



Cypress Grove

Energy Impact Analysis

Prepared for
City of Tustin, Planning Division

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1 INTRODUCTION

This Energy Analysis evaluates the potential impacts of the proposed Cypress Grove Project (proposed Project). The Project is located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The proposed site is located in the northeastern portion of the City of Tustin (City), bordered to the west by Prospect Avenue, to the south by 17th Street, to the east by Howland Way, and to the north by Arbolada Way. The Project site, located at 17852 17th Street in Tustin, spans 8.54 acres and consists of five parcels (APNs 401-401-12 through -17) with multiple addresses: 17772, 17862, 17822, 17782, and 17852 17th Street. Regional access to the site is available via State Route 55 (SR 55), approximately 0.5 miles west of the site. Local access to the site is provided via Prospect Avenue and 17th Street. The regional location of the Project site and aerial image are provided in Figure 1 and Figure 2, respectively.

The Project site is developed with five office buildings totaling 193,000 square feet (SF). The four outer buildings are two stories in height, and the central building is four stories. The Project proposes to demolish the existing site for the development of 145 for-sale residential units, consisting of 62 single-family cluster units and 83 townhome-style residential condominium units which would result in an average net density of 17.06 dwelling units per acre (du/ac) across the Project site. The Project would also include construction of one driveway entrance from Prospect Avenue, an internal access drive, one recreational common space area for resident use, and additional stormwater and utility improvements to accommodate proposed residences. The conceptual site plan is provided in Figure 3.

The Project site has a General Plan land use designation of Planned Community Commercial/Business (PCCB) and a zoning designation of Planned Community Commercial (PC COM). The PCCB land use designation provides opportunities for a variety of miscellaneous retail, professional office, and service-oriented business activities. The PC COM zoning classification is intended to allow diversification of the relationships of various buildings, structures and open spaces in planned building groups while ensuring substantial compliance with the district regulations and other provisions of the Planned Community District zone.

1.1 Purpose of the Report

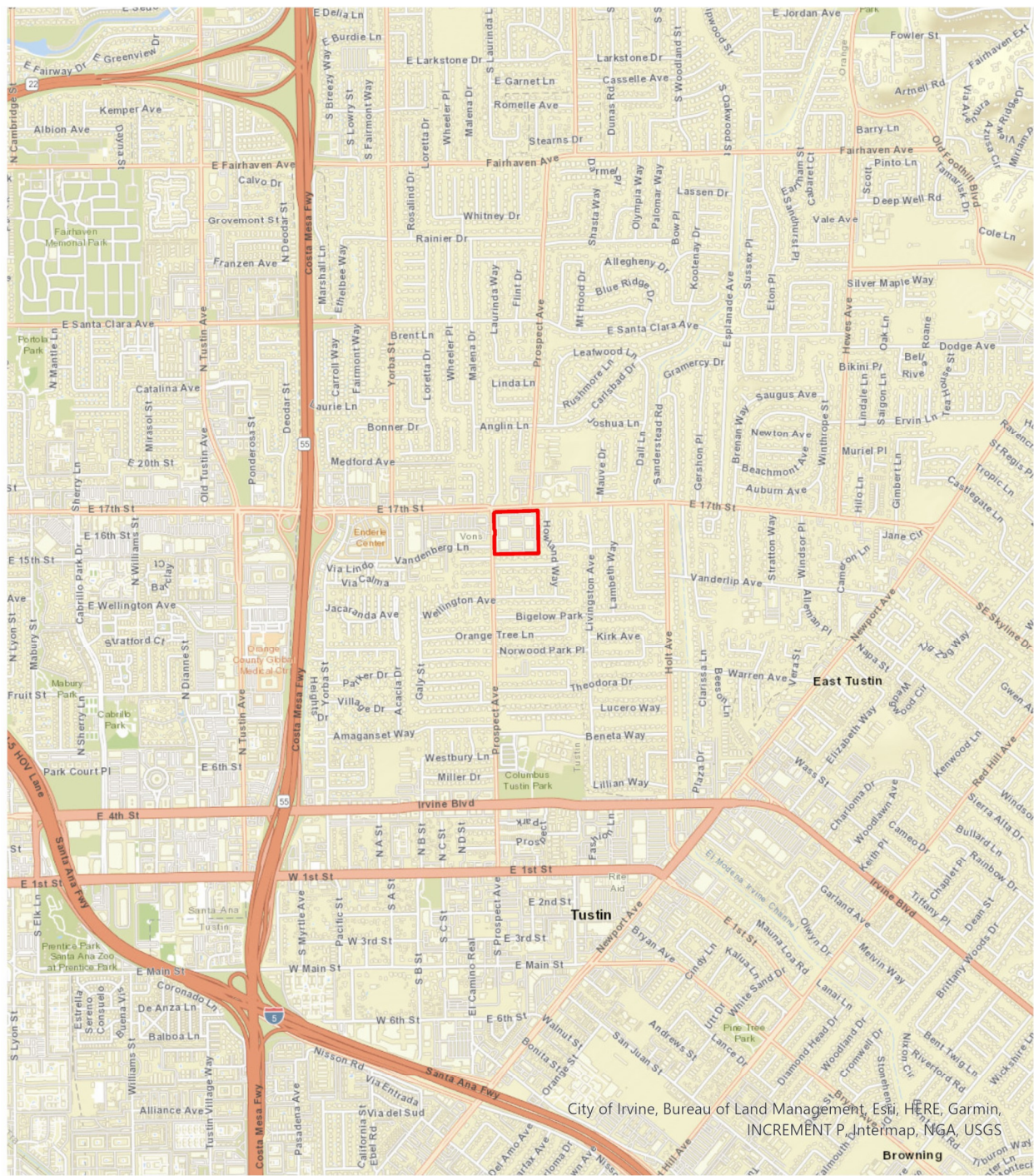
To support the CEQA document for the proposed Project, this report analyzes the proposed Project's energy usage using the California Emissions Estimator Model (CalEEMod) Version 2022.1 land use emission model and data from the 2021 Emissions FACTor model (EMFAC).

1.2 Conclusions

The proposed Project has no unusual characteristics that would cause the construction fuel and energy consumption to be less efficient compared to other similar construction sites throughout the state. The construction-related consumption would be temporary and localized. Operation of the proposed residences would comply with all energy efficiency requirements under Title 24 and all applicable City energy regulations, as verified by the City through the permitting process. The Project would install photovoltaic solar panels on all proposed single-family residences, pursuant to current Title 24 requirements. Therefore, the Project would not inhibit the use of and would allow for future developments to renewable energy. In

addition, in comparison to the existing site uses, the proposed Project would result in a reduction in energy consumption. Therefore, the construction and operation of the Project would not result in inefficient, wasteful, or unnecessary energy use, nor would it impede the growth of future renewable energy developments, and impacts would be less than significant with no mitigation required.

Figure 1: Project Location



Legend

 Project Site

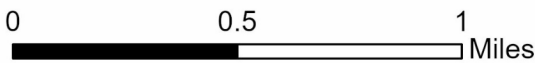


Figure 2: Project Aerial



Legend

 Project Site

0 250 500 Feet



Figure 3: Conceptual Site Plan



Source: (Kevin L. Crook Architect Inc, 2025)

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2 ENERGY

2.1 Environmental Setting

The operation of the proposed Project would consume energy from three main sources: electricity, natural gas, and transportation.

Electricity

Electricity in the Project area is provided by Southern California Edison (SCE), which serves 15 million people across a 50,000 square mile service area. SCE sources its energy from a mix of renewable and non-renewable resources to ensure grid reliability while supporting California's clean energy goals.

According to the 2023 Power Content Label Mix (California Energy Commission, 2023), SCE's energy supply source mix includes:

- 37.6 percent of power from eligible renewable sources, which include biomass and biowaste, geothermal, eligible hydroelectric, solar, and wind resources
- 4.5 percent of power from large hydroelectric resources
- 20 percent of power from natural gas resources
- 9.1 percent of power from nuclear resources
- 0.1 percent of power from other resources
- 28.8 percent of power from unspecified resources, which have been purchased through open market transactions

The California Independent Service Operator (ISO) is a nonprofit public benefit corporation that is tasked with the operation of California's power grid and is responsible for maintaining grid reliability. The ISO is also responsible for approving improvements and additions to the power grid required to accommodate the State's electrical needs. The ISO works with other western US states to ensure grid reliability in cases of over and under production within the state. The most recent data available for electricity usage from the California Energy Commission is from 2022. The County of Orange consumed approximately 20,243 millions of kilowatt-hours (GWh) of electricity, with 12,414 GWh consumed by non-residential uses and 7,830 GWh consumed by residential uses (California Energy Commission, 2022).

Natural Gas

The proposed Project and surrounding area is served by Southern California Gas Company (SoCalGas), which serves 5.67 million customers. The California Public Utilities Commission (CPUC) serves as the regulator of natural gas for SoCalGas, Pacific Gas & Electric, San Diego Gas & Electric (SDG&E), and several smaller and independent utilities and storage operators.

Natural gas is supplied by both in-state and out-of-state sources, allocated by market supply and demand. The CPUC is tasked with overseeing the purchase and transmission of natural gas by working with in-state

sources and the Federal Energy Regulatory Commission to acquire out-of-state sources through multiple interstate and international pipelines.

