day

Notes:

[1] Obtained from the July 2025 El Dorado Costco CEQA Analysis report prepared by Kittelson & Associates, Inc.

[2] For purposes of this analysis the daily trip and VMT assumptions were used for both weekdays and weekends.

Abbreviations:

CEQA - California Environmental Quality Act

VMT - vehicle miles travelled

Table E-2. Reactive Organic Gas Emission Factor for Consumer Product Usage in El Dorado County for Calendar Year 2028

El Dorado Hills Costco Project
El Dorado Hills, California

Countywide ROG Inventory for Consumer Product Usage [1] (tons/day)	County Population [2]	Total Building Square Footage in the County [3] (sqft)	ROG Emission Factors for Consumer Product Usage [4] (lb/sqft/day)
1.354	188,380	220,388,409	1.23E-05

Notes:

[1] ROG consumer products inventory for El Dorado County in calendar year 2028 was obtained from the California Emissions Projection Analysis Model, CEPAM2019v1.04. Available at: https://ww2.arb.ca.gov/applications/cepam2019v1-04-standard-emission-tool. Accessed: May 2025.

[2] Population estimates for El Dorado County in 2020 and 2028 were obtained from the State of California Department of Finance website. Available at: https://dof.ca.gov/forecasting/demographics/projections/. Accessed: May 2025.

[3] Total building square footage in 2028 was estimated as the product of the countywide building square footage per person in 2020 multiplied by the population projection for El Dorado County in calendar Year 2028.

[4] The consumer product ROG emission factor for consumer product usage is calculated as the ratio of the countywide ROG inventory for consumer product usage to the total building square footage in the county.

[5] Total building square footage in El Dorado County for 2020 was obtained from FEMA HAZUS-MH software (version 7.0). Available at: https://msc.fema.gov/portal/resources/hazus. Accessed: May 2025.

Constants:

El Dorado County Population [2] in Calendar Year 2020:	191,522
Total Building Square Footage [5] in El Dorado County in 2020:	224,064,279

Conversion Factor:

2000 lb/ton

Abbreviations:

FEMA - Federal Emergency Management Agency
lb - pound
ROG - reactive organic compounds
sqft - square foot

 Ramboll

Table E-3. Utility GHG Emission Factor Associated with Renewable Portfolio Standard
El Dorado Hills Costco Project
El Dorado Hills, California

Energy Generated (MWh)

	2020	2021	2022	Average	Units
CO_2 Intensity Factor per Total Energy Generated [1]	160	98	56	105	lbs CO_2/MWh generated
% of Total Energy From Renewables [2]	35.1%	47.7%	38.5%	40.4%	
CO_2 Intensity Factor per Total Non-Renewable Energy [3]	247	187	91	176	lbs CO_2/MWh generated

Calculated Intensity Factors for Total Energy Delivered [4]

2027 RPS (52% Renewable Energy)	118.3	89.9	43.7	84.3	lbs CO_2/MWh generated
2028	111.8	84.9	41.3	79.7	lbs CO_2/MWh generated
2030 RPS (60% Renewable Energy)	98.6	75.0	36.4	70.3	lbs CO_2/MWh generated

Notes:

[1] Obtained from PG&E's 2024 Corporate Sustainability Reports. Note that 2023 values are not provided because they are subject to regulatory approval and verification at the time of this report preparation.

[2] Obtained from PG&E's 2021, 2022, and 2023 Corporate Sustainability Reports.

[3] The emissions metric presented here is calculated based on the total CO_2 emissions for total energy generated divided by the energy generated from non-renewable sources.

[4] The intensity factors for default RPS assumption are estimated multiplying the maximum allowable percentage of non-renewable energy per RPS and the CO_2 intensity factor per total non-renewable energy calculated above. The RPS minimum targets for renewable energy delivered are 52% for 2027 and 60% for 2030 per Senate Bill 100. The estimate provided here assumes that renewable energy sources do not result in any CO_2 emissions.

