El Camino Specific Plan Amendment

ENERGY ANALYSIS

CITY OF SAN JUAN CAPISTRANO

PREPARED BY:

Haseeb Qureshi
hqureshi@urbanxroads.com

Alyssa Barnett
abarnett@urbanxroads.com

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LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	El Camino Specific Plan Amendment Air Quality Impact Analysis
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of San Juan Capistrano
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
ECSP	El Camino Specific Plan
ECSPA	El Camino Specific Plan Amendment
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
HTC	Historic Town Center
I-5	Interstate 5
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks

MCY	Motorcycles
MDV	Medium Duty Trucks
MH	Motorhome
MHDT	Medium-Heavy Duty Trucks
MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
OBUS	Other Bus
PG&E	Pacific Gas and Electric
Project	El Camino Specific Plan Amendment
PV	Photovoltaic
SBUS	School Buses
SCAB	South Coast Air Basin
SDAB	San Diego Air Basin
SDG&E	San Diego Gas & Electric
SF	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21st Century
U.S.	United States
UBUS	Urban Bus
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *El Camino Specific Plan Amendment Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the *CEQA Guidelines* (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 6 of this report.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed El Camino Specific Plan Amendment Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of San Juan Capistrano (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The Project site encompasses approximately 5.61 acres of land in the downtown area of the City of San Juan Capistrano, as shown on Exhibit 1-A. The Forster & El Camino Mixed Use Project portion of the Project site is located at 31878 Camino Capistrano on a 3.15-acre property (Assessor's Parcel Numbers: 124-160-37, -51, and -52). The central portion of the Project site includes the Blas Aguilar Adobe and Historic Town Center (HTC) Park (Assessor's Parcel Numbers: 124-160-08, -09, -10, -11, -12, and -27). The Project site is located south of Old Mission Road, east of El Camino Real, and both west and north of Del Obispo Street. Local access to the Project site would be provided by Forster Street and Camino Capistrano. Regional access to the site would be provided by Interstate 5 (I-5), which is located approximately 568 feet northwest of the Project site.

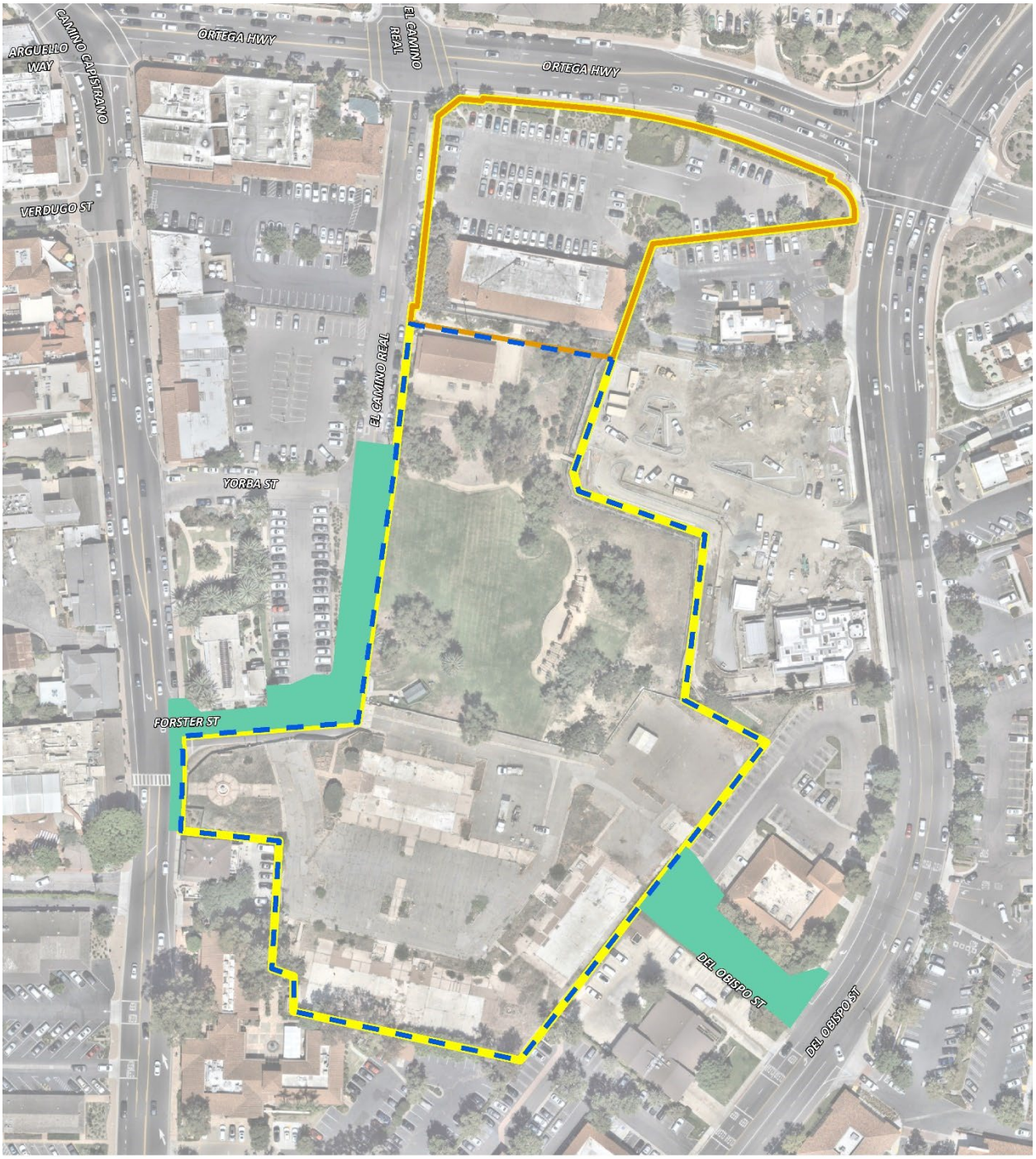
1.2 ADOPTED EL CAMINO SPECIFIC PLAN

The El Camino Specific Plan (ECSP), adopted in August 2022, includes the recently approved mixed use developed located at the former Downtown Playhouse site. The ECSP site is a 1.68± acre single parcel of land that is generally located south of Old Mission Road, east of El Camino Real. The approved project consists of the development of a 27,457 square-foot (SF) mixed use development in place of the El Camino Real Downtown Playhouse and public parking lot. The Project's retail/commercial space consists of 7,391 SF of retail, of which 2,607 SF is located on the ground floor of the parking structure, and 7,586 SF of restaurant space, plus 5,436 SF of medical office use and 7,044 SF of office space. Parking will be provided via a total of 216 parking spaces; it is expected that this parking structure would also serve as parking to the Project's Performing Arts Center component.

1.3 PROPOSED EL CAMINO SPECIFIC PLAN AMENDMENT

With the Project, the ECSP, which now totals 1.68± acres, would be amended to encompass eight [8] parcels of land with a combined total of approximately 7.33± acres of land. Approximately 3.15± acres of land on the southern portion of the Project site would be redeveloped with the Forster & El Camino Mixed-Use Development. The middle 2.5± acres of the Project include a 1.0± acre HTC park and a 1.5± acre site that is set aside for development of a Performing Arts Center. Although no development will occur on the 1.0-acre Blas Aguilar Adobe Museum property, it is also proposed to be part of the expanded El Camino Specific Plan Amendment (ECSPA).

EXHIBIT 1-A: LOCATION MAP



The proposed Forster & El Camino mixed-use component of the Project as shown on Exhibit 1-B, consists of 95 multi-family apartment homes with 50 one-bedroom units, and 45 two-bedroom units, a 3,500 SF residential clubhouse/leasing office, and a one building that would house a 4,294 SF quality restaurant and a one-story, 3,100 SF health/fitness club. This Project component will provide a total of 175 parking spaces, comprised of 83 structured spaces in the garage, and 92 surface spaces on site. The middle 2.5± acres of the Project include a 1.0± acre HTC park, and a 1.5±-acre site that is set aside for development of a 49,097 SF performing arts center with a capacity of 352 seats in the Main Auditorium and a capacity of 100 seats in the "Black Box" theater. This Project component is expected to share parking with the 216-space parking structure that is planned as a part of the adopted ECSP development.

EXHIBIT 1-B: FORSTER & EL CAMINO MIXED USE PROJECT SITE PLAN

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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2021, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and included (2):

- As of 2021, approximately 7,359 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2021, approximately 605 million barrels of petroleum
- As of 2021, approximately 2,101 billion cubic feet of natural gas
- As of 2021, approximately 1 million short tons of coal

According to the EIA, in 2022 the U.S. petroleum consumption comprised about 90% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels (3). In 2022, about 251,923 million gallons (or about 5.99 million barrels) of finished petroleum products were consumed in the U.S., an average of about 690 million gallons per day (or about 16.4 million barrels per day) (4). In 2021, California consumed approximately 12,157 million gallons in motor gasoline (33.31 million per day) and approximately 3,541 million gallons of diesel fuel (9.7 million per day) (5).

The most recent data provided by the EIA for energy use in California is reported from 2021 and provided by demand sectors as follows:

- Approximately 37.8% transportation sector
- Approximately 23.2% industrial sector
- Approximately 20.0% residential sector
- Approximately 19.0% commercial sector (6)

According to the EIA, California used approximately 247,250 gigawatt hours of electricity in 2021 (7). By sector in 2021, residential uses utilized 36.5% of the state's electricity, followed by 43.9% for commercial uses, 19.2% for industrial uses, and 0.3% for transportation. Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building (7).

According to the EIA, California used approximately 200,871 million therms of natural gas in 2021 (8). In 2021 (the most recent year for which data is available), by sector, industrial uses utilized 33% of the state's natural gas, followed by 30% used as fuel in the electric power sector, 21% from residential, 11% from commercial, 1% from transportation uses and the remaining 3% was utilized for the operations, processing and production of natural gas itself (8). While the supply of natural gas in the United States and production in the lower 48 states has increased greatly since 2008, California produces little, and imports 90% of its supply of natural gas (8).

In 2022, total system electric generation for California was 287,220 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 203,257 GWh which accounted for approximately 71% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (17%) (9). Natural gas is the main source for electricity generation at 47.46% of the total in-state electric generation system power as shown in Table 2-1.

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (10):

- In 2022, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2022, the state ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states.
- In 2020, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all but three other states.
- In 2022, renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49% of California's in-state electricity generation. Natural gas fueled another 42%. Nuclear power supplied almost all the rest.
- In 2022, California was the fourth-largest electricity producer in the nation. The state was also the nation's third-largest electricity consumer, and additional needed electricity supplies came from out-of-state generators.

As indicated below, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

TABLE 2-1: TOTAL ELECRICITY SYSTEM POWER (CALIFORNIA 2022)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	273	0.13%	181	5,716	5,897	6,170	2.15%
Natural Gas	96,457	47.46%	44	7,994	8,038	104,495	36.38%
Oil	65	0.03%	-	-	-	65	0.2%
Other (Waste Heat/Petroleum Coke)	315	0.15%	-	-	-	315	0.11%
Unspecified	-	0.0%	12,485	7,943	20,428	20,428	7.11%
Total Thermal and Unspecified	**97,110**	**47.78%**	**12,710**	**21,653**	**34,363**	**121,473**	**45.77%**
Nuclear	17,627	8.67%	397	8,342	8,739	26,366	9.18%
Large Hydro	14,607	7.19%	10,803	1,118	11,921	26,528	9.24%
Biomass	5,366	2.64%	771	25	797	6,162	2.15%
Geothermal	11,110	5.47%	253	2,048	2,301	13,412	4.67%
Small Hydro	3,005	1.48%	211	13	225	3,230	1.12%
Solar	40,494	19.92%	231	8,225	8,456	48,950	17.04%
Wind	13,938	6.86%	8,804	8,357	17,161	31,099	10.83%
Total Non-GHG and Renewables	**106,147**	**52.22%**	**21,471**	**28,129**	**49,599**	**155,747**	**54.23%**
SYSTEM TOTALS	***203,257***	***100.0%***	***34,180***	***49,782***	***83,962***	***287,220***	***100.0%***

Source: CECs 2022 Total System Electric Generation

2.2 ELECTRICITY

The usage associated with electricity use was calculated using CalEEMod Version 2022.1. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California Independent Service Operator (ISO) studies revealed the extent to which the Mojave Desert Air Basin (MDAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (11). Similarly, the subsequent 2022 IEPR's provides information and policy recommendations on advancing a clean, reliable, and affordable energy system.

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California ISO is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (12).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by San Diego Gas & Electric (SDG&E). SDG&E provides electric power to more than 3.7 million people through 1.49 million electric meters and 905,000 natural gas meters in San Diego and southern Orange counties. Based on SDG&E's 2022 Power Content Label Mix, SDG&E derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SDG&E also purchases from independent power producers and utilities, including out-of-state suppliers (13).

Table 2-2, SDG&E's specific proportional shares of electricity sources in 2022. As indicated in Table 2-2, the 2022 SDG&E Power Mix has renewable energy at 35.8% of the overall energy

resources. Geothermal resources are at 4.7%, wind power is at 10.8%, large hydroelectric sources are at 9.2%, solar energy is at 17.0%, and coal is at 2.1% (14).

TABLE 2-2: SDG&E 2022 POWER CONTENT MIX

Energy Resources	2022 SDG&E Power Mix
Eligible Renewable	**35.8%**
Biomass & Waste	2.1%
Geothermal	4.7%
Eligible Hydroelectric	1.%
Solar	17.0%
Wind	10.8%
Coal	**2.1%**
Large Hydroelectric	**9.2%**
Natural Gas	**36.4%**
Nuclear	**9.2%**
Other	**0.1%**
Unspecified Sources of power*	7.1%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers*

consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the CPUC may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field.

These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm

backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (15)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the State in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (6), and those vehicles consume an estimated 17.2 billion gallons of fuel each year[1]. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

[1] Fuel consumptions estimated utilizing information from EMFAC2021.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (6). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 8% of the nation's total consumption. The State is the largest U.S. consumer of motor gasoline and jet fuel, and 83% of the petroleum consumed in California is used in the transportation sector (16).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2021, about 33% of the natural gas delivered to consumers went to the State's industrial sector, and about 31% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the State's utility-scale electricity generation in 2021. The residential sector, where three-fifths of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (16).

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the U.S. Department of Transportation, the U.S. Department of Energy, and the U.S. Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. The TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. The TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. The TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems (ITS), to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2022 IEPR was adopted February 2023, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2022 IEPR introduces a new

framework for embedding equity and environmental justice at the CEC and the California Energy Planning Library which allows for easier access to energy data and analytics for a wide range of users. Additionally, energy reliability, western electricity integration, gasoline cost factors and price spikes, the role of hydrogen in California's clean energy future, fossil gas transition and distributed energy resources are topics discussed within the 2022 IEPR (17).