According to the *2024 California Gas Report*, the 2023 Gas Supply Taken for SoCalGas in million cubic feet per day (MMcf/d) was as follows (California Gas and Electric Utilities, 2024):

- Total Core Customers – demand was 948 MMcf/d
 - Residential – 621 MMcf/d
 - Commercial – 224 MMcf/d
 - Industrial – 53 MMcf/d
 - Natural Gas Vehicles – 50 MMcf/d
- Total Noncore Customers – demand was 1,073 MMcf/d
 - Commercial – 61 MMcf/d
 - Industrial – 363 MMcf/d
 - Enhanced Oil Recovery Steaming – 26 MMcf/d
 - Electric Generation – 623 MMcf/d
- Wholesale/International Customers – demand was 359 MMcf/d
- Total Transportation and Exchange – demand was 1,504 MMcf/d

Transportation Energy Resources

In addition to consuming electricity and natural gas, the construction and operation of the Project would consume fuel for transportation, predominately petroleum (gasoline and diesel fuel). As of January 2025, the California Department of Motor Vehicles stated that there were 35.9 million registered vehicles in California. Of this total, Orange County had 2,952,614 vehicles registered, inclusive of 2,363,684 automobiles, 413,583 trucks, 119,777 trailers, and 55,570 motorcycles (California Department of Motor Vehicles, 2025). Using fuel consumption estimates from EMFAC 2021, diesel and gasoline consumption of on-road vehicles in Orange County for 2025 would total 136,337,459 gallons and 1,088,796,204 gallons, respectively.

2.2 Regulatory Setting

Energy use and consumption are regulated by federal and State agencies. The federal agencies that impact energy policies and programs include the United States Department of Transportation, United States Department of Energy, and the USEPA. The State agencies that impact energy policies include the CPUC and California Energy Commission.

Federal

Energy Independence and Security Act, Corporate Average Fuel Efficiency Standards

On December 19, 2007, the Energy Independence and Security Act of 2007 was signed into law, requiring an increased Corporate Average Fuel Economy (CAFE) standard of 35 miles per gallon (mpg) for the combined fleet of cars and light trucks by the 2020 model year.

In addition to setting increased CAFE standards for motor vehicles, the Energy Independence and Security Act includes the following additional provisions:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

Additional provisions of the Act address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under this Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Corporate Average Fuel Economy (CAFE) Standards

On March 31, 2022, the National Highway Traffic Safety Administration (NHTSA) finalized the Corporate Average Fuel Economy (CAFE) standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between the model years 2030 to 2050.

State

California Building Energy Efficiency Standards

Title 24, Part 6, California Energy Code

The 2022 Energy Code was approved by the California Energy Commission on August 11, 2021. Buildings whose permit applications are applied for on or after January 1, 2023 (and prior to future updates), must comply with the 2022 Energy Code. The 2022 Title 24 standards result in less energy use, thereby reducing air pollutant emissions associated with energy consumption. Title 24 standards require solar ready photovoltaic system roofs and encourage demand responsive technologies for new residential and industrial structures.

Title 24, Part 11, California Green Building Standards Code (CALGreen)

Title 24, Part 11 (CALGreen) focuses on promoting sustainable building practices in California. It outlines mandatory measures for energy efficiency, water conservation, material conservation, and indoor environmental quality in both residential and non-residential construction projects. CALGreen aims to reduce the environmental impact of buildings, enhance occupant health and comfort, and encourage resource

efficiency throughout the State's building industry. CALGreen was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The current version of CALGreen is the 2022 California Green Building Standards Code, effective January 1, 2023. The 2022 CALGreen Building Standards Code has been adopted by the City of Tustin by reference as stated in Municipal Code Section 8100.

Assembly Bill (AB) 1493 Pavley Fuel Efficiency Regulations

California AB 1493 required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Although aimed at reducing GHG emissions, the Pavley standards implement improvements in fuel efficiency that results in a reduction in fuel consumption.

California Renewable Portfolio Standard

These standards require retail sellers of electric services to provide 33% of total retail sales of electricity from renewable resources by 2020.

Clean Energy and Pollution Reduction Act of 2015

The standards implemented by this Act (Senate Bill [SB] 350) require the State to conduct the following:

- 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.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

Local

City of Tustin General Plan

The City of Tustin addresses energy in the Conservation, Open Space, and Recreation Element of the City of Tustin General Plan. The Conservation, Open Space, and Recreation Element contains policies that work to reduce energy consumption. The following policies are applicable to the Project.

Goal 4: Reduce emissions through reduced energy consumption.

Policy 4.1: Promote energy conservation in all sectors of the City including residential, commercial, and industrial.

Policy 4.2: Promote local recycling of wastes and the use of recycled materials.

Goal 11: Conserve energy resources through use of available energy technology and conservation practices.

Policy 11.2: Maintain local legislation to establish, update and implement energy performance building code requirements established under State Title 24 Energy Regulations.

Tustin City Code

Tustin City Code Article 8, Section 8100, *Building and Construction Codes Adopted by Reference by the City*, includes adoption of 2022 California Energy Code (Title 24, Part 6), The 2022 California Green Building Standards Code (Title 24, Part 11), and 2022 California Building Code (Title 24, Part 2), as well as other state standards.

2.3 Thresholds of Significance

The State CEQA Guidelines do not have specific thresholds for energy consumption. Rather, the question in Appendix G, VI Energy (a) asks, “[Would the project] Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?” and (b) asks, “[Would the project] Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?” Therefore, for the purpose of this analysis, a significant impact would occur if:

- (a) The Project design and/or location encourages wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, as well as the use of fuel by vehicles anticipated to travel to and from the project; or
- (b) The project design impedes the growth of future renewable energy developments.

2.4 Methodology

Emission Calculations

The following assumptions were used to calculate the energy consumption of the proposed Project:

- The SCE would provide energy for the Project’s construction and operation;
- Construction equipment fuel consumption was derived from the CARB OffRoad2021 emission model;
- Fuel consumption from vehicle travel was derived from the CARB EMFAC2021 emission model; and
- Electricity, natural gas, and fuel usage was derived from CalEEMod Version 2022.1.

Emission Factors Model

In January 2021, the 2021 version of the Emissions FACtor model (EMFAC) web database for use in SIP and transportation conformity analyses was released. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, vehicle miles traveled (VMT) from motor vehicles that operate on highways, freeways, and local roads in California and is used by the CARB. EMFAC2021 is incorporated into CalEEMod 2022.1, and thus, included in the modeling that is provided in Appendix A.

California Emissions Estimator Model

CalEEMod (Version 2022.1) was used to calculate operational energy consumption from the proposed Project, attached as Appendix A. In addition, the existing site conditions were modeled to obtain net operational energy consumption. The construction schedule analyzed is shown below in Table 1.

Table 1: Construction Schedule

Activity	Start Date	End Date	Total Working Days
Demolition	6/1/2026	7/10/2026	75
Site Preparation	7/11/2026	7/24/2026	10
Grading	7/25/2026	8/21/2026	20
Building Construction	8/22/2026	7/9/2027	230
Paving	7/10/2027	8/6/2027	20
Architectural Coating	8/7/2027	9/10/2027	25

Source: CalEEMod Output Sheets (Appendix A)

The following non-default model assumptions were incorporated into the analysis for the proposed Project:

- **Construction Land Use:** The lot acreage and building area was adjusted to fit the conceptual site plans provided for the proposed Project. Landscaping for the entire site was accounted for within the Singe Family Housing land use lot acreage.
- **Construction Phases:** The demolition phase was extended from 20 days to 75 days due to the extent of demolition needed for the existing multi-story office buildings. In addition, the architectural phase was extended from 20 days to 25 days due to the proposed number of buildings.
- **Construction Offroad Equipment:** All construction equipment was conservatively assumed to operate for 8 hours a day. Tractors/loaders/backhoes were replaced with crawler tractors to accurately assess site disturbance during the site preparation and grading phases. Diesel-powered crushing equipment was added to the demolition phase to account for onsite crushing. Diesel-powered "Other construction equipment" was also added to the site preparation phase to account for wood chipping onsite due to tree removal.
- **Construction Offroad Equipment Emission Factors:** Emissions factors for diesel crushing equipment were input using EMFAC OFFROAD2021 values for the Orange County subarea, 2026. However, due to a bug in CalEEMod, emissions resulting from the crushing equipment were hand calculated (included as Appendix B) and added to the total demolition phase emissions.
- **Construction Demolition:** Demolition waste tonnage was estimated based on the dimensions of all existing hardscape and building material. In addition, this report conservatively assumes all waste would be and hauled off-site.
- **Vehicle trip rates** were updated to reflect the Institute of Transportation Engineers (ITE) *Trip Generation Handbook 11th Edition* rates (land use codes 210 and 220).
- Gas and propane fireplaces and woodstoves were removed as the proposed Project does not include these.

The following non-default model assumptions were incorporated into the analysis for the existing use:

- **Land Use:** The lot acreage and building area was adjusted to fit the site characteristics described in the environmental site assessments for the Project site (AEI Consultants, 2024a; AEI Consultants, 2024b). Landscaping for the entire site was accounted for within the General Office Building land use lot acreage.
- **Vehicle trip rates** were updated to reflect the Institute of Transportation Engineers (ITE) *Trip Generation Handbook 11th Edition* rates (land use code 710).

- Gas and propane fireplaces and woodstoves were removed as the existing site does not include these.

2.5 Project Impacts

Project Fuel Consumption

Construction Consumption

Electricity and Natural Gas Usage

Due to the Project size and the fact that construction is temporary, electricity used during Project construction would be substantially less than that required for Project operation and would have a negligible contribution to the Project's overall energy consumption. The electric power used would be for as-necessary construction tools, lighting, and electronic equipment such as computers used inside temporary construction trailers. Natural gas is not anticipated to be needed for construction activities. Any consumption of natural gas would be minor and negligible in comparison to the operation of the proposed Project.

Petroleum Fuel Usage

The construction equipment associated with construction activities (off-road/heavy duty vehicles) would rely on diesel fuel, as would vendor and haul trucks involved in delivering building materials and removing the demolition debris from the Project site. Construction workers would travel to and from the Project site throughout the duration of construction; for a conservative analysis, it is assumed that construction workers would travel in gasoline-powered passenger vehicles.