Abbreviations:

CO_2 - carbon dioxide
GHG - greenhouse gases
lbs - pounds
MWh - megawatt-hour
PG&E - Pacific Gas and Electric
RPS - Renewable Portfolio Standards

References:

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PG&E 2022 Corporate Sustainability Report. Available at: https://www.pgecorp.com/content/dam/pgecorp/language-masters/en/sustainability/corporate-responsibility-sustainability/reports/2022/assets/PGE_CSR_2022.pdf. Accessed: April 2025.

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APPENDIX F
OPERATIONAL ENERGY CALCULATIONS

List of Tables

Table F-1. Operational Electricity Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Project Land Use	Project Electricity Demand [1] (kWh/yr)
Regional Shopping Center	1,202,266
Parking Lot	405,244
Total	**1,607,510**

Notes:
[1] Obtained from CalEEMod model run for the North Site Remainder Area shown in **Appendix A**.

Abbreviations:
CalEEMod - CALifornia Emissions Estimator MODel
kWh - kilowatt hours
yr - year

Table F-2. Operational Natural Gas Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Project Land Use	Project Natural Gas Demand [1] (kBTU/yr)
Regional Shopping Center	1,190,333
Parking Lot	0
Total	**1,190,333**

Notes:

[1] Obtained from CalEEMod model run for the North Site Remainder Area shown in **Appendix A**.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

kBTU - kilo British Thermal Unit

yr - year

Table F-3. CalEEMod Default Fleet Mix for El Dorado County in Calendar Year 2028
El Dorado Hills Costco Project
El Dorado Hills, California

Vehicle Category	CalEEMod Default Fleet Mix [1]
LDA	38.10%
LDT1	4.98%
LDT2	26.68%
MDV	17.26%
LHDT1	5.18%
LHDT2	1.23%
MHDT	1.61%
HHDT	0.41%
OBUS	0.07%
UBUS	0.04%
MCY	3.53%
SBUS	0.13%
MH	0.78%

Notes:

[1] CalEEMod default for El Dorado (MC) sub-area, calendar year 2028.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
HHDT - Heavy heavy-duty truck
LDA - light duty automobiles
LDT - light-duty trucks
LHDT - light heavy-duty trucks
MC - Mountain County
MCY - motorcycles
MDV - medium-duty vehicle
MH - motor homes
MHDT - medium heavy-duty trucks
OBUS - other buses
SBUS - school buses
UBUS - urban buses

Table F-4. Operational Vehicle Fleet Mix for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Vehicle Category	Fuel Type	EMFAC VMT Output [1] (miles/day)	Fleet Mix [2]
LDA	Gasoline	1,633,311	33.29%
LDA	Plug-in Hybrid	69,525	1.42%
LDA	Electricity	161,238	3.29%
LDA	Diesel	4,739	0.10%
LDT1	Gasoline	175,495	4.93%
LDT1	Plug-in Hybrid	815	0.02%
LDT1	Electricity	996	0.03%
LDT1	Diesel	8	0.00%
LDT2	Gasoline	1,170,851	25.97%
LDT2	Plug-in Hybrid	16,120	0.36%
LDT2	Electricity	11,154	0.25%
LDT2	Diesel	4,900	0.11%
MDV	Gasoline	660,798	16.38%
MDV	Plug-in Hybrid	9,758	0.24%
MDV	Electricity	11,461	0.28%
MDV	Diesel	14,415	0.36%
LHDT1	Gasoline	96,642	2.52%
LHDT1	Diesel	96,871	2.53%
LHDT1	Electricity	4,871	0.13%
LHDT2	Gasoline	7,595	0.19%
LHDT2	Diesel	40,102	1.01%
LHDT2	Electricity	1,065	0.03%
MHDT	Gasoline	6,113	0.12%
MHDT	Diesel	73,139	1.43%
MHDT	Electricity	3,444	0.07%
HHDT	Gasoline	17	0.00%
HHDT	Diesel	28,701	0.39%
HHDT	Electricity	1,232	0.02%
HHDT	Natural Gas	132	0.00%
OBUS	Gasoline	992	0.02%
OBUS	Diesel	3,160	0.05%
OBUS	Electricity	53	0.00%
OBUS	Natural Gas	38	0.00%
UBUS	Gasoline	1,054	0.01%
UBUS	Diesel	3,484	0.03%
UBUS	Electricity	208	0.00%
MCY	Gasoline	19,584	3.53%
SBUS	Gasoline	681	0.02%
SBUS	Diesel	3,110	0.11%
SBUS	Electricity	112	0.00%
MH	Gasoline	4,455	0.47%
MH	Diesel	2,891	0.31%

Notes:

[1] Default EMFAC2021 output for the El Dorado (MC) sub-area in calendar year 2028.