3.2.2 State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The State Energy Plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 California Code Title 24, Part 6, Energy Efficiency Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023[2]. The Project would be required to comply with the applicable standards in place at the time plan check submittals were made in 2022 (18).

3.2.4 AB 1493 Pavley Regulations and Fuel Efficiency Standards

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

[2] The 2022 California Green Building Standard Code will be published July 1, 2022.

3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (19).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electricity transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

3.2.7 EXECUTIVE ORDER N-79-20 AND ADVANCED CLEAN CARS II

On August 25, 2022, CARB approved the Advanced Clean Cars II rule, which codifies the goals set out in Executive Order N-79-20 and establishes a year-by-year roadmap such that by 2035, 100% of new cars and light trucks sold in California will be zero-emission vehicles. Under this regulation, automakers are required to accelerate deliveries of zero-emission light-duty vehicles, beginning with model year 2026. CARB estimates that between 2026 and 2040, the regulation would reduce GHG emissions by a cumulative 395 million metric tons, equivalent to reducing petroleum use by 915 million barrels.

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

4.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (20), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (1), this report analyzes the Project's anticipated energy use during construction and operations to determine if the Project would:

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

4.2 METHODOLOGY

Information from the CalEEMod Version 2022.1.1.12 outputs for the *El Camino Specific Plan Amendment Air Quality Impact Analysis* (AQIA) (21) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

In May 2023, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2022.1.1.21. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (22). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendices 4.1 and 4.2.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMissions FACtor model (EMFAC2021) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (23). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of analysis, the 2026 through 2028 analysis years were utilized to determine the average vehicle

fuel economy used throughout the duration of the Project. Outputs from the EMFAC2021 model run is provided in Appendix 4.3.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in June 2025 and would last through September 2027 (21). The construction schedule utilized in the analysis, shown in Table 4-1, represent a "worst-case" analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (1).

TABLE 4-1: CONSTRUCTION DURATION

Area	Construction Activity	Start Date	End Date	Days
Forster & El Camino Mixed Use Project	Demolition	6/10/2025	7/10/2025	23
	Grading	7/11/2025	8/30/2025	36
	Grading/Off-Site Improvements	8/31/2025	9/30/2025	22
	Building Construction	8/30/2025	12/3/2026	329
	Architectural Coating	8/20/2026	1/3/2027	97
	Paving	10/27/2026	2/20/2027	84
Performing Arts Center	Grading	12/14/2025	1/13/2026	22
	Grading/Off-Site Improvements	1/14/2026	2/2/2026	14
	Building Construction	2/3/2026	7/2/2027	369
	Architectural Coating	12/19/2026	8/21/2027	175
	Paving	7/2/2027	9/5/2027	46

PROJECT CONSTRUCTION POWER COST

The *2023 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of $2.50, which was used to calculate the Project's total construction power cost (24).

As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $16,957.32.

TABLE 4-2: CONSTRUCTION POWER COST

Area	Land Use	Power Cost (per 1,000 SF)	Size (1,000 SF)	Construction Duration (months)	Power Cost
Forster & El Camino Mixed Use Project	Multi-family Housing (Low Rise)	$2.50	30.572	20	$1,528.60
	Fitness/Health Club		3.100		$155.00
	Fine Dining		4.294		$214.70
	Landscape		22.933		$1,146.65
	Parking Lot		55.759		$2,787.95
	Enclosed Parking		88.959		$4,447.95
	Other Asphalt Surfaces		20.556		$1,027.81
CONSTRUCTION POWER COST					***$11,308.66***
Performing Arts Center	Performing Arts Center	$2.50	49.097	21	$2,577.59
	Other Asphalt Surfaces		58.496		$3,071.06
CONSTRUCTION POWER COST					***$5,648.65***
TOTAL CONSTRUCTION POWER COST					***$16,957.32***

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-3) by the utility provider cost per kilowatt hour (kWh) of electricity.

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SDG&E's general service rate schedule are used to determine the Project's electrical usage. As of January 1, 2023, SDG&E's general service rate is $0.46 per kilowatt hours (kWh) of electricity for general services and $0.51 for residential services (25). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 36,868 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE (1 OF 2)

Area	Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Forster & El Camino Mixed Use Project	Multi-family Housing (Low Rise)	$0.51	2,991
	Fitness/Health Club	$0.46	340
	Fine Dining		471
	Landscape		2,518
	Parking Lot		6,121
	Enclosed Parking		9,766
	Other Asphalt Surfaces		2,257
CONSTRUCTION ELECTRICITY USAGE			***24,465***
Performing Arts Center	Performing Arts Center	$0.46	5,660
	Other Asphalt Surfaces		6,743
CONSTRUCTION ELECTRICITY USAGE			***12,403***
TOTAL CONSTRUCTION ELECTRICITY USAGE			***36,868***

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 would operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)

Area	Construction Activity	Equipment	Quantity	Hours Per Day
Forster & El Camino Mixed Use Project	Demolition	Rubber Tired Dozers	2	8
		Concrete/Industrial Saws	1	8
		Excavators	3	8
	Grading	Graders	1	8
		Excavators	1	8
		Rubber Tired Dozers	1	8
		Crawler Tractors	3	8

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)

Area	Construction Activity	Equipment	Quantity	Hours Per Day
Forster & El Camino Mixed Use Project	Grading/Off-Site Improvements	Graders	1	8
		Excavators	1	8
		Rubber Tired Dozers	1	8
		Crawler Tractors	3	8
	Building Construction	Cranes	1	8
		Forklifts	3	8
		Generator Sets	1	8
		Welders	1	8
		Tractors/Loaders/Backhoes	3	8
	Paving	Tractors/Loaders/Backhoes	1	8
		Cement and Mortar Mixers	2	8
		Pavers	1	8
		Paving Equipment	2	8
		Rollers	2	8
	Architectural Coating	Air Compressors	1	8
Performing Arts Center	Grading	Graders	1	8
		Rubber Tired Dozers	1	8
		Crawler Tractors	2	8
	Grading/Off-Site Improvements	Graders	1	8
		Rubber Tired Dozers	1	8
		Crawler Tractors	2	8
	Building Construction	Cranes	1	8
		Forklifts	2	8
		Generator Sets	1	8
		Welders	3	8
		Tractors/Loaders/Backhoes	1	8
	Paving	Tractors/Loaders/Backhoes	1	8
		Cement and Mortar Mixers	1	8
		Pavers	1	8
		Paving Equipment	1	8
		Rollers	2	8
	Architectural Coating	Air Compressors	1	8

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-7. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (26). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered, which is consistent with industry standards.

Diesel fuel would be supplied by existing residential and commercial fuel providers serving the Project area and region[3]. As presented in Table 4-5, Project construction activities would consume an estimated 105,658 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose.

[3] Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES (1 OF 3)

Area	Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	Demolition	23	Rubber Tired Dozers	367	2	8	0.40	2,349	2,920
			Concrete/Industrial Saws	33	1	8	0.73	193	240
			Excavators	36	3	8	0.38	328	408
	Grading	36	Graders	148	1	8	0.41	485	945
			Excavators	36	1	8	0.38	109	213
			Rubber Tired Dozers	367	1	8	0.40	1,174	2,285
			Crawler Tractors	87	3	8	0.43	898	1,747
	Grading/Off-Site Improvements	22	Graders	148	1	8	0.41	485	577
			Excavators	36	1	8	0.38	109	130
			Rubber Tired Dozers	367	1	8	0.40	1,174	1,397
			Crawler Tractors	87	3	8	0.43	898	1,068
	Building Construction	329	Cranes	367	1	8	0.29	851	15,142
			Forklifts	82	3	8	0.20	394	7,000
			Generator Sets	14	1	8	0.74	83	1,474
			Welders	46	1	8	0.45	166	2,945
			Tractors/Loaders/Backho	84	3	8	0.37	746	13,265

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES (2 OF 3)

Area	Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	Paving	84	Tractors/Loaders/Backho	84	1	8	0.37	249	1,129
			Cement and Mortar	10	2	8	0.56	90	407
			Pavers	81	1	8	0.42	272	1,236
			Paving Equipment	89	2	8	0.36	513	2,328
			Rollers	36	2	8	0.38	219	994
	Architectural Coating	97	Air Compressors	37	1	8	0.48	142	745
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)									***58,593***
Performing Arts Center	Grading	22	Graders	148	1	8	0.41	485	577
			Rubber Tired Dozers	367	1	8	0.40	1,174	1,397
			Crawler Tractors	87	2	8	0.43	599	712
	Grading/Off-Site Improvements	14	Graders	148	1	8	0.41	485	367
			Rubber Tired Dozers	367	1	8	0.40	1,174	889
			Crawler Tractors	87	2	8	0.43	599	453
	Building Construction	369	Cranes	367	1	8	0.29	851	16,983
			Forklifts	82	2	8	0.20	262	5,234
			Generator Sets	14	1	8	0.74	83	1,653
			Tractors/Loaders/Backho	84	1	8	0.37	249	4,959
			Welders	46	3	8	0.45	497	9,909

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES (2 OF 3)

Area	Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Performing Arts Center	Paving	46	Tractors/Loaders/Backho	84	1	8	0.37	249	618
			Pavers	81	1	8	0.42	272	677
			Paving Equipment	89	1	8	0.36	256	637
			Rollers	36	2	8	0.38	219	544
			Cement and Mortar	10	1	8	0.56	45	111
	Architectural Coating	175	Air Compressors	37	1	8	0.48	142	1,344
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)									***47,065***
TOTAL CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)									***105,658***

4.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul truck commuting to and from the site. The number of workers, vendor, and hauling trips are presented below in Table 4-6. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Area	Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Forster & El Camino Mixed Use Project	Demolition	15	1	131
	Grading	15	2	0
	Grading/Off-Site Improvements	15	1	0
	Building Construction	85	14	0
	Paving	17	0	0
	Architectural Coating	20	0	0
Performing Arts Center	Grading	10	1	23
	Grading/Off-Site Improvements	10	1	0
	Building Construction	21	6	0
	Paving	4	1	0
	Architectural Coating	15	0	0

4.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips (personal vehicles used by workers commuting to the Project from home) would generate an estimated 809,579 VMT during Project construction (21). Based on CalEEMod methodology, it is assumed that 50% of all construction worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1[4]), and 25% are from light-duty-trucks (LDT2[5]). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (23). EMFAC2021 was

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

run for the LDA, LDT1, and LDT2 vehicle class within the Orange (SC) for the years 2025 through 2027. Data from EMFAC2021 is shown in Appendix 4.3.

As shown in Table 4-7, the estimated fuel consumption resulting from Project construction worker trips is 27,237 gallons. It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require ongoing or permanent commitment of fuel resources for this purpose.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (1 OF 4)

Area	Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	2025	LDA						
		Demolition	23	8	18.5	3,404	33.86	101
		Grading	36	8	18.5	5,328	33.86	157
		Grading/Off-Site Improvements	22	8	18.5	3,256	33.86	96
		Building Construction	88	43	18.5	70,004	33.86	2,067
		LDT1						
		Demolition	23	4	18.5	1,702	25.78	66
		Grading	36	4	18.5	2,664	25.78	103
		Grading/Off-Site Improvements	22	4	18.5	1,628	25.78	63
		Building Construction	88	22	18.5	35,816	25.78	1,390
		LDT2						
		Demolition	23	4	18.5	1,702	25.43	67
		Grading	36	4	18.5	2,664	25.43	105
		Grading/Off-Site Improvements	22	4	18.5	1,628	25.43	64
		Building Construction	88	22	18.5	35,816	25.43	1,409
	2026	LDA						
		Building Construction	241	43	18.5	191,716	34.81	5,508
		Paving	48	10	18.5	8,880	34.81	255
		Architectural Coating	96	9	18.5	15,984	34.81	459

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (2 OF 4)

Area	Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	2026	LDT1						
		Building Construction	241	22	18.5	98,087	26.28	3,732
		Paving	48	5	18.5	4,440	26.28	169
		Architectural Coating	96	5	18.5	8,880	26.28	338
		LDT2						
		Building Construction	241	22	18.5	98,087	26.07	3,762
		Paving	48	5	18.5	4,440	26.07	170
		Architectural Coating	96	5	18.5	8,880	26.07	341
	2027	LDA						
		Paving	36	10	18.5	6,660	35.67	187
		Architectural Coating	1	9	18.5	167	35.67	5
		LDT1						
		Paving	36	5	18.5	3,330	26.76	124
		Architectural Coating	1	5	18.5	93	26.76	3
		LDT2						
		Paving	36	5	18.5	3,330	26.65	125
		Architectural Coating	1	5	18.5	93	26.65	3
CONSTRUCTION WORKER FUEL CONSUMPTION								***20,870***
Performing Arts Center	2025	LDA						
		Grading	13	5	18.5	1,203	33.86	36
		LDT1						
		Grading	13	3	18.5	722	25.78	28

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (3 OF 4)

Area	Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Performing Arts Center	2025	LDT2						
		Grading	13	3	18.5	722	25.43	28
	2026	LDA						
		Grading	9	5	18.5	833	34.81	24
		Grading/Off-Site Improvements	14	5	18.5	1,295	34.81	37
		Building Construction	238	11	18.5	48,433	34.81	1,391
		Architectural Coating	9	2	18.5	333	34.81	10
		LDT1						
		Grading	9	3	18.5	500	26.28	19
		Grading/Off-Site Improvements	14	3	18.5	777	26.28	30
		Building Construction	238	6	18.5	26,418	26.28	1,005
		Architectural Coating	9	1	18.5	167	26.28	6
		LDT2						
		Grading	9	3	18.5	500	26.07	19
		Grading/Off-Site Improvements	14	3	18.5	777	26.07	30
		Building Construction	238	6	18.5	26,418	26.07	1,013
		Architectural Coating	9	1	18.5	167	26.07	6
	2027	LDA						
		Building Construction	131	11	18.5	26,659	35.67	747
		Paving	46	8	18.5	6,808	35.67	191
		Architectural Coating	166	2	18.5	6,142	35.67	172

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES (4 OF 4)

Area	Year	Construction Activity	Duration (Days)	Worker (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Performing Arts Center	2027	LDT1						
		Building Construction	131	6	18.5	14,541	26.76	543
		Paving	46	4	18.5	3,404	26.76	127
		Architectural Coating	166	1	18.5	3,071	26.76	115
		LDT2						
		Building Construction	131	6	18.5	14,541	26.65	546
		Paving	46	4	18.5	3,404	26.65	128
		Architectural Coating	166	1	18.5	3,071	26.65	115
CONSTRUCTION WORKER FUEL CONSUMPTION								***6,367***
TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION								***27,237***

4.3.6 CONSTRUCTION VENDOR AND HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) and material hauling trips would generate an estimated 99,513 VMT along area roadways during Project construction (21). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD) and 50% of all vendor trips are from heavy-heavy duty trucks (HHD). Hauling trips are assumed to be performed only by HHD trucks. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (21). Vehicle fuel efficiencies for MHDs and HHDs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHD and HHD vehicle classes within the Orange (SC) for the 2025 through 2027 calendar years. Data from EMFAC2021 is shown in Appendix 4.3.