Table 2, *Construction Equipment Fuel Usage*, lists the total fuel consumption and horsepower-hour data contained within the CARB OffRoad2021 emission model for specific types of diesel construction equipment. It should be noted that the total fuel consumption is a conservative analysis and would likely overstate the amount of fuel usage, as specific construction equipment is not expected to operate during the duration of the construction activity (e.g., crane). Table 3, *Estimated Project Construction Vehicle Fuel Usage*, summarizes the Project's construction vehicle fuel usage based on vehicle miles traveled and fuel usage factors contained in the CARB EMFAC2021. The trips included are those of worker vehicles, vendor vehicles, and haul vehicles. Table 4, *Total Construction Fuel Usage*, shows the overall fuel consumption for construction of the proposed Project. Fuel calculations can be found in Appendix C.

Table 2: Construction Equipment Fuel Usage

Activity	Equipment	Number	Hours per day	Horse-power	Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/Industrial Saws	1	8	33	0.73	75	14,454	0.04193738	606
	Excavators	3	8	36	0.38	75	24,624	0.05110175	1,258
	Rubber Tired Dozers	2	8	367	0.4	75	176,160	0.04695772	8,272
	Crushing/proc. Equipment	1	8	200	0.6	75	72,000	0.05064147	3,646
Site Preparation	Rubber Tired Dozers	3	8	367	0.4	10	35,232	0.046957715	1,654
	Crawler Tractors	4	8	84	0.37	10	9,946	0.05036589	501
	Other Construction Equipment	1	8	82	0.42	10	2,755	0.05135622	141
Grading	Excavators	1	8	36	0.38	20	2,189	0.05110175	112
	Graders	1	8	148	0.41	20	9,709	0.05205489	505
	Rubber Tired Dozers	1	8	367	0.4	20	23,488	0.04695772	1,103
	Crawler Tractors	3	8	87	0.43	20	17,957	0.06903799	1,240
Building Construction	Cranes	1	8	367	0.29	230	195,831	0.05349335	10,476
	Forklifts	3	8	82	0.2	230	90,528	0.03022371	2,736
	Generator Sets	1	8	14	0.74	230	19,062	0.06903799	1,316
	Tractors/Loaders/Backhoes	3	8	84	0.37	230	171,562	0.05163856	8,859
	Welders	1	8	46	0.45	230	38,088	0.05129285	1,954
Paving	Pavers	2	8	81	0.42	20	10,886	0.05360434	584
	Paving Equipment	2	8	89	0.36	20	10,253	0.05349335	548
	Rollers	2	8	36	0.38	20	4,378	0.029379007	129
Architectural Coating	Air Compressors	1	8	37	0.48	25	3552	0.029379007	104
								Total	45,744

Source: CalEEMod Output Sheets (Appendix A), Fuel Calculations (Appendix C)

Table 3: Estimated Project Construction Vehicle Fuel Usage

Construction Source	Total Number of Vehicles	VMT	Fuel Rate	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	2,538	103,328	6.14	16,830	0
Vendor Trucks	3,680	75,072	9.01	8,334	0
Worker Vehicles	21,665	801,605	28.61	0	28,023
Total				25,164	28,023

Source: CalEEMod Output Sheets (Appendix A), Fuel Calculations (Appendix C)

Table 4: Total Construction Fuel Usage

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
On-Road Construction Vehicles	25,164	28,023
Off-road Construction Equipment	45,744	0
Total	70,908	28,023
Orange County On-Road Vehicles	136,337,459	1,088,796,204
Orange County Off-Road Construction Equipment	14,157,699	977,564
On-Road Project Percentage	0.02%	0.003%
Off-Road Project Percentage	0.3%	-

Source: CalEEMod Output Sheets (Appendix A), Fuel Calculations (Appendix C)

Construction Energy Efficiency

CARB regulates emissions from construction equipment and the equipment used for Project construction would comply with CARB regulations and California fuel economy/emissions standards, which would be verified through the City's construction permitting process. The Project does not include any unusual construction processes that would require a substantial increased need for energy resources. As shown in Table 4, on-road construction vehicles from the proposed Project would account for 0.02 percent and 0.003 percent of diesel and gasoline consumption within Orange County in 2025, respectively. Off-road construction equipment from the proposed Project would account for 0.3 percent of diesel consumption within Orange County in 2025. The construction equipment and methods used by the Project would not be more energy intensive than typical construction activities.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, 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. Idling restrictions and the use of newer engines and

equipment would result in less fuel consumption and wasteful or unnecessary consumption of energy would not occur. Overall, Project construction would not result in inefficient, wasteful, or unnecessary consumption of energy.

Operational Consumption

Operational electricity and natural gas consumption were estimated with CalEEMod (see output sheets included as Appendix A). Default consumption values are calculated based on a project's land use subtypes, gross building square footage, and demand forecast zone. The gasoline consumption rates utilize the same assumptions that were used for worker vehicles, and can be found in Appendix C. The Project's gross and net energy consumption is provided in Table 5, *Project Annual Operational Energy Requirements*. Although the Project does not propose any natural gas connections, this analysis assumes default natural gas consumption to present the most conservative analysis. As compared to the existing general office use, the proposed Project would result in a decrease in electricity, natural gas, and gasoline consumption.

Table 5: Project Annual Operational Energy Requirements

Electricity (Kilowatt-Hours) Consumption		
Proposed Project	822,386	
Existing Site	3,618,241	
Natural Gas (Thousands British Thermal Units)		
Proposed Project	4,371,311	
Existing Site	4,891,868	
Petroleum (Gasoline) Consumption		
	Annual VMT	Gallons of Gasoline Fuel
Proposed Project	3,361,616	117,516
Existing Site	6,264,030	218,980
Net Total Energy Use		
Net Electricity (Kilowatt-Hours)		-2,795,855
Net Natural Gas (Thousands British thermal Units)		-520,557
Net Gasoline Consumption (Gallons)		-101,463

VMT = vehicle miles traveled

Source: CalEEMod Output Sheets (Appendix A), Fuel Calculations (Appendix C)

Future Renewable Energy Developments

The proposed Project would be required to meet the CCR Title 24 energy efficiency standards in effect during permitting of proposed Project and comply with all applicable City energy codes. The City's administration of the CCR Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. In addition, Project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. Furthermore, in compliance with current Title 24 requirements, the Project would install photovoltaic solar panels on all proposed single-family residences.

As such, the Project would not inhibit the use of and would allow for future developments relating to renewable energy.

2.6 Conclusion

The proposed Project has no unusual characteristics that would make the construction fuel and energy consumption associated with construction of the Project less efficient compared to other similar construction projects throughout the state. The energy consumption for construction would also be temporary and localized. Operation of the proposed Project would comply with all the energy efficiency requirements under Title 24 and all applicable City energy codes. The proposed Project would also result in a net decrease in consumption of electricity, natural gas, and gasoline compared to the existing office uses. Therefore, the construction and operation of the Project would not result in inefficient, wasteful, or unnecessary energy use. In addition, with compliance with the CCR Title 24 and City energy codes, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy.

Overall, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and the construction and operation of the Project would not result in inefficient, wasteful, or unnecessary energy use. Therefore, impacts related to energy would be less than significant and no mitigation would be required.

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APPENDIX A – CALEEMOD OUTPUT SHEETS

25-011 Proposed Cypress Grove Project v2 Detailed Report

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Data Field	Value
Project Name	25-011 Proposed Cypress Grove Project v2
Construction Start Date	6/1/2026
Operational Year	2027
Lead Agency	City of Tustin
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	2.20
Location	33.758903885169794, -117.82133906390618
County	Orange
City	Tustin
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5969
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Single Family Housing	62.0	Dwelling Unit	3.56	108,732	46,131	—	185	—

Condo/Townhouse	83.0	Dwelling Unit	1.76	159,696	0.00	—	247	—
Other Asphalt Surfaces	2.86	Acre	2.86	0.00	0.00	—	—	—
Parking Lot	40.0	Space	0.36	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.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	4.07	41.1	34.2	0.15	1.86	10.4	4.46	22,701
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	69.0	41.9	29.6	0.15	1.28	8.62	3.54	22,661
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	5.46	11.3	10.0	0.03	0.37	3.04	0.95	4,587
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	1.00	2.07	1.83	0.01	0.07	0.55	0.17	759
Exceeds (Daily Max)	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	150	55.0	—
Unmit.	No	No	No	No	—	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	150	55.0	—

Unmit.	No	No	No	No	—	No	No	—
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2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—
2026	4.07	41.1	34.2	0.15	1.86	10.4	4.46	22,701
2027	1.36	10.9	18.3	0.03	0.37	1.57	0.63	4,203
Daily - Winter (Max)	—	—	—	—	—	—	—	—
2026	2.47	41.9	29.6	0.15	1.28	8.62	3.54	22,661
2027	69.0	10.9	17.8	0.03	0.37	1.57	0.63	4,148
Average Daily	—	—	—	—	—	—	—	—
2026	0.95	11.3	10.0	0.03	0.37	3.04	0.95	4,587
2027	5.46	5.89	9.60	0.02	0.20	0.82	0.33	2,181
Annual	—	—	—	—	—	—	—	—
2026	0.17	2.07	1.83	0.01	0.07	0.55	0.17	759
2027	1.00	1.07	1.75	< 0.005	0.04	0.15	0.06	361

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	10.5	3.63	36.4	0.08	0.15	7.09	1.91	9,993
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	9.70	3.76	26.3	0.08	0.14	7.09	1.90	9,671
Average Daily (Max)	—	—	—	—	—	—	—	—