[2] The fleet mix for the vehicles incorporates the CalEEMod default fleet mix for El Dorado (MC) sub-area, calendar year 2028, weighted by the EMFAC VMT by fuel type.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
EMFAC - EMission FACtors model
HHDT - Heavy heavy-duty truck
LDA - light duty automobiles
LDT - light-duty trucks
LHDT - light heavy-duty trucks
MC - Mountain County
MCY - motorcycles
MDV - medium-duty vehicle
MH - motor homes
MHDT - medium heavy-duty trucks
OBUS - other buses
SBUS - school buses
UBUS - urban buses
VMT - vehicle miles traveled

Table F-5. Operational Mobile Source Gasoline Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Mobile Source Category	Mobile Source Activity [1] (miles/yr)	Mobile Source Activity Associated with Gasoline Combustion [2] (miles/yr)	Gasoline Consumption [3] (gallons/yr)
Gasoline Vehicles	3,658,816	3,658,816	144,096
Plug in Hybrid Vehicles	85,324	38,323	1,372

Constants:

Average fuel efficiency of gasoline vehicles in 2028 [4]	25 miles per gallon
Average fuel efficiency of plug-in hybrid electric vehicles in 2028 [4]	28 miles per gallon

Notes:

[1] The annual vehicle miles travelled by operational mobile sources (obtained from the CalEEMod model run in **Appendix A**) was apportioned into gasoline and plug-in-hybrid vehicle technology categories based on the operational vehicle fleet mix shown in **Table F-4.**

[2] The vehicle miles travelled associated with gasoline combustion for each vehicle technology category was estimated based on EMFAC default assumptions for gasoline and plug-in hybrid vehicles operating in El Dorado (MC) sub-area in calendar year 2028.

[3] Gasoline consumption of vehicles are estimated as a ratio of the vehicle miles traveled associated with gasoline combustion for each vehicle technology category and its average fuel efficiency in miles per gallon.

[4] The average fuel efficiency for each gasoline vehicle technology category operating in for El Dorado (MC) sub-area in calendar year 2028 is obtained from EMFAC2021.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

EMFAC - EMission FACtors model

MC - Mountain County

yr - year

Table F-6. Operational Mobile Source Natural Gas Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Mobile Source Category	Mobile Source Activity [1] (miles/yr)	Natural Gas Consumption [2] (kBtu/yr)
Natural Gas Vehicles	102	2,580

Constants:

Average fuel efficiency of natural gas vehicles [3] 5.73 miles per diesel equivalent gallon

Conversion Factors:[4,5]

139.3 scf of CNG per diesel equivalent gallon
1.039 kBtu per cubic foot of NG

Notes:

[1] The annual vehicle miles travelled by operational mobile sources (obtained from the CalEEMod model run in **Appendix A**) was apportioned into natural gas vehicle technology based on the operational vehicle fleet mix shown in **Table F-4**.

[2] Fuel consumption for natural gas vehicles is estimated as a ratio of vehicle miles traveled to the average fuel efficiency of natural gas vehicles.

[3] The average fuel efficiency for natural gas vehicles operating in El Dorado (MC) sub-area in calendar year 2028 is obtained from EMFAC2021.

[4] Scf of CNG per diesel equivalent gallon was obtained from the Alternative Fuels Data Center Gasoline and Diesel Gallon Equivalency Methodology. Available at: https://afdc.energy.gov/fuels/equivalency-methodology. Accessed: June 2025.