Based on Table 4-8, it is estimated that 14,886 gallons of fuel will be consumed related to construction vendor and hauling trips during construction. It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-8: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES (1 OF 2)

Area	Year	Construction Activity	Duration (Days)	Vendor/ Hauling (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	2025	MHDT						
		Demolition	23	1	10.2	235	7.63	31
		Grading	36	1	10.2	367	7.63	48
		Grading/Off-Site Improvements	22	1	10.2	224	7.63	29
		Building Construction	88	7	10.2	6,283	7.63	823
		HHDT (Vendor)						
		Demolition	23	1	10.2	235	6.10	38
		Grading	36	1	10.2	367	6.10	60
		Grading/Off-Site Improvements	22	1	10.2	224	6.10	37
		Building Construction	88	7	10.2	6,283	6.10	1,031
		HHDT (Hauling)						
		Demolition	23	131	4.75	14,312	6.10	2,348
	2026	MHDT						
		Building Construction	241	7	10.2	17,207	7.76	2,218
		HHDT (Vendor)						
		Building Construction	241	7	10.2	17,207	6.20	2,775
CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION								***9,438***
Performing Arts Center	2025	MHDT						
		Grading	13	1	10.2	133	7.63	17
		HHDT (Vendor)						
		Grading	13	1	10.2	133	6.10	22

TABLE 4-8: CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION ESTIMATES (2 OF 2)

Area	Year	Construction Activity	Duration (Days)	Vendor/ Hauling (Trips/Day)	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Performing Arts Center	2025	HHDT (Hauling)						
		Grading	13	22	20	5,720	6.10	938
	2026	MHDT						
		Grading	9	1	10.2	92	7.76	12
		Grading/Off-Site Improvements	14	1	10.2	143	7.76	18
		Building Construction	238	3	10.2	7,283	7.76	939
		Architectural Coating	9	1	10.2	92	7.76	12
		HHDT (Vendor)						
		Grading	9	1	10.2	92	6.20	15
		Grading/Off-Site Improvements	14	1	10.2	143	6.20	23
		Building Construction	238	3	10.2	7,283	6.20	1,175
		Architectural Coating	9	1	10.2	92	6.20	15
		HHDT (Hauling)						
		Grading	9	22	20	3,960	6.20	639
	2027	MHDT						
		Building Construction	131	3	10.2	4,009	7.91	507
		Architectural Coating	166	1	10.2	1,693	7.91	214
		HHDT (Vendor)						
		Building Construction	131	3	10.2	4,009	6.32	634
		Architectural Coating	166	1	10.2	1,693	6.32	268
CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION								***5,447***
TOTAL CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION								***14,886***

4.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes 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 current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION FUEL DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (23). EMFAC2021 was run for the Orange (SC) for the 2028 calendar year. Data from EMFAC2021 is shown in Appendix 4.3.

The estimated transportation energy demands are summarized on Table 4-9. As summarized on Table 4-9 the Project would result in 4,869,581 annual VMT and 177,467 gallons per year during operations.

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (1 OF 2)

Area	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Forster & El Camino Mixed Use Project	LDA	36.55	1,012,668	27,708
	LDT1	27.29	80,881	2,964
	LDT2	27.24	489,458	17,969
	MDV	22.38	299,290	13,372
	LHDT1	17.85	57,741	3,235
	LHDT2	16.68	15,293	917
	MHDT	8.11	32,110	3,960
	HHDT	6.47	12,074	1,867
	OBUS	6.63	1,230	185
	UBUS	3.80	728	192
	MCY	42.60	45,975	1,079
	SBUS	6.70	1,985	296
	MH	5.98	7,221	1,208
FUEL CONSUMPTION (ALL VEHICLES)			***2,056,654***	***74,953***

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (2 OF 2)

Phase	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Performing Arts Center	LDA	36.55	1,385,047	37,897
	LDT1	27.29	110,622	4,054
	LDT2	27.24	669,442	24,577
	MDV	22.38	409,345	18,290
	LHDT1	17.85	78,973	4,424
	LHDT2	16.68	20,917	1,254
	MHDT	8.11	43,918	5,416
	HHDT	6.47	16,514	2,554
	OBUS	6.63	1,682	254
	UBUS	3.80	996	262
	MCY	42.60	62,880	1,476
	SBUS	6.70	2,715	405
	MH	5.98	9,877	1,652
FUEL CONSUMPTION (ALL VEHICLES)			***2,812,927***	***102,514***
TOTAL FUEL CONSUMPTION (ALL VEHICLES)			***4,869,581***	***177,467***

4.4.2 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of natural gas and electricity, which would be supplied to the Project by SoCalGas and SDG&E, respectively. Annual natural gas and electricity demands of the Project are summarized in Table 4-10.

TABLE 4-10: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY (1 OF 2)

Area	Land Use	Natural Gas Demand	Electricity Demand
		(kBTU/year)	(kWh/year)
Forster & El Camino Mixed Use Project	Multi-family Housing (Low Rise)	1,288,714	331,858
	Fitness/Health Club	125,129	27,818
	Fine Dining	482,671	152,964
	Landscape	0	0

TABLE 4-10: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY (2 OF 2)

Area	Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Forster & El Camino Mixed Use Project	Parking Lot	0	48,843
	Enclosed Parking	0	116,248
	Other Asphalt Surfaces	0	0
	PROJECT ENERGY DEMAND	***1,896,514***	***677,731***
Performing Arts Center	Performing Arts Center	1,981,764	440,568
	Other Asphalt Surfaces	0	0
	PROJECT ENERGY DEMAND	***1,981,764***	***440,568***
	TOTAL PROJECT ENERGY DEMAND	***3,878,278***	***1,118,299***

4.4.4 Operational Energy Efficiency/Conservation Measures

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code).

Enhanced Vehicle Fuel Efficiencies

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

4.5 Summary

4.5.1 Construction Energy Demands

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $16,957. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project buildout, is calculated to be approximately 36,868 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 105,658 gallons of diesel fuel during construction. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 27,237 gallons during construction. Additionally, fuel consumption from construction vendor trips (MHDs and HHDs) and hauling (HHDs) will total approximately 14,886 gallons of fuel will be consumed related to construction vendor and hauling trips construction. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2022 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (27). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 4,869,581 annual VMT and 177,467 gallons per year during operations.

Fuel would be provided by current and future residential and commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential and commercial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other residential and commercial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels,

hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at: 3,878,278 kBTU/year of natural gas and 1,118,299 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SDG&E. The Project proposes conventional residential and commercial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other residential and commercial uses of similar scale and configuration.

Implementation of the Project would increase the demand for electricity at the Project site and petroleum consumption in the region during operation. However, the electrical consumption demands of the Project during operation would conform to the state's Title 24 and to CALGreen standards, which implement conservation measures. Further, the proposed Project would not directly require the construction of new energy generation or supply facilities and providers of electricity are in compliance with regulatory requirements that assist in conservation, including requirements that electrical providers achieve state-mandated renewal energy production requirements. With compliance with Title 24 conservation standards and other regulatory requirements, the Project would not be wasteful or inefficient or unnecessarily consume energy resources during construction or operation and would result in a less-than-significant impact with respect to consumption of energy resources.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Impact Analysis

A significant impact would occur if the proposed Project would result in the inefficient, wasteful, or unnecessary use of energy.

Construction

Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with future development projects, construction-related vehicle trips would result in approximately 909,092 VMT and consume an estimated 42,122 gallons of gasoline and diesel combined during future development projects construction phases. Additionally, on-site construction equipment would consume an estimated 105,658 gallons of diesel fuel. Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations, Title 13, Sections 2449 and 2485, limit idling from both on-road and off-road diesel- powered equipment and are enforced by the ARB. Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Therefore, the construction-related impacts related to electricity and fuel consumption would be less than significant.

Operation

Electricity and Natural Gas

Operation of the proposed project would consume energy as part of building operations and transportation activities. Building operations would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, refrigeration, lighting, and electronics. Based on client provided energy use estimations, operations for the Project would result in approximately 1,118,299 kWh of electricity and 3,878,278 kBTU/year of natural gas annually.

Future development projects would be designed and constructed in accordance with the County's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a

building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards are widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Fuel

Operational energy would also be consumed during vehicle trips associated with future development projects envisioned under the proposed project. Fuel consumption would be primarily related to vehicle use by residents, visitors, and employees associated with future development projects. Based on CalEEMod energy use estimations, project-related vehicle trips would result in approximately 4.87 million VMT and consume an estimated 177,467 gallons of gasoline and diesel combined, annually (see Appendix 4.1).

The Project is located on an infill site that is surrounded by existing urban uses, the existing transportation facilities and infrastructure would provide future residents, visitors, and employees associated with the Project access to a mix of land uses in close proximity to the Project, thus further reducing fuel consumption demand. Additionally, the Project will also be providing parking and EV infrastructure that would further promote fuel efficient vehicles. For these reasons, operational-related transportation fuel consumption would not result in a significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the operational impact related to vehicle fuel consumption would be less than significant.

5.2 ENERGY IMPACT 2

Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact Analysis

A significant impact would occur if the proposed Project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Construction

As discussed in Section 5.1, above, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449 and 2485, limit idling from both on- road and off-road diesel-powered equipment and are enforced by the ARB. The proposed project would comply with these regulations. There are no policies at the local level applicable to energy conservation specific to the construction phase. Thus, it is anticipated that construction of the proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy, and impacts would be less than significant.

Operation

California's Renewable Portfolio Standard (RPS) establishes a goal of renewable energy for local providers to be 44 percent by 2040. Similarly, the State is promoting renewable energy targets to meet the 2022 Scoping Plan greenhouse gas emissions reductions. As discussed in Section 5.1, above, the Project would result in approximately 1,118,299 kWh of electricity and 3,878,278 kBTU/year of natural gas annually.

Future development projects would be designed and constructed in accordance with the County's latest adopted energy efficiency standards, which are based on the California Title 24 energy efficiency standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building. For example, the Title 24 Lighting Power Density requirements define the maximum wattage of lighting that can be used in a building based on its square footage. Title 24 standards, widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Compliance with the aforementioned mandatory measures would ensure that future development projects would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy. Therefore, impacts would be less than significant.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed El Camino Specific Plan Amendment. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

Haseeb Qureshi
Principal
Urban Crossroads, Inc.
hqureshi@urbanxroads.com

EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
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APPENDIX 4.1:

CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS

El Camino Real SP (Forster Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Camino Real SP (Forster Construction)
Construction Start Date	6/10/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	10.0
Location	33.499670871410885, -117.66169052331009
County	Orange
City	San Juan Capistrano
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6010
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Low Rise	95.0	Dwelling Unit	1.23	30,572	22,933	—	283	—

Health Club	3.10	1000sqft	0.07	3,100	0.00	—	—	—
Quality Restaurant	4.29	1000sqft	0.10	4,294	0.00	—	—	—
Parking Lot	88.0	Space	1.28	0.00	0.00	—	—	—
Other Asphalt Surfaces	0.47	Acre	0.47	0.00	0.00	—	—	—
Enclosed Parking Structure	83.0	Space	0.00	33,200	0.00	—	—	—

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, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.63	4.24	32.8	39.6	0.06	1.62	3.72	5.31	1.49	1.28	2.77	—	7,602	7,602	0.40	0.42	6.42	7,665
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.02	5.19	20.2	31.8	0.05	0.75	1.72	2.47	0.69	0.41	1.10	—	6,358	6,358	0.22	0.16	0.17	6,410
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.33	1.81	8.83	14.2	0.02	0.36	0.92	1.28	0.33	0.27	0.60	—	3,070	3,070	0.11	0.09	1.56	3,100
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	0.33	1.61	2.58	< 0.005	0.06	0.17	0.23	0.06	0.05	0.11	—	508	508	0.02	0.01	0.26	513

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.63	3.88	32.8	39.6	0.06	1.62	3.72	5.31	1.49	1.28	2.77	—	7,602	7,602	0.40	0.42	6.42	7,665
2026	1.96	4.24	12.6	21.2	0.03	0.44	1.45	1.90	0.41	0.35	0.75	—	4,576	4,576	0.15	0.13	5.75	4,626
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.83	1.53	12.1	18.5	0.03	0.47	1.23	1.70	0.43	0.29	0.73	—	4,151	4,151	0.15	0.12	0.14	4,191
2026	3.02	5.19	20.2	31.8	0.05	0.75	1.72	2.47	0.69	0.41	1.10	—	6,358	6,358	0.22	0.16	0.17	6,410
2027	1.27	3.69	8.52	13.5	0.02	0.31	0.48	0.80	0.29	0.11	0.40	—	2,229	2,229	0.08	0.03	0.04	2,240
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.09	0.90	7.91	9.22	0.01	0.36	0.92	1.28	0.33	0.27	0.60	—	1,924	1,924	0.08	0.06	0.78	1,946
2026	1.33	1.81	8.83	14.2	0.02	0.32	0.90	1.22	0.29	0.21	0.51	—	3,070	3,070	0.11	0.09	1.56	3,100
2027	0.10	0.11	0.74	1.14	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	—	186	186	0.01	< 0.005	0.04	187
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.20	0.16	1.44	1.68	< 0.005	0.06	0.17	0.23	0.06	0.05	0.11	—	319	319	0.01	0.01	0.13	322
2026	0.24	0.33	1.61	2.58	< 0.005	0.06	0.16	0.22	0.05	0.04	0.09	—	508	508	0.02	0.01	0.26	513
2027	0.02	0.02	0.14	0.21	< 0.005	0.01	< 0.005	0.01	< 0.005	< 0.005	0.01	—	30.9	30.9	< 0.005	< 0.005	0.01	31.0