Unmit.	9.96	3.62	30.8	0.07	0.14	6.64	1.78	9,315
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	1.82	0.66	5.63	0.01	0.02	1.21	0.33	1,542
Exceeds (Daily Max)	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	150	55.0	—
Unmit.	No	No	No	No	—	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	150	55.0	—
Unmit.	No	No	No	No	—	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Mobile	3.43	2.36	27.6	0.07	0.04	6.99	1.80	7,479
Area	6.95	0.08	8.23	< 0.005	< 0.005	< 0.005	< 0.005	22.1
Energy	0.06	1.10	0.47	0.01	0.09	0.09	0.09	2,189
Water	—	—	—	—	—	—	—	83.8
Waste	—	—	—	—	—	—	—	208
Refrig.	—	—	—	—	—	—	—	1.92
Stationary	0.02	0.09	0.10	< 0.005	0.01	0.01	0.01	8.42
Total	10.5	3.63	36.4	0.08	0.15	7.09	1.91	9,993
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Mobile	3.40	2.57	25.7	0.07	0.04	6.99	1.80	7,179
Area	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.06	1.10	0.47	0.01	0.09	0.09	0.09	2,189
Water	—	—	—	—	—	—	—	83.8
Waste	—	—	—	—	—	—	—	208
Refrig.	—	—	—	—	—	—	—	1.92
Stationary	0.02	0.09	0.10	< 0.005	0.01	0.01	0.01	8.42
Total	9.70	3.76	26.3	0.08	0.14	7.09	1.90	9,671
Average Daily	—	—	—	—	—	—	—	—
Mobile	3.16	2.43	24.7	0.07	0.04	6.55	1.69	6,814
Area	6.72	0.05	5.64	< 0.005	< 0.005	< 0.005	< 0.005	15.1
Energy	0.06	1.10	0.47	0.01	0.09	0.09	0.09	2,189
Water	—	—	—	—	—	—	—	83.8
Waste	—	—	—	—	—	—	—	208
Refrig.	—	—	—	—	—	—	—	1.92
Stationary	0.01	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	2.88
Total	9.96	3.62	30.8	0.07	0.14	6.64	1.78	9,315
Annual	—	—	—	—	—	—	—	—
Mobile	0.58	0.44	4.51	0.01	0.01	1.19	0.31	1,128
Area	1.23	0.01	1.03	< 0.005	< 0.005	< 0.005	< 0.005	2.50
Energy	0.01	0.20	0.09	< 0.005	0.02	0.02	0.02	362
Water	—	—	—	—	—	—	—	13.9
Waste	—	—	—	—	—	—	—	34.5
Refrig.	—	—	—	—	—	—	—	0.32
Stationary	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	0.48
Total	1.82	0.66	5.63	0.01	0.02	1.21	0.33	1,542

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.29	20.7	19.0	0.03	0.84	0.84	0.78	3,438
Demolition	—	—	—	—	—	6.95	1.05	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	4.24	3.91	0.01	0.17	0.17	0.16	707
Demolition	—	—	—	—	—	1.43	0.22	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.77	0.71	< 0.005	0.03	0.03	0.03	117
Demolition	—	—	—	—	—	0.26	0.04	—
Onsite truck	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	0.92	0.00	0.00	0.23	0.05	231
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.13	10.3	4.55	0.06	0.11	2.39	0.75	9,052
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.17	0.00	0.00	0.05	0.01	45.8

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	2.21	0.94	0.01	0.02	0.49	0.15	1,858
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	< 0.005	7.58
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.40	0.17	< 0.005	< 0.005	0.09	0.03	308

3.3. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	4.00	36.3	33.1	0.05	1.86	1.86	1.71	5,872
Dust From Material Movement	—	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.99	0.91	< 0.005	0.05	0.05	0.05	161
Dust From Material Movement	—	—	—	—	—	0.16	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.17	< 0.005	0.01	0.01	0.01	26.6
Dust From Material Movement	—	—	—	—	—	0.03	0.01	—
Onsite truck	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	1.05	0.00	0.00	0.26	0.06	264
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	< 0.005	6.97
Vendor	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
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	1.15
Vendor	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

3.5. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16	19.1	19.1	0.03	1.04	1.04	0.96	3,146
Dust From Material Movement	—	—	—	—	—	2.28	0.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.16	19.1	19.1	0.03	1.04	1.04	0.96	3,146

Dust From Material Movement	—	—	—	—	—	2.28	0.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.04	1.05	< 0.005	0.06	0.06	0.05	172
Dust From Material Movement	—	—	—	—	—	0.13	0.05	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.19	< 0.005	0.01	0.01	0.01	28.5
Dust From Material Movement	—	—	—	—	—	0.02	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.79	0.00	0.00	0.20	0.05	198
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.28	22.0	9.73	0.12	0.24	5.10	1.60	19,358
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.68	0.00	0.00	0.20	0.05	188
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.26	22.8	9.81	0.12	0.24	5.10	1.60	19,328
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	< 0.005	10.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.26	0.54	0.01	0.01	0.28	0.09	1,060
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	1.73

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.10	< 0.005	< 0.005	0.05	0.02	175

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.44	1.90	< 0.005	0.06	0.06	0.05	356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.35	< 0.005	0.01	0.01	0.01	59.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.28	0.29	3.73	0.00	0.00	1.07	0.25	1,029
Vendor	0.01	0.52	0.25	< 0.005	< 0.005	0.14	0.04	507
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.52	0.00	0.00	0.14	0.03	141

Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.01	68.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.01	23.4
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	11.4
Hauling	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11	10.2	14.0	0.03	0.36	0.36	0.34	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.55	5.04	6.95	0.01	0.18	0.18	0.17	1,306
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.92	1.27	< 0.005	0.03	0.03	0.03	216
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.23	0.25	4.06	0.00	0.00	1.07	0.25	1,066
Vendor	0.01	0.48	0.24	< 0.005	< 0.005	0.14	0.04	498
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.23	0.25	3.49	0.00	0.00	1.07	0.25	1,012
Vendor	0.01	0.50	0.24	< 0.005	< 0.005	0.14	0.04	497
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.12	0.14	1.80	0.00	0.00	0.53	0.12	509
Vendor	< 0.005	0.25	0.12	< 0.005	< 0.005	0.07	0.02	246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.33	0.00	0.00	0.10	0.02	84.2
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	< 0.005	40.8
Hauling	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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.30	0.27	1,516
Paving	0.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.30	0.27	1,516
Paving	0.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.55	< 0.005	0.02	0.02	0.02	83.1
Paving	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	< 0.005	< 0.005	13.8
Paving	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.74	0.00	0.00	0.20	0.05	195
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.64	0.00	0.00	0.20	0.05	185
Vendor	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
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	< 0.005	10.3
Vendor	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
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	1.70

Vendor	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

3.13. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.11	1.50	< 0.005	0.03	0.03	0.02	179
Architectural Coatings	68.8	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.10	< 0.005	< 0.005	< 0.005	< 0.005	12.2
Architectural Coatings	4.71	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	2.03
Architectural Coatings	0.86	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Worker	0.05	0.05	0.70	0.00	0.00	0.21	0.05	202
Vendor	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
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	< 0.005	14.1
Vendor	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
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	2.33
Vendor	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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	1.76	1.21	14.1	0.04	0.02	3.58	0.92	3,832
Condo/Townhouse	1.67	1.15	13.4	0.04	0.02	3.41	0.88	3,647
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.43	2.36	27.6	0.07	0.04	6.99	1.80	7,479
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Single Family Housing	1.74	1.31	13.2	0.04	0.02	3.58	0.92	3,678
Condo/Townhouse	1.66	1.25	12.5	0.03	0.02	3.41	0.88	3,501
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	3.40	2.57	25.7	0.07	0.04	6.99	1.80	7,179
Annual	—	—	—	—	—	—	—	—
Single Family Housing	0.31	0.24	2.42	0.01	< 0.005	0.64	0.17	605
Condo/Townhouse	0.27	0.21	2.09	0.01	< 0.005	0.55	0.14	523
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.58	0.44	4.51	0.01	0.01	1.19	0.31	1,128

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	408
Condo/Townhouse	—	—	—	—	—	—	—	364
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	13.1
Total	—	—	—	—	—	—	—	785
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	408
Condo/Townhouse	—	—	—	—	—	—	—	364
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	13.1
Total	—	—	—	—	—	—	—	785
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	67.5
Condo/Townhouse	—	—	—	—	—	—	—	60.2
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	2.17
Total	—	—	—	—	—	—	—	130

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	0.04	0.60	0.26	< 0.005	0.05	0.05	0.05	764
Condo/Townhouse	0.03	0.50	0.21	< 0.005	0.04	0.04	0.04	641
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	1.10	0.47	0.01	0.09	0.09	0.09	1,405
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	0.04	0.60	0.26	< 0.005	0.05	0.05	0.05	764

Condo/Townhouse	0.03	0.50	0.21	< 0.005	0.04	0.04	0.04	641
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	1.10	0.47	0.01	0.09	0.09	0.09	1,405
Annual	—	—	—	—	—	—	—	—
Single Family Housing	0.01	0.11	0.05	< 0.005	0.01	0.01	0.01	126
Condo/Townhouse	0.01	0.09	0.04	< 0.005	0.01	0.01	0.01	106
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.20	0.09	< 0.005	0.02	0.02	0.02	233

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	5.76	—	—	—	—	—	—	—
Architectural Coatings	0.47	—	—	—	—	—	—	—
Landscape Equipment	0.72	0.08	8.23	< 0.005	< 0.005	< 0.005	< 0.005	22.1
Total	6.95	0.08	8.23	< 0.005	< 0.005	< 0.005	< 0.005	22.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	5.76	—	—	—	—	—	—	—