[5] kBtu per cubic foot of NG was obtained from the NRG Energy Conversion Calculator. Available at: https://www.nrg.com/resources/energy-tools/energy-conversion-calculator.html. Accessed: June 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CNG - compressed natural gas
EMFAC - EMission FACtors model
kBtu - kilo-British thermal unit
MC - Mountain County
NG - natural gas
scf - standard cubic feet
yr - year

Table F-7. Operational Mobile Source Diesel Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Mobile Source Category	Mobile Source Activity [1] (miles/yr)	Diesel Consumption [2] (gallons/yr)
Diesel Vehicles	268,259	24,867

Constants:

Average fuel efficiency of diesel vehicles [3] 10.79 miles per gallon

Notes:

[1] The annual vehicle miles travelled by operational mobile sources (obtained from the CalEEMod model run in **Appendix A**) was apportioned into diesel vehicle technology based on the operational vehicle fleet mix shown in **Table F-4**.

[2] Fuel consumption for diesel vehicles is estimated as a ratio of vehicle miles traveled to the average fuel efficiency of diesel vehicles.

[3] The average fuel efficiency for diesel vehicles operating in El Dorado (MC) sub-area in calendar year 2028 is obtained from EMFAC2021.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

EMFAC - EMission FACtors model

MC - Mountain County

yr - year

Table F-8. Operational Mobile Source Electricity Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Mobile Source Category	Mobile Source Activity [1] (miles/yr)	Mobile Source Activity Associated with Electricity Consumption [2] (electric miles/yr)	Electricity Consumption [3] (kWh/yr)
Battery Electric Vehicles	171,129	171,129	51,686
Plug in Hybrid Vehicles	85,324	47,000	14,195

Constants:

Average fuel efficiency for plug-in hybrid electric vehicles in 2028 [4]	3.31	miles per kWh
Average fuel efficiency for electric vehicles in 2028 [4]	2.39	miles per kWh

Notes:

[1] The annual vehicle miles travelled by operational mobile sources (obtained from the CalEEMod model run in **Appendix A**) was apportioned into battery electric and plug-in-hybrid vehicle technology categories based on the operational vehicle fleet mix shown in **Table F-4**.

[2] The fraction of electric vehicle miles traveled by plug-in hybrid vehicles was estimated based on EMFAC default assumptions for plug-in hybrid vehicles operating in El Dorado (MC) sub-area in calendar year 2028.

[3] The electricity consumption is estimated as the ratio of the electric miles traveled to the average fuel efficiency of each vehicle technology in miles per kilowatt-hour.

[4] The average fuel efficiencies of battery electric and plug-in hybrid vehicles operating in El Dorado (MC) sub-area in calendar year 2028 are obtained from EMFAC2021.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel

EMFAC - EMission FACtors model

GDF - gasoline dispensing facility

kWh - kilowatt-hour

MC - Mountain County

yr - year

Table F-9. Operational Landscape Equipment Gasoline Consumption for the North Site Remainder Area
El Dorado Hills Costco Project
El Dorado Hills, California

Area Source Category	CO_2 Emissions [1] (MT/yr)	Gasoline Consumption [2] (gallons/yr)
Landscape equipment	2.02	230

Conversion Factors:

8.78	kg CO_2/gallon gasoline consumed in combustion engines [3]
1,000	kg CO_2/MT CO_2

Notes:

[1] Exhaust CO_2 emissions from landscaping equipment are obtained from the CalEEMod model run in **Appendix A**.

[2] Gasoline consumption of landscaping equipment is estimated as a ratio of the CO_2 emissions from these equipment to the CO_2 emission factor per gallon of gasoline consumed.

[3] Obtained from the USEPA GHG Emission Factors Hub. Available at: https://www.epa.gov/system/files/documents/2025-01/ghg-emission-factors-hub-2025.pdf. Accessed: June 2025.

Abbreviations:

CalEEMod - CALifornia Emissions Estimator MODel
CO_2 - carbon dioxide
GHG - greenhouse gas
kg - kilograms
MT - metric ton
USEPA - United States Environmental Protection Agency
yr - year