3. Construction Emissions Details

3.1. Demolition (2025) - 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	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	2.95	2.95	—	0.45	0.45	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.18	0.15	1.40	1.26	< 0.005	0.06	—	0.06	0.05	—	0.05	—	216	216	0.01	< 0.005	—	217
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.26	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.7	35.7	< 0.005	< 0.005	—	35.9
Demolition	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.05	0.05	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.75	202
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.9	31.9	< 0.005	< 0.005	0.09	33.3
Hauling	0.36	0.11	4.01	2.18	0.02	0.03	0.56	0.59	0.03	0.16	0.19	—	2,331	2,331	0.25	0.38	4.57	2,455
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.02	12.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	0.02	0.01	0.26	0.14	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	147	147	0.02	0.02	0.12	155
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.00	2.00	< 0.005	< 0.005	< 0.005	2.03
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Hauling	< 0.005	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.3	24.3	< 0.005	< 0.005	0.02	25.6

3.3. Grading (2025) - 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	2.73	2.30	20.6	19.6	0.03	1.15	—	1.15	1.05	—	1.05	—	3,134	3,134	0.13	0.03	—	3,145
Dust From Material Movement	—	—	—	—	—	—	2.26	2.26	—	0.94	0.94	—	—	—	—	—	—	—
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	0.27	0.23	2.04	1.93	< 0.005	0.11	—	0.11	0.10	—	0.10	—	309	309	0.01	< 0.005	—	310
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.37	0.35	< 0.005	0.02	—	0.02	0.02	—	0.02	—	51.2	51.2	< 0.005	< 0.005	—	51.4
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	0.06	0.05	0.05	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.75	202
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	63.8	63.8	< 0.005	0.01	0.17	66.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.9	18.9	< 0.005	< 0.005	0.03	19.2
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.29	6.29	< 0.005	< 0.005	0.01	6.57
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	3.14	3.14	< 0.005	< 0.005	0.01	3.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.04	1.04	< 0.005	< 0.005	< 0.005	1.09
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading/Off-Site Improvements (2025) - 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	2.73	2.30	20.6	19.6	0.03	1.15	—	1.15	1.05	—	1.05	—	3,134	3,134	0.13	0.03	—	3,145
Dust From Material Movement	—	—	—	—	—	—	2.26	2.26	—	0.94	0.94	—	—	—	—	—	—	—
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	0.16	0.14	1.24	1.18	< 0.005	0.07	—	0.07	0.06	—	0.06	—	189	189	0.01	< 0.005	—	190

Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.23	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.3	31.3	< 0.005	< 0.005	—	31.4
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	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	0.05	0.05	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.75	202
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.9	31.9	< 0.005	< 0.005	0.09	33.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.6	11.6	< 0.005	< 0.005	0.02	11.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.92	1.92	< 0.005	< 0.005	< 0.005	2.01
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	1.92	1.92	< 0.005	< 0.005	< 0.005	1.94
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33

Hauling	0.00	0.00	0.00	0.00	0.00	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 (2025) - 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	1.45	1.21	11.3	14.1	0.03	0.47	—	0.47	0.43	—	0.43	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.45	1.21	11.3	14.1	0.03	0.47	—	0.47	0.43	—	0.43	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.35	0.29	2.75	3.43	0.01	0.11	—	0.11	0.10	—	0.10	—	638	638	0.03	0.01	—	640
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.05	0.50	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	106	106	< 0.005	< 0.005	—	106
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.34	0.30	0.30	4.76	0.00	0.00	1.11	1.11	0.00	0.26	0.26	—	1,128	1,128	0.01	0.04	4.27	1,145
Vendor	0.03	0.01	0.46	0.23	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	446	446	0.03	0.06	1.22	467
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.34	0.30	0.34	4.12	0.00	0.00	1.11	1.11	0.00	0.26	0.26	—	1,074	1,074	0.01	0.04	0.11	1,086
Vendor	0.03	0.01	0.48	0.24	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	447	447	0.03	0.06	0.03	466
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.08	0.07	0.08	1.04	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	264	264	< 0.005	0.01	0.45	268
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.13	113
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	43.7	43.7	< 0.005	< 0.005	0.07	44.3
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.02	18.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.38	1.16	10.7	14.1	0.03	0.41	—	0.41	0.38	—	0.38	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.91	0.76	7.04	9.28	0.02	0.27	—	0.27	0.25	—	0.25	—	1,734	1,734	0.07	0.01	—	1,740
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	287	287	0.01	< 0.005	—	288
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.29	0.26	4.48	0.00	0.00	1.11	1.11	0.00	0.26	0.26	—	1,107	1,107	0.01	0.04	3.85	1,123
Vendor	0.03	0.01	0.45	0.22	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	439	439	0.02	0.06	1.13	459
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.29	0.29	0.30	3.86	0.00	0.00	1.11	1.11	0.00	0.26	0.26	—	1,053	1,053	0.01	0.04	0.10	1,066

Vendor	0.03	0.01	0.47	0.23	< 0.005	< 0.005	0.12	0.12	< 0.005	0.03	0.04	—	439	439	0.02	0.06	0.03	458
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.19	0.19	0.20	2.65	0.00	0.00	0.73	0.73	0.00	0.17	0.17	—	704	704	0.01	0.03	1.10	713
Vendor	0.02	0.01	0.31	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.02	—	290	290	0.01	0.04	0.32	303
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.48	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	< 0.005	< 0.005	0.18	118
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.0	48.0	< 0.005	0.01	0.05	50.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (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	0.99	0.83	7.46	10.4	0.02	0.31	—	0.31	0.28	—	0.28	—	1,598	1,598	0.06	0.01	—	1,604
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	0.96	1.35	< 0.005	0.04	—	0.04	0.04	—	0.04	—	206	206	0.01	< 0.005	—	207
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	34.2	34.2	< 0.005	< 0.005	—	34.3
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	248	248	< 0.005	0.01	0.02	251
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	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.5	32.5	< 0.005	< 0.005	0.05	32.9
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	0.00	0.00	0.00	0.00	0.00	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	—	5.37	5.37	< 0.005	< 0.005	0.01	5.44
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. 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	0.96	0.81	7.29	10.4	0.02	0.29	—	0.29	0.27	—	0.27	—	1,599	1,599	0.06	0.01	—	1,604
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.73	1.04	< 0.005	0.03	—	0.03	0.03	—	0.03	—	160	160	0.01	< 0.005	—	160
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.19	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	26.4	26.4	< 0.005	< 0.005	—	26.5
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.85	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	244	244	< 0.005	0.01	0.02	247
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	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.04	25.0
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.08	4.08	< 0.005	< 0.005	0.01	4.14
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

3.15. Architectural Coating (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	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.30	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.7	46.7	< 0.005	< 0.005	—	46.8
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.73	7.73	< 0.005	< 0.005	—	7.75
Architectural Coatings	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.90	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	223	223	< 0.005	0.01	0.77	226
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	0.78	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	212	212	< 0.005	0.01	0.02	214
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	0.02	0.02	0.02	0.21	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	56.3	56.3	< 0.005	< 0.005	0.09	57.0
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.32	9.32	< 0.005	< 0.005	0.01	9.44
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

3.17. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.05	1.05	< 0.005	< 0.005	—	1.05
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.17	0.17	< 0.005	< 0.005	—	0.17
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.73	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	208	208	< 0.005	0.01	0.02	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.26
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	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/10/2025	7/10/2025	5.00	23.0	—
Grading	Grading	7/11/2025	8/30/2025	5.00	36.0	—
Grading/Off-Site Improvements	Grading	8/31/2025	9/30/2025	5.00	22.0	—
Building Construction	Building Construction	8/30/2025	12/3/2026	5.00	329	—
Paving	Paving	10/27/2026	2/20/2027	5.00	84.0	—
Architectural Coating	Architectural Coating	8/20/2026	1/3/2027	5.00	97.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Grading/Off-Site Improvements	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading/Off-Site Improvements	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading/Off-Site Improvements	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading/Off-Site Improvements	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
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	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	8.00	10.0	0.56

Paving	Pavers	Diesel	Average	1.00	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	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	1.00	10.2	HHDT,MHDT
Demolition	Hauling	131	4.75	HHDT
Demolition	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Grading/Off-Site Improvements	—	—	—	—
Grading/Off-Site Improvements	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading/Off-Site Improvements	Vendor	1.00	10.2	HHDT,MHDT
Grading/Off-Site Improvements	Hauling	0.00	20.0	HHDT
Grading/Off-Site Improvements	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	85.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	14.0	10.2	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	17.1	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

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	61,908	20,636	12,555	3,860	4,271

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	12,078	—

Grading	—	—	90.0	0.00	—
Grading/Off-Site Improvements	—	—	55.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.75

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	Other	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Low Rise	—	0%
Health Club	0.00	0%
Quality Restaurant	0.00	0%
Parking Lot	1.28	100%
Other Asphalt Surfaces	0.47	100%
Enclosed Parking Structure	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005
2026	0.00	589	0.03	< 0.005
2027	0.00	589	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)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.31	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

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

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	46.7
AQ-DPM	91.7
Drinking Water	50.2
Lead Risk Housing	66.1
Pesticides	29.2
Toxic Releases	33.8
Traffic	97.9
Effect Indicators	—
CleanUp Sites	44.0
Groundwater	10.8

Haz Waste Facilities/Generators	81.5
Impaired Water Bodies	72.2
Solid Waste	72.6
Sensitive Population	—
Asthma	8.91
Cardio-vascular	39.8
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	80.9
Housing	95.3
Linguistic	80.7
Poverty	70.7
Unemployment	36.4

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	15.61657898
Employed	59.69459772
Median HI	29.0645451
Education	—
Bachelor's or higher	27.48620557
High school enrollment	100
Preschool enrollment	10.36827922
Transportation	—
Auto Access	31.27165405

Active commuting	67.98408828
Social	—
2-parent households	26.48530733
Voting	41.52444501
Neighborhood	—
Alcohol availability	44.29616322
Park access	81.35506224
Retail density	72.34697806
Supermarket access	54.86975491
Tree canopy	17.31040678
Housing	—
Homeownership	34.36417298
Housing habitability	2.951366611
Low-inc homeowner severe housing cost burden	5.889901193
Low-inc renter severe housing cost burden	3.605800077
Uncrowded housing	6.416014372
Health Outcomes	—
Insured adults	2.014628513
Arthritis	0.0
Asthma ER Admissions	77.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	46.4

Cognitively Disabled	64.4
Physically Disabled	71.5
Heart Attack ER Admissions	63.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	79.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	62.6
English Speaking	13.6
Foreign-born	86.0
Outdoor Workers	8.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	51.7
Traffic Density	95.5
Traffic Access	23.0
Other Indices	—
Hardship	83.3

Other Decision Support	—
2016 Voting	70.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 3.15 acres
Construction: Construction Phases	Construction Schedule anticipated to begin June 2025 and end February 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Grading, Grading/Off-Site Improvements, and Building Construction.

Construction: Architectural Coatings	Rule 1113

El Camino SP (PAC Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Camino SP (PAC Construction)
Construction Start Date	12/14/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	10.0
Location	33.499670871410885, -117.66169052331009
County	Orange
City	San Juan Capistrano
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6010
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	Southern California Gas
App Version	2022.1.1.21

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
Movie Theater (No Matinee)	452	Seat	1.13	49,097	0.00	—	—	—

Other Asphalt Surfaces	1.34	Acre	1.34	0.00	0.00	—	—	—

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, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.48	3.53	17.0	23.7	0.04	0.59	0.58	1.17	0.54	0.14	0.68	—	4,388	4,388	0.16	0.08	2.14	4,418
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.46	2.84	19.3	17.5	0.03	0.96	2.66	3.61	0.88	1.07	1.95	—	4,337	4,337	0.23	0.28	0.10	4,426
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.14	1.24	7.95	9.61	0.02	0.30	0.37	0.66	0.27	0.11	0.39	—	1,972	1,972	0.08	0.04	0.45	1,988
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.23	1.45	1.75	< 0.005	0.05	0.07	0.12	0.05	0.02	0.07	—	327	327	0.01	0.01	0.08	329

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	1.52	1.27	10.5	13.2	0.02	0.37	0.33	0.70	0.34	0.08	0.42	—	2,701	2,701	0.10	0.05	1.44	2,721
2027	2.48	3.53	17.0	23.7	0.04	0.59	0.58	1.17	0.54	0.14	0.68	—	4,388	4,388	0.16	0.08	2.14	4,418
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.46	1.98	19.3	17.5	0.03	0.96	2.66	3.61	0.88	1.07	1.95	—	4,337	4,337	0.23	0.28	0.10	4,426
2026	2.32	2.84	17.8	16.9	0.03	0.87	2.66	3.53	0.80	1.07	1.87	—	4,308	4,308	0.22	0.27	0.09	4,394
2027	1.66	2.77	11.3	14.6	0.03	0.36	0.39	0.74	0.33	0.09	0.42	—	2,937	2,937	0.11	0.06	0.04	2,958
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.09	0.07	0.68	0.62	< 0.005	0.03	0.09	0.13	0.03	0.04	0.07	—	153	153	0.01	0.01	0.06	156
2026	1.14	0.98	7.95	9.61	0.02	0.30	0.37	0.66	0.27	0.11	0.39	—	1,972	1,972	0.08	0.04	0.45	1,988
2027	0.72	1.24	4.88	6.54	0.01	0.16	0.17	0.33	0.15	0.04	0.19	—	1,259	1,259	0.05	0.02	0.28	1,268
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.02	0.01	0.12	0.11	< 0.005	0.01	0.02	0.02	0.01	0.01	0.01	—	25.3	25.3	< 0.005	< 0.005	0.01	25.8
2026	0.21	0.18	1.45	1.75	< 0.005	0.05	0.07	0.12	0.05	0.02	0.07	—	327	327	0.01	0.01	0.08	329
2027	0.13	0.23	0.89	1.19	< 0.005	0.03	0.03	0.06	0.03	0.01	0.03	—	208	208	0.01	< 0.005	0.05	210

3. Construction Emissions Details

3.1. Grading (2025) - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.27	1.91	17.3	16.1	0.02	0.94	—	0.94	0.86	—	0.86	—	2,644	2,644	0.11	0.02	—	2,653
Dust From Material Movement	—	—	—	—	—	—	2.12	2.12	—	0.92	0.92	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.61	0.57	< 0.005	0.03	—	0.03	0.03	—	0.03	—	93.1	93.1	< 0.005	< 0.005	—	93.4
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.10	< 0.005	0.01	—	0.01	0.01	—	0.01	—	15.4	15.4	< 0.005	< 0.005	—	15.5
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	126	126	< 0.005	< 0.005	0.01	128
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.9	31.9	< 0.005	< 0.005	< 0.005	33.3
Hauling	0.15	0.03	1.93	0.83	0.01	0.02	0.40	0.42	0.02	0.11	0.13	—	1,535	1,535	0.12	0.25	0.08	1,612
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.51	4.51	< 0.005	< 0.005	0.01	4.57
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.12	1.12	< 0.005	< 0.005	< 0.005	1.17
Hauling	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	54.1	54.1	< 0.005	0.01	0.05	56.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.76
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.19
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.95	8.95	< 0.005	< 0.005	0.01	9.41