Architectural Coatings	0.47	—	—	—	—	—	—	—
Total	6.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.05	—	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—	—
Landscape Equipment	0.09	0.01	1.03	< 0.005	< 0.005	< 0.005	< 0.005	2.50
Total	1.23	0.01	1.03	< 0.005	< 0.005	< 0.005	< 0.005	2.50

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	37.9
Condo/Townhouse	—	—	—	—	—	—	—	45.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	83.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	37.9
Condo/Townhouse	—	—	—	—	—	—	—	45.8

Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	83.8
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	6.28
Condo/Townhouse	—	—	—	—	—	—	—	7.59
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	13.9

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	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	92.5
Condo/Townhouse	—	—	—	—	—	—	—	116
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	208
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	92.5
Condo/Townhouse	—	—	—	—	—	—	—	116

Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	208
Annual	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	15.3
Condo/Townhouse	—	—	—	—	—	—	—	19.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	—	34.5

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	0.78
Condo/Townhouse	—	—	—	—	—	—	—	1.14
Total	—	—	—	—	—	—	—	1.92
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Single Family Housing	—	—	—	—	—	—	—	0.78
Condo/Townhouse	—	—	—	—	—	—	—	1.14
Total	—	—	—	—	—	—	—	1.92
Annual	—	—	—	—	—	—	—	—

Single Family Housing	—	—	—	—	—	—	—	0.13
Condo/Townhouse	—	—	—	—	—	—	—	0.19
Total	—	—	—	—	—	—	—	0.32

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Emergency Generator	0.01	0.04	0.05	< 0.005	< 0.005	< 0.005	< 0.005	4.21
Fire Pump	0.01	0.04	0.05	< 0.005	< 0.005	< 0.005	< 0.005	4.21
Total	0.02	0.09	0.10	< 0.005	0.01	0.01	0.01	8.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Emergency Generator	0.01	0.04	0.05	< 0.005	< 0.005	< 0.005	< 0.005	4.21
Fire Pump	0.01	0.04	0.05	< 0.005	< 0.005	< 0.005	< 0.005	4.21
Total	0.02	0.09	0.10	< 0.005	0.01	0.01	0.01	8.42
Annual	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.38
Fire Pump	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.10
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	0.48

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—

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

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

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10T	PM2.5T	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
Demolition	Demolition	6/1/2026	9/11/2026	5.00	75.0	—
Site Preparation	Site Preparation	9/12/2026	9/25/2026	5.00	10.0	—
Grading	Grading	9/26/2026	10/23/2026	5.00	20.0	—
Building Construction	Building Construction	10/24/2026	9/10/2027	5.00	230	—
Paving	Paving	9/11/2027	10/8/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	10/9/2027	11/12/2027	5.00	25.0	—

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	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Crushing/Proc. Equipment	Diesel	Average	1.00	8.00	200	0.60
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43
Site Preparation	Other Construction Equipment	Diesel	Average	1.00	8.00	82.0	0.42
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37
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
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36

Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	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	17.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	126	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	20.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	269	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	82.1	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	15.5	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	16.4	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	543,567	181,189	0.00	0.00	8,416

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	37,698	—
Site Preparation	—	—	35.0	0.00	—
Grading	—	43,000	50.0	0.00	—
Paving	0.00	0.00	0.00	0.00	3.90

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	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Single Family Housing	0.68	0%
Condo/Townhouse	—	0%
Other Asphalt Surfaces	2.86	100%
Parking Lot	0.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	346	0.03	< 0.005
2026	0.00	346	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Single Family Housing	585	588	526	210,491	5,004	5,031	4,500	1,801,690
Condo/Townhouse	559	378	320	182,246	4,788	3,232	2,742	1,559,926
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	62
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	83
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)
543566.7	181,189	0.00	0.00	8,416

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)
Single Family Housing	427,499	346	0.0330	0.0040	2,376,791
Condo/Townhouse	381,150	346	0.0330	0.0040	1,994,520
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
Parking Lot	13,737	346	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)
Single Family Housing	2,326,590	730,736
Condo/Townhouse	3,114,629	0.00
Other Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Single Family Housing	49.1	—
Condo/Townhouse	61.3	—
Other Asphalt Surfaces	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	1.00	200	5.00	0.73
Fire Pump	Diesel	1.00	1.00	50.0	5.00	0.73

5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	10.5	annual days of extreme heat
Extreme Precipitation	4.00	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 $\frac{3}{4}$ 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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

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

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7
AQ-PM	71.2
AQ-DPM	18.7
Drinking Water	42.0
Lead Risk Housing	44.5
Pesticides	0.00
Toxic Releases	87.0
Traffic	31.6
Effect Indicators	—
CleanUp Sites	4.12
Groundwater	42.1
Haz Waste Facilities/Generators	40.1
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	21.7
Cardio-vascular	14.9
Low Birth Weights	4.08
Socioeconomic Factor Indicators	—
Education	24.1
Housing	40.9
Linguistic	12.3
Poverty	12.4
Unemployment	9.72

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	77.05633261
Employed	68.38188118
Median HI	78.01873476
Education	—
Bachelor's or higher	79.13512126
High school enrollment	24.48351084
Preschool enrollment	85.28166303
Transportation	—
Auto Access	49.51879892
Active commuting	8.161170281
Social	—
2-parent households	67.7659438
Voting	73.97664571
Neighborhood	—
Alcohol availability	89.13127165
Park access	61.41408957
Retail density	54.66444245
Supermarket access	60.86231233
Tree canopy	37.84165277
Housing	—
Homeownership	93.09636854
Housing habitability	34.8646221
Low-inc homeowner severe housing cost burden	40.02309765
Low-inc renter severe housing cost burden	13.69177467

Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	89.3750802
Arthritis	0.0
Asthma ER Admissions	76.9
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	72.0
Cognitively Disabled	8.5
Physically Disabled	43.7
Heart Attack ER Admissions	85.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	59.5
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	78.7
Elderly	8.3
English Speaking	71.4
Foreign-born	11.8
Outdoor Workers	90.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	59.7
Traffic Density	57.4
Traffic Access	23.0
Other Indices	—
Hardship	18.0
Other Decision Support	—
2016 Voting	90.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	8.00
Healthy Places Index Score for Project Location (b)	79.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

b: The maximum Healthy 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	Adjusted values per site plan.
Construction: Construction Phases	Extended demolition phase to due to extent of demolition required. Extended architectural coating phase due to proposed number of buildings
Construction: Off-Road Equipment	Conservatively assumed all equipment would run 8 hours a day. Replaced tractors/loaders/backhoes with crawler tractor to accurately assess site disturbance. Included 1 diesel crushing equipment to account for crushing during demolition phase. Included 1 "other construction equipment" to account for a woodchipper during the site preparation phase.
Construction: Off-Road Equipment EF	Input emissions factors for diesel crushing equipment using EMFAC OFFROAD2021 values for Orange County subarea, 2026.
Operations: Vehicle Data	Adjusted weekday, Saturday, and Sunday trip rates to ITE 11th edition rates (Land use codes 210 and 220).
Operations: Emergency Generators and Fire Pumps	Included proposed generator and fire pump information from Project Applicant.
Operations: Hearths	No proposed fireplaces.

25-011 Existing Cypress Grove Project Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-011 Existing Cypress Grove Project
Operational Year	2027
Lead Agency	City of Tustin
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	2.20
Location	33.758903885169794, -117.82133906390618
County	Orange
City	Tustin
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5969
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	193	1000sqft	3.39	193,000	41,113	—	185	—

Other Asphalt Surfaces	0.46	Acre	0.46	0.00	0.00	—	—	—
Parking Lot	521	Space	4.69	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.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	12.7	6.52	70.6	0.17	16.3	4.30	23,167
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	11.3	6.89	57.4	0.17	16.3	4.29	22,434
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	10.6	5.61	50.4	0.13	12.3	3.25	18,510
Annual (Max)	—	—	—	—	—	—	—
Unmit.	1.93	1.02	9.19	0.02	2.25	0.59	3,065
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000

Unmit.	—	—	—	—	—	—	Yes
--------	---	---	---	---	---	---	-----

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	6.59	5.13	61.1	0.17	16.2	4.19	17,262
Area	6.03	0.07	8.39	< 0.005	0.01	0.01	34.6
Energy	0.07	1.31	1.10	0.01	0.10	0.10	5,024
Water	—	—	—	—	—	—	507
Waste	—	—	—	—	—	—	338
Refrig.	—	—	—	—	—	—	0.47
Total	12.7	6.52	70.6	0.17	16.3	4.30	23,167
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	6.53	5.58	56.3	0.16	16.2	4.19	16,563
Area	4.66	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.07	1.31	1.10	0.01	0.10	0.10	5,024
Water	—	—	—	—	—	—	507
Waste	—	—	—	—	—	—	338
Refrig.	—	—	—	—	—	—	0.47
Total	11.3	6.89	57.4	0.17	16.3	4.29	22,434
Average Daily	—	—	—	—	—	—	—
Mobile	4.88	4.25	43.5	0.12	12.2	3.15	12,616
Area	5.60	0.05	5.75	< 0.005	0.01	0.01	23.7
Energy	0.07	1.31	1.10	0.01	0.10	0.10	5,024
Water	—	—	—	—	—	—	507
Waste	—	—	—	—	—	—	338
Refrig.	—	—	—	—	—	—	0.47