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.14	1.79	15.8	15.6	0.02	0.85	—	0.85	0.78	—	0.78	—	2,644	2,644	0.11	0.02	—	2,654

Dust From Material Movement	—	—	—	—	—	—	2.12	2.12	—	0.92	0.92	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.05	0.40	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	67.3	67.3	< 0.005	< 0.005	—	67.5
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.1	11.1	< 0.005	< 0.005	—	11.2
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.45	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	124	124	< 0.005	< 0.005	0.01	125
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	< 0.005	< 0.005	32.7
Hauling	0.15	0.02	1.86	0.80	0.01	0.02	0.40	0.42	0.02	0.11	0.13	—	1,508	1,508	0.11	0.24	0.08	1,582

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.20	3.20	< 0.005	< 0.005	< 0.005	3.24
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.83
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.4	38.4	< 0.005	0.01	0.03	40.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.35	6.35	< 0.005	< 0.005	0.01	6.67

3.5. Grading/Off-Site Improvements (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	2.14	1.79	15.8	15.6	0.02	0.85	—	0.85	0.78	—	0.78	—	2,644	2,644	0.11	0.02	—	2,654
Dust From Material Movement	—	—	—	—	—	—	2.12	2.12	—	0.92	0.92	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.61	0.60	< 0.005	0.03	—	0.03	0.03	—	0.03	—	101	101	< 0.005	< 0.005	—	102

Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.11	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.45	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	124	124	< 0.005	< 0.005	0.01	125
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	< 0.005	< 0.005	32.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.82	4.82	< 0.005	< 0.005	0.01	4.88
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.20	1.20	< 0.005	< 0.005	< 0.005	1.26
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.81
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21

Hauling	0.00	0.00	0.00	0.00	0.00	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 (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	1.44	1.20	10.3	12.0	0.02	0.37	—	0.37	0.34	—	0.34	—	2,239	2,239	0.09	0.02	—	2,247
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.44	1.20	10.3	12.0	0.02	0.37	—	0.37	0.34	—	0.34	—	2,239	2,239	0.09	0.02	—	2,247
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.93	0.78	6.68	7.81	0.02	0.24	—	0.24	0.22	—	0.22	—	1,455	1,455	0.06	0.01	—	1,460
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.17	0.14	1.22	1.43	< 0.005	0.04	—	0.04	0.04	—	0.04	—	241	241	0.01	< 0.005	—	242
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	1.11	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	273	273	< 0.005	0.01	0.95	277
Vendor	0.01	< 0.005	0.19	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	188	188	0.01	0.03	0.49	197
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.07	0.07	0.07	0.95	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	260	260	< 0.005	0.01	0.02	263
Vendor	0.01	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	188	188	0.01	0.03	0.01	196
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.05	0.64	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	171	171	< 0.005	0.01	0.27	174
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	122	122	0.01	0.02	0.14	128
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.4	28.4	< 0.005	< 0.005	0.04	28.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.2	20.2	< 0.005	< 0.005	0.02	21.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. 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	1.37	1.15	9.85	12.0	0.02	0.33	—	0.33	0.30	—	0.30	—	2,239	2,239	0.09	0.02	—	2,247
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	1.37	1.15	9.85	12.0	0.02	0.33	—	0.33	0.30	—	0.30	—	2,239	2,239	0.09	0.02	—	2,247
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.49	0.41	3.53	4.28	0.01	0.12	—	0.12	0.11	—	0.11	—	802	802	0.03	0.01	—	805
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.07	0.64	0.78	< 0.005	0.02	—	0.02	0.02	—	0.02	—	133	133	0.01	< 0.005	—	133
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	0.06	0.06	1.04	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	269	269	< 0.005	0.01	0.85	273
Vendor	0.01	< 0.005	0.18	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	0.01	0.03	0.44	193
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.07	0.06	0.06	0.89	0.00	0.00	0.27	0.27	0.00	0.06	0.06	—	256	256	< 0.005	0.01	0.02	259

Vendor	0.01	< 0.005	0.19	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	0.01	0.03	0.01	193
Hauling	0.00	0.00	0.00	0.00	0.00	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	0.02	0.02	0.03	0.33	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	92.9	92.9	< 0.005	< 0.005	0.13	94.1
Vendor	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	66.2	66.2	< 0.005	0.01	0.07	69.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.02	15.6
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.01	11.4
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

3.11. 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	0.77	0.65	5.74	8.20	0.01	0.23	—	0.23	0.21	—	0.21	—	1,244	1,244	0.05	0.01	—	1,248
Paving	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.10	0.08	0.72	1.03	< 0.005	0.03	—	0.03	0.03	—	0.03	—	157	157	0.01	< 0.005	—	157
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.19	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	26.0	26.0	< 0.005	< 0.005	—	26.0
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.74	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	192	192	< 0.005	0.01	0.61	195
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	0.02	0.02	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	0.03	23.7
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	0.00	0.00	0.00	0.00	0.00	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	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.87	3.87	< 0.005	< 0.005	0.01	3.92
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (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	0.19	0.16	1.14	1.51	< 0.005	0.03	—	0.03	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.53	4.53	< 0.005	< 0.005	—	4.54
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	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	—	0.75	0.75	< 0.005	< 0.005	—	0.75
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.6	49.6	< 0.005	< 0.005	< 0.005	50.2
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.4	31.4	< 0.005	< 0.005	< 0.005	32.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.28	1.28	< 0.005	< 0.005	< 0.005	1.30
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.83
Hauling	0.00	0.00	0.00	0.00	0.00	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	—	0.21	0.21	< 0.005	< 0.005	< 0.005	0.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.14
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. 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	0.18	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.51	0.68	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	< 0.005	< 0.005	—	81.4
Architectural Coatings	—	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.09	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Architectural Coatings	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.2	51.2	< 0.005	< 0.005	0.16	52.0
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.8	30.8	< 0.005	< 0.005	0.07	32.1
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.7	48.7	< 0.005	< 0.005	< 0.005	49.3
Vendor	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.8	30.8	< 0.005	< 0.005	< 0.005	32.1
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.5	22.5	< 0.005	< 0.005	0.03	22.8
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.0	14.0	< 0.005	< 0.005	0.01	14.6
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.73	3.73	< 0.005	< 0.005	0.01	3.78
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.42
Hauling	0.00	0.00	0.00	0.00	0.00	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
Grading	Grading	12/14/2025	1/13/2026	5.00	22.0	—
Grading/Off-Site Improvements	Grading	1/14/2026	2/2/2026	5.00	14.0	—
Building Construction	Building Construction	2/3/2026	7/2/2027	5.00	369	—
Paving	Paving	7/2/2027	9/3/2027	5.00	46.0	—
Architectural Coating	Architectural Coating	12/19/2026	8/21/2027	5.00	175	—

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
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Grading/Off-Site Improvements	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading/Off-Site Improvements	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading/Off-Site Improvements	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43

Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	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
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	1.00	10.2	HHDT,MHDT
Grading	Hauling	22.0	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Grading/Off-Site Improvements	—	—	—	—
Grading/Off-Site Improvements	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading/Off-Site Improvements	Vendor	1.00	10.2	HHDT,MHDT
Grading/Off-Site Improvements	Hauling	0.00	20.0	HHDT

Grading/Off-Site Improvements	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	21.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	6.00	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	1.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

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	73,646	24,549	3,510

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	4,000	—	44.0	0.00	—
Grading/Off-Site Improvements	—	—	28.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.34

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Movie Theater (No Matinee)	0.00	0%
Other Asphalt Surfaces	1.34	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	589	0.03	< 0.005
2026	0.00	589	0.03	< 0.005
2027	0.00	589	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)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.31	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	46.7
AQ-DPM	91.7
Drinking Water	50.2
Lead Risk Housing	66.1
Pesticides	29.2
Toxic Releases	33.8
Traffic	97.9
Effect Indicators	—
CleanUp Sites	44.0
Groundwater	10.8
Haz Waste Facilities/Generators	81.5
Impaired Water Bodies	72.2

Solid Waste	72.6
Sensitive Population	—
Asthma	8.91
Cardio-vascular	39.8
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	80.9
Housing	95.3
Linguistic	80.7
Poverty	70.7
Unemployment	36.4

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	15.61657898
Employed	59.69459772
Median HI	29.0645451
Education	—
Bachelor's or higher	27.48620557
High school enrollment	100
Preschool enrollment	10.36827922
Transportation	—
Auto Access	31.27165405
Active commuting	67.98408828
Social	—

2-parent households	26.48530733
Voting	41.52444501
Neighborhood	—
Alcohol availability	44.29616322
Park access	81.35506224
Retail density	72.34697806
Supermarket access	54.86975491
Tree canopy	17.31040678
Housing	—
Homeownership	34.36417298
Housing habitability	2.951366611
Low-inc homeowner severe housing cost burden	5.889901193
Low-inc renter severe housing cost burden	3.605800077
Uncrowded housing	6.416014372
Health Outcomes	—
Insured adults	2.014628513
Arthritis	0.0
Asthma ER Admissions	77.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	46.4
Cognitively Disabled	64.4
Physically Disabled	71.5

Heart Attack ER Admissions	63.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	79.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	62.6
English Speaking	13.6
Foreign-born	86.0
Outdoor Workers	8.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	51.7
Traffic Density	95.5
Traffic Access	23.0
Other Indices	—
Hardship	83.3
Other Decision Support	—
2016 Voting	70.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 2.47 acres
Construction: Construction Phases	Construction will begin December 2025 and end September 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction.
Construction: Architectural Coatings	Rule 1113

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APPENDIX 4.2:

CALEEMOD PROJECT OPERATIONS EMISSIONS MODEL OUTPUTS

El Camino Real SP (Forster Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Camino Real SP (Forster Operations)
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	10.0
Location	33.499670871410885, -117.66169052331009
County	Orange
City	San Juan Capistrano
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6010
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Low Rise	95.0	Dwelling Unit	1.23	30,572	22,933	—	283	—

Health Club	3.10	1000sqft	0.07	3,100	0.00	—	—	—
Quality Restaurant	4.29	1000sqft	0.10	4,294	0.00	—	—	—
Parking Lot	88.0	Space	1.28	0.00	0.00	—	—	—
Other Asphalt Surfaces	0.47	Acre	0.47	0.00	0.00	—	—	—
Enclosed Parking Structure	83.0	Space	0.00	33,200	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	3.73	3.46	24.0	0.06	0.20	4.17	4.37	0.19	1.06	1.25	59.2	7,056	7,115	6.28	0.20	14.6	7,346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.36	2.95	3.51	15.7	0.05	0.19	4.17	4.36	0.19	1.06	1.25	59.2	6,868	6,927	6.29	0.21	2.76	7,150
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.63	3.28	2.03	19.7	0.04	0.07	3.96	4.04	0.07	1.01	1.08	59.2	4,877	4,936	6.25	0.20	7.48	5,159
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	0.60	0.37	3.59	0.01	0.01	0.72	0.74	0.01	0.18	0.20	9.79	807	817	1.03	0.03	1.24	854

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.13	1.95	1.33	15.9	0.04	0.02	4.17	4.20	0.02	1.06	1.08	—	4,338	4,338	0.19	0.16	12.2	4,404
Area	0.99	1.75	1.64	7.84	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,022	2,022	0.04	< 0.005	—	2,024
Energy	0.06	0.03	0.49	0.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	692	692	0.12	0.01	—	697
Water	—	—	—	—	—	—	—	—	—	—	—	9.68	4.49	14.2	1.00	0.02	—	46.2
Waste	—	—	—	—	—	—	—	—	—	—	—	49.5	0.00	49.5	4.95	0.00	—	173
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.44	2.44
Total	3.18	3.73	3.46	24.0	0.06	0.20	4.17	4.37	0.19	1.06	1.25	59.2	7,056	7,115	6.28	0.20	14.6	7,346
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.12	1.94	1.44	14.8	0.04	0.02	4.17	4.20	0.02	1.06	1.08	—	4,172	4,172	0.20	0.17	0.32	4,228
Area	0.18	0.99	1.58	0.67	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,000	2,000	0.04	< 0.005	—	2,002
Energy	0.06	0.03	0.49	0.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	692	692	0.12	0.01	—	697
Water	—	—	—	—	—	—	—	—	—	—	—	9.68	4.49	14.2	1.00	0.02	—	46.2
Waste	—	—	—	—	—	—	—	—	—	—	—	49.5	0.00	49.5	4.95	0.00	—	173
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.44	2.44
Total	2.36	2.95	3.51	15.7	0.05	0.19	4.17	4.36	0.19	1.06	1.25	59.2	6,868	6,927	6.29	0.21	2.76	7,150
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.01	1.83	1.39	14.5	0.04	0.02	3.96	3.98	0.02	1.01	1.03	—	4,029	4,029	0.19	0.16	5.04	4,088
Area	0.57	1.42	0.15	4.95	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	152	152	< 0.005	< 0.005	—	152
Energy	0.06	0.03	0.49	0.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	692	692	0.12	0.01	—	697
Water	—	—	—	—	—	—	—	—	—	—	—	9.68	4.49	14.2	1.00	0.02	—	46.2

Waste	—	—	—	—	—	—	—	—	—	—	—	49.5	0.00	49.5	4.95	0.00	—	173
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.44	2.44
Total	2.63	3.28	2.03	19.7	0.04	0.07	3.96	4.04	0.07	1.01	1.08	59.2	4,877	4,936	6.25	0.20	7.48	5,159
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.37	0.33	0.25	2.64	0.01	< 0.005	0.72	0.73	< 0.005	0.18	0.19	—	667	667	0.03	0.03	0.83	677
Area	0.10	0.26	0.03	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	25.1	25.1	< 0.005	< 0.005	—	25.2
Energy	0.01	0.01	0.09	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	114	114	0.02	< 0.005	—	115
Water	—	—	—	—	—	—	—	—	—	—	—	1.60	0.74	2.35	0.16	< 0.005	—	7.65
Waste	—	—	—	—	—	—	—	—	—	—	—	8.19	0.00	8.19	0.82	0.00	—	28.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	0.48	0.60	0.37	3.59	0.01	0.01	0.72	0.74	0.01	0.18	0.20	9.79	807	817	1.03	0.03	1.24	854

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	1.18	1.08	0.73	8.74	0.02	0.01	2.30	2.31	0.01	0.58	0.60	—	2,386	2,386	0.10	0.09	6.71	2,423
Health Club	0.14	0.13	0.09	1.14	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	323	323	0.01	0.01	0.91	327
Quality Restaurant	0.82	0.75	0.50	5.99	0.02	0.01	1.57	1.57	0.01	0.40	0.41	—	1,629	1,629	0.07	0.06	4.58	1,654

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.13	1.95	1.33	15.9	0.04	0.02	4.17	4.20	0.02	1.06	1.08	—	4,338	4,338	0.19	0.16	12.2	4,404
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	1.17	1.07	0.80	8.15	0.02	0.01	2.30	2.31	0.01	0.58	0.60	—	2,295	2,295	0.11	0.09	0.17	2,326
Health Club	0.14	0.13	0.10	1.06	< 0.005	< 0.005	0.31	0.31	< 0.005	0.08	0.08	—	310	310	0.01	0.01	0.02	314
Quality Restaurant	0.81	0.74	0.55	5.59	0.02	0.01	1.57	1.57	0.01	0.40	0.41	—	1,566	1,566	0.07	0.07	0.12	1,588
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	2.12	1.94	1.44	14.8	0.04	0.02	4.17	4.20	0.02	1.06	1.08	—	4,172	4,172	0.20	0.17	0.32	4,228
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.21	0.19	0.14	1.50	< 0.005	< 0.005	0.41	0.41	< 0.005	0.10	0.11	—	378	378	0.02	0.02	0.47	384
Health Club	0.02	0.02	0.02	0.19	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	50.8	50.8	< 0.005	< 0.005	0.06	51.6

Quality Restaurant	0.13	0.12	0.09	0.95	< 0.005	< 0.005	0.26	0.26	< 0.005	0.07	0.07	—	238	238	0.01	0.01	0.30	242
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	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	0.37	0.33	0.25	2.64	0.01	< 0.005	0.72	0.73	< 0.005	0.18	0.19	—	667	667	0.03	0.03	0.83	677

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	41.0	41.0	0.03	< 0.005	—	42.8
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	3.44	3.44	< 0.005	< 0.005	—	3.59
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	18.9	18.9	0.01	< 0.005	—	19.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.03	6.03	< 0.005	< 0.005	—	6.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	14.4	14.4	0.01	< 0.005	—	15.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	83.7	83.7	0.06	0.01	—	87.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	41.0	41.0	0.03	< 0.005	—	42.8
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	3.44	3.44	< 0.005	< 0.005	—	3.59
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	18.9	18.9	0.01	< 0.005	—	19.7
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	6.03	6.03	< 0.005	< 0.005	—	6.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	14.4	14.4	0.01	< 0.005	—	15.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	83.7	83.7	0.06	0.01	—	87.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	6.79	6.79	< 0.005	< 0.005	—	7.09
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57	< 0.005	< 0.005	—	0.59
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	3.13	3.13	< 0.005	< 0.005	—	3.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	1.00	1.00	< 0.005	< 0.005	—	1.04

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	—	2.38	2.38	< 0.005	< 0.005	—	2.48
Total	—	—	—	—	—	—	—	—	—	—	—	—	13.9	13.9	0.01	< 0.005	—	14.5

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	413	413	0.04	< 0.005	—	414
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.1	40.1	< 0.005	< 0.005	—	40.2
Quality Restaurant	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	155	155	0.01	< 0.005	—	155
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
Other Asphalt Surfaces	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.49	0.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	608	608	0.05	< 0.005	—	609
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Low Rise	0.04	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	413	413	0.04	< 0.005	—	414
Health Club	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	40.1	40.1	< 0.005	< 0.005	—	40.2
Quality Restaurant	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	155	155	0.01	< 0.005	—	155
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
Other Asphalt Surfaces	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.49	0.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	608	608	0.05	< 0.005	—	609
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	68.4	68.4	0.01	< 0.005	—	68.6
Health Club	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.64	6.64	< 0.005	< 0.005	—	6.66
Quality Restaurant	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.6	25.6	< 0.005	< 0.005	—	25.7
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
Other Asphalt Surfaces	0.00	0.00	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 Structure	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.09	0.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.18	0.09	1.58	0.67	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,000	2,000	0.04	< 0.005	—	2,002
Consumer Products	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.81	0.76	0.07	7.16	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.7	21.7	< 0.005	< 0.005	—	21.7
Total	0.99	1.75	1.64	7.84	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,022	2,022	0.04	< 0.005	—	2,024
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.18	0.09	1.58	0.67	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,000	2,000	0.04	< 0.005	—	2,002
Consumer Products	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.18	0.99	1.58	0.67	0.01	0.13	—	0.13	0.13	—	0.13	0.00	2,000	2,000	0.04	< 0.005	—	2,002
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	22.7	22.7	< 0.005	< 0.005	—	22.7

Consum Products	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	0.01	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.46	2.46	< 0.005	< 0.005	—	2.47
Total	0.10	0.26	0.03	0.90	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	25.1	25.1	< 0.005	< 0.005	—	25.2

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.83	3.24	10.1	0.70	0.02	—	32.7
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.35	0.15	0.51	0.04	< 0.005	—	1.67
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.50	1.10	3.59	0.26	0.01	—	11.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.68	4.49	14.2	1.00	0.02	—	46.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.83	3.24	10.1	0.70	0.02	—	32.7
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.35	0.15	0.51	0.04	< 0.005	—	1.67
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.50	1.10	3.59	0.26	0.01	—	11.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.68	4.49	14.2	1.00	0.02	—	46.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.13	0.54	1.67	0.12	< 0.005	—	5.41
Health Club	—	—	—	—	—	—	—	—	—	—	—	0.06	0.03	0.08	0.01	< 0.005	—	0.28
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.41	0.18	0.60	0.04	< 0.005	—	1.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.60	0.74	2.35	0.16	< 0.005	—	7.65

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	37.8	0.00	37.8	3.78	0.00	—	132
Health Club	—	—	—	—	—	—	—	—	—	—	—	9.52	0.00	9.52	0.95	0.00	—	33.3
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.11	0.00	2.11	0.21	0.00	—	7.39
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	49.5	0.00	49.5	4.95	0.00	—	173

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	37.8	0.00	37.8	3.78	0.00	—	132
Health Club	—	—	—	—	—	—	—	—	—	—	—	9.52	0.00	9.52	0.95	0.00	—	33.3
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	2.11	0.00	2.11	0.21	0.00	—	7.39
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	49.5	0.00	49.5	4.95	0.00	—	173
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	6.27	0.00	6.27	0.63	0.00	—	21.9
Health Club	—	—	—	—	—	—	—	—	—	—	—	1.58	0.00	1.58	0.16	0.00	—	5.52
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	0.35	0.00	0.35	0.03	0.00	—	1.22
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	8.19	0.00	8.19	0.82	0.00	—	28.7

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.41	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.44	2.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.41	2.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.44	2.44
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Quality Restaurant	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.40	0.40

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Apartments Low Rise	373	353	353	134,059	3,244	3,070	3,070	1,165,893
Health Club	42.0	39.0	39.0	15,017	440	409	409	157,428
Quality Restaurant	237	260	208	86,173	2,017	2,213	1,767	733,333
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking Structure	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

Hearth Type	Unmitigated (number)

Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	95
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
61908.299999999996	20,636	11,091	3,697	4,579

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	331,858	45.1	0.0330	0.0040	1,288,714

Health Club	27,818	45.1	0.0330	0.0040	125,129
Quality Restaurant	152,964	45.1	0.0330	0.0040	482,671
Parking Lot	48,843	45.1	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	45.1	0.0330	0.0040	0.00
Enclosed Parking Structure	116,248	45.1	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)
Apartments Low Rise	3,564,937	363,269
Health Club	183,344	0.00
Quality Restaurant	1,303,374	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
Enclosed Parking Structure	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	70.2	—
Health Club	17.7	—
Quality Restaurant	3.92	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
Enclosed Parking Structure	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
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	User Defined	750	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	User Defined	150	0.12	0.60	0.00	1.00
Health Club	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
Quality Restaurant	Household refrigerators and/or freezers	User Defined	150	0.00	0.60	0.00	1.00
Quality Restaurant	Other commercial A/C and heat pumps	User Defined	750	1.80	4.00	4.00	18.0
Quality Restaurant	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. 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. 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)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.31	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	46.7
AQ-DPM	91.7

Drinking Water	50.2
Lead Risk Housing	66.1
Pesticides	29.2
Toxic Releases	33.8
Traffic	97.9
Effect Indicators	—
CleanUp Sites	44.0
Groundwater	10.8
Haz Waste Facilities/Generators	81.5
Impaired Water Bodies	72.2
Solid Waste	72.6
Sensitive Population	—
Asthma	8.91
Cardio-vascular	39.8
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	80.9
Housing	95.3
Linguistic	80.7
Poverty	70.7
Unemployment	36.4

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	15.61657898

Employed	59.69459772
Median HI	29.0645451
Education	—
Bachelor's or higher	27.48620557
High school enrollment	100
Preschool enrollment	10.36827922
Transportation	—
Auto Access	31.27165405
Active commuting	67.98408828
Social	—
2-parent households	26.48530733
Voting	41.52444501
Neighborhood	—
Alcohol availability	44.29616322
Park access	81.35506224
Retail density	72.34697806
Supermarket access	54.86975491
Tree canopy	17.31040678
Housing	—
Homeownership	34.36417298
Housing habitability	2.951366611
Low-inc homeowner severe housing cost burden	5.889901193
Low-inc renter severe housing cost burden	3.605800077
Uncrowded housing	6.416014372
Health Outcomes	—
Insured adults	2.014628513
Arthritis	0.0

Asthma ER Admissions	77.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	46.4
Cognitively Disabled	64.4
Physically Disabled	71.5
Heart Attack ER Admissions	63.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	79.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	62.6
English Speaking	13.6

Foreign-born	86.0
Outdoor Workers	8.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	51.7
Traffic Density	95.5
Traffic Access	23.0
Other Indices	—
Hardship	83.3
Other Decision Support	—
2016 Voting	70.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 3.15 acres
Construction: Construction Phases	Construction Schedule anticipated to begin June 2025 and end February 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Grading, Grading/Off-Site Improvements, and Building Construction.
Construction: Architectural Coatings	Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Hearths	Rule 445
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

El Camino SP (PAC Operations) Detailed Report

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5.15. Operational Off-Road Equipment

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Camino SP (PAC Operations)
Operational Year	2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	10.0
Location	33.499670871410885, -117.66169052331009
County	Orange
City	San Juan Capistrano
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	6010
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	Southern California Gas
App Version	2022.1.1.21

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
Movie Theater (No Matinee)	452	Seat	1.13	49,097	0.00	—	—	—

Other Asphalt Surfaces	1.34	Acre	1.34	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.95	4.74	2.92	31.4	0.08	0.09	7.85	7.94	0.08	1.99	2.08	39.1	8,826	8,865	4.35	0.32	23.0	9,093
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.55	4.37	3.11	27.1	0.08	0.09	7.85	7.93	0.08	1.99	2.07	39.1	8,505	8,544	4.36	0.34	0.64	8,754
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.73	3.63	2.36	20.9	0.06	0.07	5.42	5.49	0.07	1.38	1.45	39.1	6,186	6,225	4.26	0.24	6.93	6,410
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	0.66	0.43	3.81	0.01	0.01	0.99	1.00	0.01	0.25	0.26	6.47	1,024	1,031	0.71	0.04	1.15	1,061

2.5. Operations Emissions by Sector, Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.51	3.18	2.37	28.8	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	8,124	8,124	0.33	0.30	23.0	8,244
Area	0.38	1.54	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.78	8.78	< 0.005	< 0.005	—	8.81
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	690	690	0.10	0.01	—	694
Water	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	3.95	4.74	2.92	31.4	0.08	0.09	7.85	7.94	0.08	1.99	2.08	39.1	8,826	8,865	4.35	0.32	23.0	9,093
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.49	3.16	2.58	26.6	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	7,812	7,812	0.34	0.31	0.60	7,914
Area	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	690	690	0.10	0.01	—	694
Water	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	3.55	4.37	3.11	27.1	0.08	0.09	7.85	7.93	0.08	1.99	2.07	39.1	8,505	8,544	4.36	0.34	0.64	8,754
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.41	2.18	1.81	19.0	0.05	0.03	5.42	5.45	0.03	1.38	1.40	—	5,487	5,487	0.23	0.22	6.89	5,564
Area	0.26	1.42	0.01	1.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.01	6.01	< 0.005	< 0.005	—	6.04
Energy	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	690	690	0.10	0.01	—	694
Water	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	2.73	3.63	2.36	20.9	0.06	0.07	5.42	5.49	0.07	1.38	1.45	39.1	6,186	6,225	4.26	0.24	6.93	6,410

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.44	0.40	0.33	3.46	0.01	0.01	0.99	0.99	0.01	0.25	0.26	—	908	908	0.04	0.04	1.14	921
Area	0.05	0.26	< 0.005	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.00	1.00	< 0.005	< 0.005	—	1.00
Energy	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	114	114	0.02	< 0.005	—	115
Water	—	—	—	—	—	—	—	—	—	—	—	1.30	0.57	1.86	0.13	< 0.005	—	6.15
Waste	—	—	—	—	—	—	—	—	—	—	—	5.17	0.00	5.17	0.52	0.00	—	18.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	0.50	0.66	0.43	3.81	0.01	0.01	0.99	1.00	0.01	0.25	0.26	6.47	1,024	1,031	0.71	0.04	1.15	1,061

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	3.51	3.18	2.37	28.8	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	8,124	8,124	0.33	0.30	23.0	8,244
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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	3.51	3.18	2.37	28.8	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	8,124	8,124	0.33	0.30	23.0	8,244
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Movie Theater (No Matinee)	3.49	3.16	2.58	26.6	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	7,812	7,812	0.34	0.31	0.60	7,914
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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	3.49	3.16	2.58	26.6	0.08	0.04	7.85	7.89	0.04	1.99	2.03	—	7,812	7,812	0.34	0.31	0.60	7,914
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	0.44	0.40	0.33	3.46	0.01	0.01	0.99	0.99	0.01	0.25	0.26	—	908	908	0.04	0.04	1.14	921
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	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	0.44	0.40	0.33	3.46	0.01	0.01	0.99	0.99	0.01	0.25	0.26	—	908	908	0.04	0.04	1.14	921