Total	10.6	5.61	50.4	0.13	12.3	3.25	18,510
Annual	—	—	—	—	—	—	—
Mobile	0.89	0.77	7.94	0.02	2.23	0.57	2,089
Area	1.02	0.01	1.05	< 0.005	< 0.005	< 0.005	3.93
Energy	0.01	0.24	0.20	< 0.005	0.02	0.02	832
Water	—	—	—	—	—	—	84.0
Waste	—	—	—	—	—	—	56.0
Refrig.	—	—	—	—	—	—	0.08
Total	1.93	1.02	9.19	0.02	2.25	0.59	3,065

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	6.59	5.13	61.1	0.17	16.2	4.19	17,262
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	6.59	5.13	61.1	0.17	16.2	4.19	17,262
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	6.53	5.58	56.3	0.16	16.2	4.19	16,563
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total	6.53	5.58	56.3	0.16	16.2	4.19	16,563
Annual	—	—	—	—	—	—	—
General Office Building	0.89	0.77	7.94	0.02	2.23	0.57	2,089
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.89	0.77	7.94	0.02	2.23	0.57	2,089

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3,281
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	171
Total	—	—	—	—	—	—	3,452
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	3,281
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	171
Total	—	—	—	—	—	—	3,452
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	543

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	28.3
Total	—	—	—	—	—	—	571

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.07	1.31	1.10	0.01	0.10	0.10	1,572
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	1.31	1.10	0.01	0.10	0.10	1,572
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.07	1.31	1.10	0.01	0.10	0.10	1,572
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	1.31	1.10	0.01	0.10	0.10	1,572
Annual	—	—	—	—	—	—	—
General Office Building	0.01	0.24	0.20	< 0.005	0.02	0.02	260
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.24	0.20	< 0.005	0.02	0.02	260

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.15	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—
Landscape Equipment	1.38	0.07	8.39	< 0.005	0.01	0.01	34.6
Total	6.03	0.07	8.39	< 0.005	0.01	0.01	34.6
Daily, Winter (Max)	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	4.15	—	—	—	—	—	—
Architectural Coatings	0.51	—	—	—	—	—	—
Total	4.66	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.76	—	—	—	—	—	—
Architectural Coatings	0.09	—	—	—	—	—	—
Landscape Equipment	0.17	0.01	1.05	< 0.005	< 0.005	< 0.005	3.93
Total	1.02	0.01	1.05	< 0.005	< 0.005	< 0.005	3.93

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
----------	-----	-----	----	-----	-------	--------	------

Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	507
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	507
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	507
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	507
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	84.0
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	84.0

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	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	338

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	338
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	338
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	338
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	56.0
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
Parking Lot	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	56.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.47
Total	—	—	—	—	—	—	0.47
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.47

Total	—	—	—	—	—	—	0.47
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.08
Total	—	—	—	—	—	—	0.08

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—

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

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	2,092	427	135	574,731	22,802	4,649	1,472	6,264,030
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
General Office Building	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	62
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)
0	0.00	289,500	96,500	13,457

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)
General Office Building	3,439,315	346	0.0330	0.0040	4,891,868
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
Parking Lot	178,925	346	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)
General Office Building	34,302,613	532,840
Other Asphalt Surfaces	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	179	—
Other Asphalt Surfaces	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	10.5	annual days of extreme heat
Extreme Precipitation	4.00	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 $\frac{3}{4}$ 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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

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

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

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

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

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

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	59.7

AQ-PM	71.2
AQ-DPM	18.7
Drinking Water	42.0
Lead Risk Housing	44.5
Pesticides	0.00
Toxic Releases	87.0
Traffic	31.6
Effect Indicators	—
CleanUp Sites	4.12
Groundwater	42.1
Haz Waste Facilities/Generators	40.1
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	21.7
Cardio-vascular	14.9
Low Birth Weights	4.08
Socioeconomic Factor Indicators	—
Education	24.1
Housing	40.9
Linguistic	12.3
Poverty	12.4
Unemployment	9.72

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	77.05633261
Employed	68.38188118
Median HI	78.01873476
Education	—
Bachelor's or higher	79.13512126
High school enrollment	24.48351084
Preschool enrollment	85.28166303
Transportation	—
Auto Access	49.51879892
Active commuting	8.161170281
Social	—
2-parent households	67.7659438
Voting	73.97664571
Neighborhood	—
Alcohol availability	89.13127165
Park access	61.41408957
Retail density	54.66444245
Supermarket access	60.86231233
Tree canopy	37.84165277
Housing	—
Homeownership	93.09636854
Housing habitability	34.8646221
Low-inc homeowner severe housing cost burden	40.02309765
Low-inc renter severe housing cost burden	13.69177467
Uncrowded housing	78.31387142
Health Outcomes	—
Insured adults	89.3750802
Arthritis	0.0

Asthma ER Admissions	76.9
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	72.0
Cognitively Disabled	8.5
Physically Disabled	43.7
Heart Attack ER Admissions	85.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	59.5
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	78.7
Elderly	8.3
English Speaking	71.4
Foreign-born	11.8

Outdoor Workers	90.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	59.7
Traffic Density	57.4
Traffic Access	23.0
Other Indices	—
Hardship	18.0
Other Decision Support	—
2016 Voting	90.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	8.00
Healthy Places Index Score for Project Location (b)	79.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

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	Adjusted values per Phase I ESA and client input.
Construction: Construction Phases	Extended demolition phase to per Project Applicant input. Extended architectural coating phase due to proposed number of buildings
Construction: Off-Road Equipment	Conservatively assumed all equipment would run 8 hours a day. Replaced tractors/loaders/backhoes with crawler tractor to accurately assess site disturbance. Included 1 diesel crushing equipment to account for crushing during demolition phase. Included 1 "other construction equipment" to account for a woodchipper during the site preparation phase.
Construction: Off-Road Equipment EF	Input emissions factors for diesel crushing equipment using EMFAC OFFROAD2021 values for Orange County subarea, 2026.
Operations: Vehicle Data	Adjusted weekday, Saturday, and Sunday trip rates to ITE 11th edition rates (Land use code 710).
Operations: Emergency Generators and Fire Pumps	—
Operations: Hearths	No proposed fireplaces.

PROPOSED PROJECT

Model Output: OFFROAD2021 (v1.0.9) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2026

<- Construction Start Year

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hour

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	Fuel Consumption	Horsepower Hours	Fuel Rate
Orange (SC)		2026 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	90057.32957	1917838.819	0.046957715
Orange (SC)		2026 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	2432479.876	45472562.08	0.053493354
Orange (SC)		2026 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	365954.9296	7030174.114	0.052054888
Orange (SC)		2026 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	2460206.219	48143282.78	0.051101755
Orange (SC)		2026 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	937069.8253	19605884.81	0.047795335
Orange (SC)		2026 Industrial - Forklifts	Aggregate	Aggregate	Diesel	1269050.904	23734071.58	0.053469583
Orange (SC)		2026 Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	415673.2127	6020934.15	0.069037993
Orange (SC)		2026 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	10636.1	229055.75	0.046434547
Orange (SC)		2026 Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	496890.9077	16440432.2	0.030223713
Orange (SC)		2026 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	159356.9816	3086007.282	0.051638563
Orange (SC)		2026 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	176544.8927	3441900.607	0.05129285
Orange (SC)		2026 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	428812.6724	7999589.409	0.053604335
Orange (SC)		2026 Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	98536.21128	3353966.75	0.029379007
Orange (SC)		2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	4839.2	115391.1	0.041937376
Orange (SC)		2026 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	775147.1393	15390319.23	0.050365891
Orange (SC)		2026 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	1021025.479	21051545.68	0.048501212
Orange (SC)		2026 Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	41690.65273	823251.1643	0.050641474
Orange		2026 Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	509763.4476	9926031.768	0.051356218

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

40301.72863

Calendar Year: 2026

Season: Annual

2025 Construction start year

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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate	
Orange (SC)		2026 MHDT	Aggregate	Aggregate	Diesel		363024343	40301.72863	9.01
Orange (SC)		2026 HHDT	Aggregate	Aggregate	Diesel		404345567.2	65859.40937	6.14

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption		
Orange (SC)		2026 LDA	Aggregate	Aggregate	Gasoline		14427540707	460205.4939	31.35
Orange (SC)		2026 LDT1	Aggregate	Aggregate	Gasoline		1177116103	45120.45791	26.09
Orange (SC)		2026 LDT2	Aggregate	Aggregate	Gasoline		7559102644	294891.677	25.63

50/25/25 Splits 28.61

COUNTY CONSUMPTION

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Orange

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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	Fuel Consumption		
Orange		2026 HHDT	Aggregate	Aggregate	Diesel	404345567.2	65859.40937		
Orange		2026 LDA	Aggregate	Aggregate	Diesel	27885673.79	639.5560923		
Orange		2026 LDT1	Aggregate	Aggregate	Diesel	125912.9941	5.257047435		
Orange		2026 LDT2	Aggregate	Aggregate	Diesel	30698067.92	920.2352206		
Orange		2026 LHDT1	Aggregate	Aggregate	Diesel	319326618.4	15250.10747		
Orange		2026 LHDT2	Aggregate	Aggregate	Diesel	138075351.1	7789.248518		
Orange		2026 MDV	Aggregate	Aggregate	Diesel	61507656.69	2476.477766		
Orange		2026 MH	Aggregate	Aggregate	Diesel	9636489.216	949.3609386		
Orange		2026 MHDT	Aggregate	Aggregate	Diesel	363024343	40301.72863		
Orange		2026 OBUS	Aggregate	Aggregate	Diesel	10714021.15	1469.472549		
Orange		2026 SBUS	Aggregate	Aggregate	Diesel	5029135.279	676.6054259		
Orange		2026 HHDT	Aggregate	Aggregate	Gasoline	180736.7049	40.83151741		
Orange		2026 LDA	Aggregate	Aggregate	Gasoline	14427540707	460205.4939		
Orange		2026 LDT1	Aggregate	Aggregate	Gasoline	1177116103	45120.45791		
Orange		2026 LDT2	Aggregate	Aggregate	Gasoline	7559102644	294891.677		
Orange		2026 LHDT1	Aggregate	Aggregate	Gasoline	541968311.9	37057.75938		
Orange		2026 LHDT2	Aggregate	Aggregate	Gasoline	80997974.67	6368.807747		
Orange		2026 MCY	Aggregate	Aggregate	Gasoline	114576754.6	2699.165187		
Orange		2026 MDV	Aggregate	Aggregate	Gasoline	4404505018	211684.7702		
Orange		2026 MH	Aggregate	Aggregate	Gasoline	18202469.21	3725.150697		
Orange		2026 MHDT	Aggregate	Aggregate	Gasoline	118350128.8	22649.98553		
Orange		2026 OBUS	Aggregate	Aggregate	Gasoline	11023612.01	2081.091226		
Orange		2026 SBUS	Aggregate	Aggregate	Gasoline	10173769.38	1135.020524		
Orange		2026 UBUS	Aggregate	Aggregate	Gasoline	13856970.44	1135.993315		
Diesel total							136337459	0.02%	0.003%
Gasoline total							1088796204	0.32%	