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	54.4	54.4	0.04	< 0.005	—	56.9
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	—	54.4	54.4	0.04	< 0.005	—	56.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	54.4	54.4	0.04	< 0.005	—	56.9
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	54.4	54.4	0.04	< 0.005	—	56.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	9.01	9.01	0.01	< 0.005	—	9.42
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	9.01	9.01	0.01	< 0.005	—	9.42

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	635	635	0.06	< 0.005	—	637

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	635	635	0.06	< 0.005	—	637
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	635	635	0.06	< 0.005	—	637
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.53	0.45	< 0.005	0.04	—	0.04	0.04	—	0.04	—	635	635	0.06	< 0.005	—	637
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	105	105	0.01	< 0.005	—	105
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.01	0.10	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	105	105	0.01	< 0.005	—	105

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consum Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.38	0.35	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.78	8.78	< 0.005	< 0.005	—	8.81
Total	0.38	1.54	0.02	2.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.78	8.78	< 0.005	< 0.005	—	8.81
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.00	1.00	< 0.005	< 0.005	—	1.00
Total	0.05	0.26	< 0.005	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.00	1.00	< 0.005	< 0.005	—	1.00

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	7.83	3.44	11.3	0.81	0.02	—	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	1.30	0.57	1.86	0.13	< 0.005	—	6.15
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	1.30	0.57	1.86	0.13	< 0.005	—	6.15

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.12	0.00	—	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	5.17	0.00	5.17	0.52	0.00	—	18.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	5.17	0.00	5.17	0.52	0.00	—	18.1

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.05	0.05
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Movie Theater (No Matinee)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Movie Theater (No Matinee)	606	1,058	1,058	268,326	6,353	11,091	11,091	2,812,927
Other Asphalt Surfaces	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

5.10.2. 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	73,646	24,549	3,510

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Movie Theater (No Matinee)	440,568	45.1	0.0330	0.0040	1,981,764
Other Asphalt Surfaces	0.00	45.1	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)
Movie Theater (No Matinee)	4,084,287	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Movie Theater (No Matinee)	58.0	—
Other Asphalt Surfaces	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
Movie Theater (No Matinee)	Other commercial A/C and heat pumps	User Defined	750	< 0.005	4.00	4.00	18.0
Movie Theater (No Matinee)	Stand-alone retail refrigerators and freezers	User Defined	150	0.04	1.00	0.00	1.00
Movie Theater (No Matinee)	Walk-in refrigerators and freezers	User Defined	150	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. 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. 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)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	9.31	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	64.7
AQ-PM	46.7
AQ-DPM	91.7
Drinking Water	50.2
Lead Risk Housing	66.1
Pesticides	29.2
Toxic Releases	33.8
Traffic	97.9
Effect Indicators	—
CleanUp Sites	44.0

Groundwater	10.8
Haz Waste Facilities/Generators	81.5
Impaired Water Bodies	72.2
Solid Waste	72.6
Sensitive Population	—
Asthma	8.91
Cardio-vascular	39.8
Low Birth Weights	39.0
Socioeconomic Factor Indicators	—
Education	80.9
Housing	95.3
Linguistic	80.7
Poverty	70.7
Unemployment	36.4

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	15.61657898
Employed	59.69459772
Median HI	29.0645451
Education	—
Bachelor's or higher	27.48620557
High school enrollment	100
Preschool enrollment	10.36827922
Transportation	—

Auto Access	31.27165405
Active commuting	67.98408828
Social	—
2-parent households	26.48530733
Voting	41.52444501
Neighborhood	—
Alcohol availability	44.29616322
Park access	81.35506224
Retail density	72.34697806
Supermarket access	54.86975491
Tree canopy	17.31040678
Housing	—
Homeownership	34.36417298
Housing habitability	2.951366611
Low-inc homeowner severe housing cost burden	5.889901193
Low-inc renter severe housing cost burden	3.605800077
Uncrowded housing	6.416014372
Health Outcomes	—
Insured adults	2.014628513
Arthritis	0.0
Asthma ER Admissions	77.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0

Life Expectancy at Birth	46.4
Cognitively Disabled	64.4
Physically Disabled	71.5
Heart Attack ER Admissions	63.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	79.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	44.4
Elderly	62.6
English Speaking	13.6
Foreign-born	86.0
Outdoor Workers	8.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	51.7
Traffic Density	95.5
Traffic Access	23.0
Other Indices	—

Hardship	83.3
Other Decision Support	—
2016 Voting	70.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	72.0
Healthy Places Index Score for Project Location (b)	22.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total Project area is 2.47 acres
Construction: Construction Phases	Construction will begin December 2025 and end September 2027
Construction: Off-Road Equipment	Crawler Tractors used in lieu of Tractors/Loaders/Backhoes

Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction.
Construction: Architectural Coatings	Rule 1113
Operations: Vehicle Data	Trip characteristics based on information provided in the Traffic analysis
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively. Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater.