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: County

Region: Orange

Calendar Year: 2026

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hour

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	Fuel Consumption	Horsepower_Hours_hhpy
Orange		2026 Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	299815.8054	5971863.558
Orange		2026 Construction and Mining - Bucket	Aggregate	Aggregate	Diesel	7132.42843	138513.887
Orange		2026 Construction and Mining - Compactor	Aggregate	Aggregate	Diesel	11566.88391	228174.1796
Orange		2026 Construction and Mining - Concrete Mixer	Aggregate	Aggregate	Diesel	1075.413939	20955.16839
Orange		2026 Construction and Mining - Concrete Pump	Aggregate	Aggregate	Diesel	10909.79034	214691.343
Orange		2026 Construction and Mining - Crane less than 35ton	Aggregate	Aggregate	Diesel	5638.386007	102119.0255
Orange		2026 Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	283969.5728	5232160.767
Orange		2026 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	775147.1393	15390319.23
Orange		2026 Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	41690.65273	823251.1643
Orange		2026 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	2460206.219	48143282.78
Orange		2026 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	365954.9296	7030174.114
Orange		2026 Construction and Mining - Hopper Tractor Trailer	Aggregate	Aggregate	Diesel	704.8302246	13972.27128
Orange		2026 Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	85.1	0
Orange		2026 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	124.2	0
Orange		2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	4839.2	115391.1
Orange		2026 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	10	0
Orange		2026 Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	71.5	0
Orange		2026 Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	266.4	0
Orange		2026 Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	18.9	0
Orange		2026 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	31.9	0
Orange		2026 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	89.2	0
Orange		2026 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	548	0

Orange	2026 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	13.1	0	
Orange	2026 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	3535.25	47807.7	
Orange	2026 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	3670	0	
Orange	2026 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	342	0	
Orange	2026 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	461	0	
Orange	2026 Construction and Mining - Nurse Rig Other	Aggregate	Aggregate	Diesel	64.51346555	1278.88903	
Orange	2026 Construction and Mining - Off-Highway Tractors	Aggregate	Aggregate	Diesel	439647.8456	8639543.794	
Orange	2026 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	1021025.479	21051545.68	
Orange	2026 Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	509763.4476	9926031.768	
Orange	2026 Construction and Mining - Other Material Handling Equipment	Aggregate	Aggregate	Diesel	157130.781	3071557.946	
Orange	2026 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	159356.9816	3086007.282	
Orange	2026 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	176544.8927	3441900.607	
Orange	2026 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	428812.6724	7999589.409	
Orange	2026 Construction and Mining - Rough Terrain Forklifts	Aggregate	Aggregate	Diesel	524606.4185	9992962.588	
Orange	2026 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	90057.32957	1917838.819	
Orange	2026 Construction and Mining - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	1795015.113	35716586.59	
Orange	2026 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	937069.8253	19605884.81	
Orange	2026 Construction and Mining - Skid Steer Loaders	Aggregate	Aggregate	Diesel	857527.7715	15338779.66	
Orange	2026 Construction and Mining - Spray Truck	Aggregate	Aggregate	Diesel	10414.56882	202022.4243	
Orange	2026 Construction and Mining - Spreader Tractor Trailer	Aggregate	Aggregate	Diesel	1310.018301	25850.62877	
Orange	2026 Construction and Mining - Spreader Truck	Aggregate	Aggregate	Diesel	8132.66619	159535.7731	
Orange	2026 Construction and Mining - Surfacing Equipment	Aggregate	Aggregate	Diesel	83292.52268	1657086.434	
Orange	2026 Construction and Mining - Tank Truck	Aggregate	Aggregate	Diesel	17762.98762	351770.1509	
Orange	2026 Construction and Mining - Tanker Truck Trailer	Aggregate	Aggregate	Diesel	1358.604294	26076.53431	
Orange	2026 Construction and Mining - Telescopic Handler	Aggregate	Aggregate	Diesel	35542.51104	681645.4436	
Orange	2026 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	2432479.876	45472562.08	
Orange	2026 Construction and Mining - Trenchers	Aggregate	Aggregate	Diesel	85505.67955	1591147.015	
Orange	2026 Construction and Mining - Vacuum Truck	Aggregate	Aggregate	Diesel	26945.91889	530937.9881	
Orange	2026 Construction and Mining - Water Truck	Aggregate	Aggregate	Diesel	80412.65285	1595724.918	
Orange	2026 Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	19866.7	207469.65	
Orange	2026 Construction and Mining - Misc - Bore/Drill Rig	Aggregate	Aggregate	Gasoline	12864.65	153913.2	
Orange	2026 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	74534	0	
Orange	2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	95662.05	415151	
Orange	2026 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	10636.1	229055.75	
Orange	2026 Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	478	0	
Orange	2026 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	7755.7	17826.6	
Orange	2026 Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	16206	372519	
Orange	2026 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	140412.75	208378.5	
Orange	2026 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	50918	0	
Orange	2026 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	67223.65	630179.8	
Orange	2026 Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	75044	1244394.5	
Orange	2026 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	39785	755608.4	
Orange	2026 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	1441.6	0	
Orange	2026 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	145672.7	1924104.8	
Orange	2026 Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	61798	0	
Orange	2026 Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	8510	0	
Orange	2026 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	25528.1	549580.5	
Orange	2026 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	123226.9	1082363.7	
DIESEL TOTAL						14157698.88	0.32%
GASOLINE TOTAL						977563.9	

APPENDIX B – FUEL CALCULATIONS

PROPOSED PROJECT

Model Output: OFFROAD2021 (v1.0.9) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2026

<- Construction Start Year

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hour

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	Fuel Consumption	Horsepower Hours	Fuel Rate
Orange (SC)		2026 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	90057.32957	1917838.819	0.046957715
Orange (SC)		2026 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	2432479.876	45472562.08	0.053493354
Orange (SC)		2026 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	365954.9296	7030174.114	0.052054888
Orange (SC)		2026 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	2460206.219	48143282.78	0.051101755
Orange (SC)		2026 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	937069.8253	19605884.81	0.047795335
Orange (SC)		2026 Industrial - Forklifts	Aggregate	Aggregate	Diesel	1269050.904	23734071.58	0.053469583
Orange (SC)		2026 Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	415673.2127	6020934.15	0.069037993
Orange (SC)		2026 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	10636.1	229055.75	0.046434547
Orange (SC)		2026 Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	496890.9077	16440432.2	0.030223713
Orange (SC)		2026 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	159356.9816	3086007.282	0.051638563
Orange (SC)		2026 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	176544.8927	3441900.607	0.05129285
Orange (SC)		2026 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	428812.6724	7999589.409	0.053604335
Orange (SC)		2026 Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	98536.21128	3353966.75	0.029379007
Orange (SC)		2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	4839.2	115391.1	0.041937376
Orange (SC)		2026 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	775147.1393	15390319.23	0.050365891
Orange (SC)		2026 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	1021025.479	21051545.68	0.048501212
Orange (SC)		2026 Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	41690.65273	823251.1643	0.050641474
Orange		2026 Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	509763.4476	9926031.768	0.051356218

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Orange (SC)

Calendar Year: 2026

40301.72863

Season: Annual

2025 Construction start year

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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate	
Orange (SC)		2026 MHDT	Aggregate	Aggregate	Diesel		363024343	40301.72863	9.01
Orange (SC)		2026 HHDT	Aggregate	Aggregate	Diesel		404345567.2	65859.40937	6.14

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption		
Orange (SC)		2026 LDA	Aggregate	Aggregate	Gasoline		14427540707	460205.4939	31.35
Orange (SC)		2026 LDT1	Aggregate	Aggregate	Gasoline		1177116103	45120.45791	26.09
Orange (SC)		2026 LDT2	Aggregate	Aggregate	Gasoline		7559102644	294891.677	25.63