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APPENDIX 4.3:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2025	HHDT	Aggregate	Aggregate	Gasoline	6.722292417	187211.8249	43.47263428	43472.63428	70478631.58	187211.8249	429677816.6	6.10	HHDT
Orange (SC)	2025	HHDT	Aggregate	Aggregate	Diesel	11420.65028	399674472.9	65906.134	65906134		399674472.9			
Orange (SC)	2025	HHDT	Aggregate	Aggregate	Electricity	83.08829312	2610319.399	0	0		2610319.399			
Orange (SC)	2025	HHDT	Aggregate	Aggregate	Natural Gas	1387.681315	27205812.46	4529.024941	4529024.941		27205812.46			
Orange (SC)	2025	LDA	Aggregate	Aggregate	Gasoline	1056312.531	14534305570	473572.1317	473572131.7	483311897.7	14534305570	16365334376	33.86	LDA
Orange (SC)	2025	LDA	Aggregate	Aggregate	Diesel	3018.286484	30930917.53	716.2312664	716231.2664		30930917.53			
Orange (SC)	2025	LDA	Aggregate	Aggregate	Electricity	74944.83017	1257487800	0	0		1257487800			
Orange (SC)	2025	LDA	Aggregate	Aggregate	Plug-in Hybric	33699.13897	542610088.6	9023.534744	9023534.744		542610088.6			
Orange (SC)	2025	LDT1	Aggregate	Aggregate	Gasoline	96356.97279	1194865048	46625.02559	46625025.59	46687335.51	1194865048	1203383871	25.78	LDT1
Orange (SC)	2025	LDT1	Aggregate	Aggregate	Diesel	28.50822088	148646.4777	6.219657773	6219.657773		148646.4777			
Orange (SC)	2025	LDT1	Aggregate	Aggregate	Electricity	292.0687492	4643810.615	0	0		4643810.615			
Orange (SC)	2025	LDT1	Aggregate	Aggregate	Plug-in Hybric	205.3971672	3726366	56.09025826	56090.25826		3726366			
Orange (SC)	2025	LDT2	Aggregate	Aggregate	Gasoline	529834.4659	7484135199	298757.1671	298757167.1	301045799.7	7484135199	7654119518	25.43	LDT2
Orange (SC)	2025	LDT2	Aggregate	Aggregate	Diesel	2111.525403	30517603.96	930.9055577	930905.5577		30517603.96			
Orange (SC)	2025	LDT2	Aggregate	Aggregate	Electricity	4251.506284	53582168.77	0	0		53582168.77			
Orange (SC)	2025	LDT2	Aggregate	Aggregate	Plug-in Hybric	4967.68538	85884545.9	1357.727071	1357727.071		85884545.9			
Orange (SC)	2025	LHDT1	Aggregate	Aggregate	Gasoline	41223.98689	542979042.4	37806.15523	37806155.23	52728434.93	542979042.4	863967636.1	16.39	LHDT1
Orange (SC)	2025	LHDT1	Aggregate	Aggregate	Diesel	22344.74546	311138854.5	14922.2797	14922279.7		311138854.5			
Orange (SC)	2025	LHDT1	Aggregate	Aggregate	Electricity	428.3107595	9849739.22	0	0		9849739.22			
Orange (SC)	2025	LHDT2	Aggregate	Aggregate	Gasoline	6668.437484	81865387.67	6538.733519	6538733.519	14110965.07	81865387.67	217654093.2	15.42	LHDT2
Orange (SC)	2025	LHDT2	Aggregate	Aggregate	Diesel	9609.574779	133372438.5	7572.231555	7572231.555		133372438.5			
Orange (SC)	2025	LHDT2	Aggregate	Aggregate	Electricity	110.6168929	2416266.968	0	0		2416266.968			
Orange (SC)	2025	MCY	Aggregate	Aggregate	Gasoline	51011.4251	113090178.1	2670.803515	2670803.515	2670803.515	113090178.1	113090178.1	42.34	MCY
Orange (SC)	2025	MDV	Aggregate	Aggregate	Gasoline	325579.9564	4393105851	215941.9231	215941923.1	219329281.6	4393105851	4564006163	20.81	MDV
Orange (SC)	2025	MDV	Aggregate	Aggregate	Diesel	4600.640767	62636095.42	2560.709825	2560709.825		62636095.42			
Orange (SC)	2025	MDV	Aggregate	Aggregate	Electricity	4586.98934	57809096.36	0	0		57809096.36			
Orange (SC)	2025	MDV	Aggregate	Aggregate	Plug-in Hybric	3164.448377	50455120.41	826.6486853	826648.6853		50455120.41			
Orange (SC)	2025	MH	Aggregate	Aggregate	Gasoline	5833.176957	18620734.7	3808.503156	3808503.156	4761249.565	18620734.7	28298942.54	5.94	MH
Orange (SC)	2025	MH	Aggregate	Aggregate	Diesel	2988.17924	9678207.841	952.7464096	952746.4096		9678207.841			
Orange (SC)	2025	MHDT	Aggregate	Aggregate	Gasoline	7268.413445	124187027.5	23898.25776	23898257.76	64710379.97	124187027.5	493957266.7	7.63	MHDT
Orange (SC)	2025	MHDT	Aggregate	Aggregate	Diesel	28028.87695	362113035.2	40334.46322	40334463.22		362113035.2			
Orange (SC)	2025	MHDT	Aggregate	Aggregate	Electricity	222.6169852	3604599.599	0	0		3604599.599			
Orange (SC)	2025	MHDT	Aggregate	Aggregate	Natural Gas	276.7734983	4052604.383	477.6589834	477658.9834		4052604.383			
Orange (SC)	2025	OBUS	Aggregate	Aggregate	Gasoline	835.2077651	11353030.69	2167.479519	2167479.519	3820128.487	11353030.69	23743846.23	6.22	OBUS
Orange (SC)	2025	OBUS	Aggregate	Aggregate	Diesel	483.633336	10680448.22	1479.414342	1479414.342		10680448.22			
Orange (SC)	2025	OBUS	Aggregate	Aggregate	Electricity	5.857415532	145234.659	0	0		145234.659			
Orange (SC)	2025	OBUS	Aggregate	Aggregate	Natural Gas	89.06555643	1565132.662	173.2346267	173234.6267		1565132.662			
Orange (SC)	2025	SBUS	Aggregate	Aggregate	Gasoline	678.7674095	10025036.68	1122.109613	1122109.613	3305157.85	10025036.68	21763349.91	6.58	SBUS
Orange (SC)	2025	SBUS	Aggregate	Aggregate	Diesel	788.6124051	5255881.951	709.8347329	709834.7329		5255881.951			
Orange (SC)	2025	SBUS	Aggregate	Aggregate	Electricity	11.85785342	118054.8077	0	0		118054.8077			
Orange (SC)	2025	SBUS	Aggregate	Aggregate	Natural Gas	779.1807775	6364376.471	1473.213504	1473213.504		6364376.471			
Orange (SC)	2025	UBUS	Aggregate	Aggregate	Gasoline	256.3483478	13828658.34	1132.165713	1132165.713	13325370.85	13828658.34	50160723.72	3.76	UBUS
Orange (SC)	2025	UBUS	Aggregate	Aggregate	Electricity	4.037405551	25414.45858	0	0		25414.45858			
Orange (SC)	2025	UBUS	Aggregate	Aggregate	Natural Gas	577.6938563	36306650.92	12193.20514	12193205.14		36306650.92			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Gasoline	5.642094151	180736.7049	40.83151741	40831.51741	70503709.12	180736.7049	437137129.3	6.20	HHDT
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Diesel	11688.1985	404345567.2	65859.40937	65859409.37		404345567.2			
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Electricity	144.7973925	4565346.475	0	0		4565346.475			
Orange (SC)	2026	HHDT	Aggregate	Aggregate	Natural Gas	1447.890886	28045478.92	4603.468231	4603468.231		28045478.92			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Gasoline	1049515.92	14427540707	460205.4939	460205493.9	470085975.8	14427540707	16362022710	34.81	LDA
Orange (SC)	2026	LDA	Aggregate	Aggregate	Diesel	2742.173139	27885673.79	639.5560923	639556.0923		27885673.79			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Electricity	81098.87481	1340199042	0	0		1340199042			
Orange (SC)	2026	LDA	Aggregate	Aggregate	Plug-in Hybric	35696.79687	566397286.5	9240.925739	9240925.739		566397286.5			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Gasoline	95040.06341	1177116103	45120.45791	45120457.91	45197280.94	1177116103	1187953479	26.28	LDT1
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Diesel	24.49979621	125912.9941	5.257047435	5257.047435		125912.9941			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Electricity	361.8710153	5882191.174	0	0		5882191.174			
Orange (SC)	2026	LDT1	Aggregate	Aggregate	Plug-in Hybric	270.687928	4829272.119	71.56598243	71565.98243		4829272.119			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Gasoline	536812.5168	7559102644	294891.677	294891677	297315447.9	7559102644	7751835028	26.07	LDT2
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Diesel	2150.46559	30698067.92	920.2352206	920235.2206		30698067.92			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Electricity	5257.386579	65323861.38	0	0		65323861.38			
Orange (SC)	2026	LDT2	Aggregate	Aggregate	Plug-in Hybric	5706.320321	96710455.56	1503.535682	1503535.682		96710455.56			
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Gasoline	41098.7832	541968311.9	37057.75938	37057759.38	52307866.85	541968311.9	879241032.5	16.81	LHDT1
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Diesel	23010.07791	319326618.4	15250.10747	15250107.47		319326618.4			
Orange (SC)	2026	LHDT1	Aggregate	Aggregate	Electricity	815.1958673	17946102.16	0	0		17946102.16			
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Gasoline	6615.094062	80997974.67	6368.807747	6368807.747	14158056.26	80997974.67	223491989.5	15.79	LHDT2
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Diesel	10012.14742	138075351.1	7789.248518	7789248.518		138075351.1			
Orange (SC)	2026	LHDT2	Aggregate	Aggregate	Electricity	211.0818991	4418663.747	0	0		4418663.747			
Orange (SC)	2026	MCY	Aggregate	Aggregate	Gasoline	51778.70958	114576754.6	2699.165187	2699165.187	2699165.187	114576754.6	114576754.6	42.45	MCY
Orange (SC)	2026	MDV	Aggregate	Aggregate	Gasoline	326894.2358	4404505018	211684.7702	211684770.2	215083753	4404505018	4593591594	21.36	MDV
Orange (SC)	2026	MDV	Aggregate	Aggregate	Diesel	4570.655518	61507656.69	2476.477766	2476477.766		61507656.69			
Orange (SC)	2026	MDV	Aggregate	Aggregate	Electricity	5641.41152	70050394.64	0	0		70050394.64			
Orange (SC)	2026	MDV	Aggregate	Aggregate	Plug-in Hybric	3648.256691	57528524.71	922.5050569	922505.0569		57528524.71			
Orange (SC)	2026	MH	Aggregate	Aggregate	Gasoline	5656.411647	18202469.21	3725.150697	3725150.697	4674511.636	18202469.21	27838958.42	5.96	MH
Orange (SC)	2026	MH	Aggregate	Aggregate	Diesel	3003.794796	9636489.216	949.3609386	949360.9386		9636489.216			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Gasoline	7090.881325	118350128.8	22649.98553	22649985.53	63445365.02	118350128.8	492230991	7.76	MHDT
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Diesel	28484.43632	363024343	40301.72863	40301728.63		363024343			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Electricity	416.2854567	6665407.367	0	0		6665407.367			
Orange (SC)	2026	MHDT	Aggregate	Aggregate	Natural Gas	292.2448194	4191111.92	493.6508571	493650.8571		4191111.92			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Gasoline	819.5446697	11023612.01	2081.091226	2081091.226	3725856.725	11023612.01	23579209.01	6.33	OBUS
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Diesel	495.7657654	10714021.15	1469.472549	1469472.549		10714021.15			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Electricity	9.821208849	239625.8909	0	0		239625.8909			
Orange (SC)	2026	OBUS	Aggregate	Aggregate	Natural Gas	92.91719861	1601949.96	175.2929507	175292.9507		1601949.96			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Gasoline	688.5633033	10173769.38	1135.020524	1135020.524	3318338.175	10173769.38	21939322.59	6.61	SBUS
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Diesel	756.2070806	5029135.279	676.6054259	676605.4259		5029135.279			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Electricity	19.66639619	195898.6058	0	0		195898.6058			
Orange (SC)	2026	SBUS	Aggregate	Aggregate	Natural Gas	808.8277787	6540519.327	1506.712226	1506712.226		6540519.327			
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Gasoline	256.8740368	13856970.44	1135.993315	1135993.315	13352123.91	13856970.44	50260632.86	3.76	UBUS
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Electricity	4.037405551	25414.45858	0	0		25414.45858			
Orange (SC)	2026	UBUS	Aggregate	Aggregate	Natural Gas	578.8563618	36378247.96	12216.1306	12216130.6		36378247.96			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2027
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Gasoline	5.373929496	179118.8411	39.81623999	39816.23999	70367147.17	179118.8411	444718421.9	6.32	HHDT
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Diesel	11908.96955	408437320.1	65681.78424	65681784.24		408437320.1			
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Electricity	233.8771255	7368297.488	0	0		7368297.488			
Orange (SC)	2027	HHDT	Aggregate	Aggregate	Natural Gas	1499.6845	28733685.44	4645.546691	4645546.691		28733685.44			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Gasoline	1043775.809	14366554455	449765.6728	449765672.8	459772935.6	14366554455	16398392110	35.67	LDA
Orange (SC)	2027	LDA	Aggregate	Aggregate	Diesel	2455.862765	25096507.07	569.8945405	569894.5405		25096507.07			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Electricity	86904.1211	1419031069	0	0		1419031069			
Orange (SC)	2027	LDA	Aggregate	Aggregate	Plug-in Hybric	37476.38962	587710079.4	9437.368291	9437368.291		587710079.4			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Gasoline	93827.3378	1163063801	43873.13762	43873137.62	43965075.48	1163063801	1176595396	26.76	LDT1
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Diesel	11.77289151	62874.22025	2.531551723	2531.551723		62874.22025			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Electricity	446.5153511	7377675.194	0	0		7377675.194			
Orange (SC)	2027	LDT1	Aggregate	Aggregate	Plug-in Hybric	345.6382808	6091045.589	89.40630797	89406.30797		6091045.589			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Gasoline	543469.3082	7640990252	292305.4074	292305407.4	294876245	7640990252	7857821071	26.65	LDT2
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Diesel	2178.395085	30849624.48	910.6360006	910636.0006		30849624.48			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Electricity	6350.417939	77875470.37	0	0		77875470.37			
Orange (SC)	2027	LDT2	Aggregate	Aggregate	Plug-in Hybric	6479.43822	108105723.9	1660.201601	1660201.601		108105723.9			
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Gasoline	40902.86203	538777359.5	36189.25551	36189255.51	51663019.19	538777359.5	893922359.9	17.30	LHDT1
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Diesel	23584.12171	325381918.6	15473.76368	15473763.68		325381918.6			
Orange (SC)	2027	LHDT1	Aggregate	Aggregate	Electricity	1389.11065	29763081.76	0	0		29763081.76			
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Gasoline	6543.090594	79860820.09	6177.798241	6177798.241	14127831.55	79860820.09	229001133.3	16.21	LHDT2
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Diesel	10371.194	141785670.3	7950.033304	7950033.304		141785670.3			
Orange (SC)	2027	LHDT2	Aggregate	Aggregate	Electricity	360.8389761	7354642.935	0	0		7354642.935			
Orange (SC)	2027	MCY	Aggregate	Aggregate	Gasoline	52507.36673	115951351.2	2728.982541	2728982.541	2728982.541	115951351.2	115951351.2	42.49	MCY
Orange (SC)	2027	MDV	Aggregate	Aggregate	Gasoline	328296.2492	4424771562	208501.4282	208501428.2	211924062.1	4424771562	4632281488	21.86	MDV
Orange (SC)	2027	MDV	Aggregate	Aggregate	Diesel	4528.513812	60488859.41	2401.269504	2401269.504		60488859.41			
Orange (SC)	2027	MDV	Aggregate	Aggregate	Electricity	6724.905683	82318049.16	0	0		82318049.16			
Orange (SC)	2027	MDV	Aggregate	Aggregate	Plug-in Hybric	4138.74125	64703018.28	1021.364342	1021364.342		64703018.28			
Orange (SC)	2027	MH	Aggregate	Aggregate	Gasoline	5494.773608	17832406.03	3652.927793	3652927.793	4597820.686	17832406.03	27425878.7	5.96	MH
Orange (SC)	2027	MH	Aggregate	Aggregate	Diesel	3015.208329	9593472.674	944.8928934	944892.8934		9593472.674			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Gasoline	6899.471297	112449723.8	21407.12697	21407126.97	62066322.45	112449723.8	490732557.6	7.91	MHDT
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Diesel	28843.00512	362788382	40151.9878	40151987.8		362788382			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Electricity	705.0961221	11173514.01	0	0		11173514.01			
Orange (SC)	2027	MHDT	Aggregate	Aggregate	Natural Gas	307.5844694	4320937.743	507.2076739	507207.6739		4320937.743			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Gasoline	799.5744215	10671989.18	1986.027209	1986027.209	3618122.083	10671989.18	23433998	6.48	OBUS
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Diesel	507.6740734	10757245.33	1455.904179	1455904.179		10757245.33			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Electricity	15.63862172	377509.5672	0	0		377509.5672			
Orange (SC)	2027	OBUS	Aggregate	Aggregate	Natural Gas	96.22385011	1627253.922	176.1906952	176190.6952		1627253.922			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Gasoline	695.8799126	10284257.45	1143.661126	1143661.126	3322523.321	10284257.45	22092333.13	6.65	SBUS
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Diesel	723.187469	4805004.883	643.8868326	643886.8326		4805004.883			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Electricity	31.29977754	312644.8282	0	0		312644.8282			
Orange (SC)	2027	SBUS	Aggregate	Aggregate	Natural Gas	836.1689696	6690425.97	1534.975363	1534975.363		6690425.97			
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Gasoline	257.3894016	13884827.24	1064.851026	1064851.026	13295227.63	13884827.24	50361672.36	3.79	UBUS
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Electricity	4.076617891	26232.20717	0	0		26232.20717			
Orange (SC)	2027	UBUS	Aggregate	Aggregate	Natural Gas	579.9899791	36450612.92	12230.37661	12230376.61		36450612.92			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Orange (SC)
Calendar Year: 2028
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Gasoline	5.168598081	177168.5685	38.73812443	38738.12443	69975520.55	177168.5685	452485723.7	6.47	HHDT
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Diesel	12073.80099	411729014.8	65249.02926	65249029.26		411729014.8			
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Electricity	359.8993539	11283837.21	0	0		11283837.21			
Orange (SC)	2028	HHDT	Aggregate	Aggregate	Natural Gas	1544.334811	29295703.11	4687.753162	4687753.162		29295703.11			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Gasoline	1038995.892	14318374161	439764.4547	439764454.7	449850859.3	14318374161	16440848388	36.55	LDA
Orange (SC)	2028	LDA	Aggregate	Aggregate	Diesel	2171.612574	22538563.56	504.5378234	504537.8234		22538563.56			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Electricity	92523.87745	1494097260	0	0		1494097260			
Orange (SC)	2028	LDA	Aggregate	Aggregate	Plug-in Hybric	39072.49176	605838403.2	9581.866781	9581866.781		605838403.2			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Gasoline	92684.36641	1149740526	42629.93643	42629936.43	42740464.15	1149740526	1166388371	27.29	LDT1
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Diesel	6.507772921	36839.23803	1.417524587	1417.524587		36839.23803			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Electricity	546.4474323	9120928.353	0	0		9120928.353			
Orange (SC)	2028	LDT1	Aggregate	Aggregate	Plug-in Hybric	430.0680074	7490077.602	109.1101995	109110.1995		7490077.602			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Gasoline	549816.574	7714066571	289374.5804	289374580.4	292090150.1	7714066571	7956035573	27.24	LDT2
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Diesel	2199.451121	30941221.93	897.5586182	897558.6182		30941221.93			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Electricity	7541.699421	91347170.22	0	0		91347170.22			
Orange (SC)	2028	LDT2	Aggregate	Aggregate	Plug-in Hybric	7280.311558	119680610	1818.011071	1818011.071		119680610			
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Gasoline	40643.11047	533637589.3	35286.77625	35286776.25	50883865.52	533637589.3	908341552	17.85	LHDT1
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Diesel	24055.01767	329314493.2	15597.08927	15597089.27		329314493.2			
Orange (SC)	2028	LHDT1	Aggregate	Aggregate	Electricity	2171.230816	45389469.54	0	0		45389469.54			
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Gasoline	6462.82446	78515185.21	5985.809008	5985809.008	14043596.69	78515185.21	234287621	16.68	LHDT2
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Diesel	10682.49761	144518300.4	8057.787678	8057787.678		144518300.4			
Orange (SC)	2028	LHDT2	Aggregate	Aggregate	Electricity	565.7731753	11254135.44	0	0		11254135.44			
Orange (SC)	2028	MCY	Aggregate	Aggregate	Gasoline	53242.81767	117244778.4	2752.477751	2752477.751	2752477.751	117244778.4	117244778.4	42.60	MCY
Orange (SC)	2028	MDV	Aggregate	Aggregate	Gasoline	329659.4277	4443149037	205175.471	205175471	208610461.2	4443149037	4668969069	22.38	MDV
Orange (SC)	2028	MDV	Aggregate	Aggregate	Diesel	4475.198106	59400185.72	2318.632161	2318632.161		59400185.72			
Orange (SC)	2028	MDV	Aggregate	Aggregate	Electricity	7844.227849	94707365.32	0	0		94707365.32			
Orange (SC)	2028	MDV	Aggregate	Aggregate	Plug-in Hybric	4626.528268	71712481.17	1116.357982	1116357.982		71712481.17			
Orange (SC)	2028	MH	Aggregate	Aggregate	Gasoline	5341.240362	17485492.47	3581.413853	3581413.853	4521916.703	17485492.47	27031318.59	5.98	MH
Orange (SC)	2028	MH	Aggregate	Aggregate	Diesel	3021.622086	9545826.122	940.5028505	940502.8505		9545826.122			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Gasoline	6678.491886	106150769.7	20080.09422	20080094.22	60333013.62	106150769.7	489267523.9	8.11	MHDT
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Diesel	29046.88357	360668818.6	39734.34969	39734349.69		360668818.6			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Electricity	1140.526504	18029501.12	0	0		18029501.12			
Orange (SC)	2028	MHDT	Aggregate	Aggregate	Natural Gas	320.8747289	4418434.47	518.5697057	518569.7057		4418434.47			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Gasoline	782.1654895	10304986.33	1899.162317	1899162.317	3521504.104	10304986.33	23342155.63	6.63	OBUS
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Diesel	518.0754068	10802702.49	1445.731607	1445731.607		10802702.49			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Electricity	24.44236773	585584.2699	0	0		585584.2699			
Orange (SC)	2028	OBUS	Aggregate	Aggregate	Natural Gas	99.23244446	1648882.535	176.6101798	176610.1798		1648882.535			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Gasoline	700.6254389	10354994.83	1148.048854	1148048.854	3315571.216	10354994.83	22227180.94	6.70	SBUS
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Diesel	688.6435349	4575063.301	610.5053466	610505.3466		4575063.301			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Electricity	48.55751581	487881.4202	0	0		487881.4202			
Orange (SC)	2028	SBUS	Aggregate	Aggregate	Natural Gas	860.7431203	6809241.384	1557.017016	1557017.016		6809241.384			
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Gasoline	257.9047648	13912684.03	1066.996746	1066996.746	13275316.68	13912684.03	50462711.86	3.80	UBUS
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Electricity	1.844789609	31353.57774	0	0		31353.57774			
Orange (SC)	2028	UBUS	Aggregate	Aggregate	Natural Gas	583.3946385	36518674.25	12208.31993	12208319.93		36518674.25			

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