50/25/25 Splits 28.61

COUNTY CONSUMPTION

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Orange

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	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Total VMT	Fuel Consumption		
Orange		2026 HHDT	Aggregate	Aggregate	Diesel	404345567.2	65859.40937		
Orange		2026 LDA	Aggregate	Aggregate	Diesel	27885673.79	639.5560923		
Orange		2026 LDT1	Aggregate	Aggregate	Diesel	125912.9941	5.257047435		
Orange		2026 LDT2	Aggregate	Aggregate	Diesel	30698067.92	920.2352206		
Orange		2026 LHDT1	Aggregate	Aggregate	Diesel	319326618.4	15250.10747		
Orange		2026 LHDT2	Aggregate	Aggregate	Diesel	138075351.1	7789.248518		
Orange		2026 MDV	Aggregate	Aggregate	Diesel	61507656.69	2476.477766		
Orange		2026 MH	Aggregate	Aggregate	Diesel	9636489.216	949.3609386		
Orange		2026 MHDT	Aggregate	Aggregate	Diesel	363024343	40301.72863		
Orange		2026 OBUS	Aggregate	Aggregate	Diesel	10714021.15	1469.472549		
Orange		2026 SBUS	Aggregate	Aggregate	Diesel	5029135.279	676.6054259		
Orange		2026 HHDT	Aggregate	Aggregate	Gasoline	180736.7049	40.83151741		
Orange		2026 LDA	Aggregate	Aggregate	Gasoline	14427540707	460205.4939		
Orange		2026 LDT1	Aggregate	Aggregate	Gasoline	1177116103	45120.45791		
Orange		2026 LDT2	Aggregate	Aggregate	Gasoline	7559102644	294891.677		
Orange		2026 LHDT1	Aggregate	Aggregate	Gasoline	541968311.9	37057.75938		
Orange		2026 LHDT2	Aggregate	Aggregate	Gasoline	80997974.67	6368.807747		
Orange		2026 MCY	Aggregate	Aggregate	Gasoline	114576754.6	2699.165187		
Orange		2026 MDV	Aggregate	Aggregate	Gasoline	4404505018	211684.7702		
Orange		2026 MH	Aggregate	Aggregate	Gasoline	18202469.21	3725.150697		
Orange		2026 MHDT	Aggregate	Aggregate	Gasoline	118350128.8	22649.98553		
Orange		2026 OBUS	Aggregate	Aggregate	Gasoline	11023612.01	2081.091226		
Orange		2026 SBUS	Aggregate	Aggregate	Gasoline	10173769.38	1135.020524		
Orange		2026 UBUS	Aggregate	Aggregate	Gasoline	13856970.44	1135.993315		
Diesel total							136337459	0.02%	0.003%
Gasoline total							1088796204	0.32%	

Model Output: Off-Road Web Query (v1.1.0) Emissions Inventory

Region Type: County

Region: Orange

Calendar Year: 2026

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: Off-Road Web Query Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hour

Region	Calendar Year	Vehicle Category	Model Year	Horsepower Bin	Fuel	Fuel Consumption	Horsepower_Hours_hhpy
Orange		2026 Construction and Mining - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	299815.8054	5971863.558
Orange		2026 Construction and Mining - Bucket	Aggregate	Aggregate	Diesel	7132.42843	138513.887
Orange		2026 Construction and Mining - Compactor	Aggregate	Aggregate	Diesel	11566.88391	228174.1796
Orange		2026 Construction and Mining - Concrete Mixer	Aggregate	Aggregate	Diesel	1075.413939	20955.16839
Orange		2026 Construction and Mining - Concrete Pump	Aggregate	Aggregate	Diesel	10909.79034	214691.343
Orange		2026 Construction and Mining - Crane less than 35ton	Aggregate	Aggregate	Diesel	5638.386007	102119.0255
Orange		2026 Construction and Mining - Cranes	Aggregate	Aggregate	Diesel	283969.5728	5232160.767
Orange		2026 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	775147.1393	15390319.23
Orange		2026 Construction and Mining - Crushing/Processing Equipment	Aggregate	Aggregate	Diesel	41690.65273	823251.1643
Orange		2026 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	2460206.219	48143282.78
Orange		2026 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	365954.9296	7030174.114
Orange		2026 Construction and Mining - Hopper Tractor Trailer	Aggregate	Aggregate	Diesel	704.8302246	13972.27128
Orange		2026 Construction and Mining - Misc - Bore/Drill Rigs	Aggregate	Aggregate	Diesel	85.1	0
Orange		2026 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Diesel	124.2	0
Orange		2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	4839.2	115391.1
Orange		2026 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Diesel	10	0
Orange		2026 Construction and Mining - Misc - Excavators	Aggregate	Aggregate	Diesel	71.5	0
Orange		2026 Construction and Mining - Misc - Other	Aggregate	Aggregate	Diesel	266.4	0
Orange		2026 Construction and Mining - Misc - Pavers	Aggregate	Aggregate	Diesel	18.9	0
Orange		2026 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Diesel	31.9	0
Orange		2026 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Diesel	89.2	0
Orange		2026 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Diesel	548	0

Orange	2026 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	13.1	0	
Orange	2026 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Diesel	3535.25	47807.7	
Orange	2026 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Diesel	3670	0	
Orange	2026 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	342	0	
Orange	2026 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Diesel	461	0	
Orange	2026 Construction and Mining - Nurse Rig Other	Aggregate	Aggregate	Diesel	64.51346555	1278.88903	
Orange	2026 Construction and Mining - Off-Highway Tractors	Aggregate	Aggregate	Diesel	439647.8456	8639543.794	
Orange	2026 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	1021025.479	21051545.68	
Orange	2026 Construction and Mining - Other Construction Equipment	Aggregate	Aggregate	Diesel	509763.4476	9926031.768	
Orange	2026 Construction and Mining - Other Material Handling Equipment	Aggregate	Aggregate	Diesel	157130.781	3071557.946	
Orange	2026 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	159356.9816	3086007.282	
Orange	2026 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	176544.8927	3441900.607	
Orange	2026 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	428812.6724	7999589.409	
Orange	2026 Construction and Mining - Rough Terrain Forklifts	Aggregate	Aggregate	Diesel	524606.4185	9992962.588	
Orange	2026 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	90057.32957	1917838.819	
Orange	2026 Construction and Mining - Rubber Tired Loaders	Aggregate	Aggregate	Diesel	1795015.113	35716586.59	
Orange	2026 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	937069.8253	19605884.81	
Orange	2026 Construction and Mining - Skid Steer Loaders	Aggregate	Aggregate	Diesel	857527.7715	15338779.66	
Orange	2026 Construction and Mining - Spray Truck	Aggregate	Aggregate	Diesel	10414.56882	202022.4243	
Orange	2026 Construction and Mining - Spreader Tractor Trailer	Aggregate	Aggregate	Diesel	1310.018301	25850.62877	
Orange	2026 Construction and Mining - Spreader Truck	Aggregate	Aggregate	Diesel	8132.66619	159535.7731	
Orange	2026 Construction and Mining - Surfacing Equipment	Aggregate	Aggregate	Diesel	83292.52268	1657086.434	
Orange	2026 Construction and Mining - Tank Truck	Aggregate	Aggregate	Diesel	17762.98762	351770.1509	
Orange	2026 Construction and Mining - Tanker Truck Trailer	Aggregate	Aggregate	Diesel	1358.604294	26076.53431	
Orange	2026 Construction and Mining - Telescopic Handler	Aggregate	Aggregate	Diesel	35542.51104	681645.4436	
Orange	2026 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	2432479.876	45472562.08	
Orange	2026 Construction and Mining - Trenchers	Aggregate	Aggregate	Diesel	85505.67955	1591147.015	
Orange	2026 Construction and Mining - Vacuum Truck	Aggregate	Aggregate	Diesel	26945.91889	530937.9881	
Orange	2026 Construction and Mining - Water Truck	Aggregate	Aggregate	Diesel	80412.65285	1595724.918	
Orange	2026 Construction and Mining - Misc - Asphalt Pavers	Aggregate	Aggregate	Gasoline	19866.7	207469.65	
Orange	2026 Construction and Mining - Misc - Bore/Drill Rig	Aggregate	Aggregate	Gasoline	12864.65	153913.2	
Orange	2026 Construction and Mining - Misc - Cement And Mortar Mixers	Aggregate	Aggregate	Gasoline	74534	0	
Orange	2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Gasoline	95662.05	415151	
Orange	2026 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	10636.1	229055.75	
Orange	2026 Construction and Mining - Misc - Crushing/Proc. Equipment	Aggregate	Aggregate	Gasoline	478	0	
Orange	2026 Construction and Mining - Misc - Dumpers/Tenders	Aggregate	Aggregate	Gasoline	7755.7	17826.6	
Orange	2026 Construction and Mining - Misc - Other	Aggregate	Aggregate	Gasoline	16206	372519	
Orange	2026 Construction and Mining - Misc - Paving Equipment	Aggregate	Aggregate	Gasoline	140412.75	208378.5	
Orange	2026 Construction and Mining - Misc - Plate Compactors	Aggregate	Aggregate	Gasoline	50918	0	
Orange	2026 Construction and Mining - Misc - Rollers	Aggregate	Aggregate	Gasoline	67223.65	630179.8	
Orange	2026 Construction and Mining - Misc - Rough Terrain Forklifts	Aggregate	Aggregate	Gasoline	75044	1244394.5	
Orange	2026 Construction and Mining - Misc - Rubber Tired Loaders	Aggregate	Aggregate	Gasoline	39785	755608.4	
Orange	2026 Construction and Mining - Misc - Signal Boards	Aggregate	Aggregate	Gasoline	1441.6	0	
Orange	2026 Construction and Mining - Misc - Skid Steer Loaders	Aggregate	Aggregate	Gasoline	145672.7	1924104.8	
Orange	2026 Construction and Mining - Misc - Surfacing Equipment	Aggregate	Aggregate	Gasoline	61798	0	
Orange	2026 Construction and Mining - Misc - Tampers/Rammers	Aggregate	Aggregate	Gasoline	8510	0	
Orange	2026 Construction and Mining - Misc - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Gasoline	25528.1	549580.5	
Orange	2026 Construction and Mining - Misc - Trenchers	Aggregate	Aggregate	Gasoline	123226.9	1082363.7	
DIESEL TOTAL						14157698.88	0.32%
GASOLINE TOTAL						977563.9	