5.6 Energy

5.6.1 INTRODUCTION

This section of the Draft EIR assesses the significance of the use of energy, including electricity, natural gas and gasoline, and diesel fuels, that would result from implementation of the proposed Project. It discusses existing energy use patterns and examines whether the proposed Project (including development and operation) would result in the consumption of large amounts of fuel or energy or use such resources in a wasteful manner.

Refer to Section 5.8, *Greenhouse Gas Emissions*, for a discussion of the relationship between energy consumption and greenhouse gas (GHG) emissions, and Section 5.18*, Utilities and Service Systems*, for a discussion of water consumption. This section includes data from the following City documents and technical studies prepared for the proposed Project that are included in appendix to this Draft EIR:

- *City of Perris General Plan 2030*, Adopted 26 April 2005
- *City of Perris General Plan 2030 Environmental Impact Report*, Certified 26 April 2005
- Perris Municipal Code
- *Harvest Landing Specific Plan Energy Analysis*, prepared by Urban Crossroads, April 2025, included as EIR Appendix J.

5.6.2 REGULATORY SETTING

5.6.2.1 Federal Regulations

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 (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.

5.6.2.2 State Regulations

California Code of Regulations (CCR) Title 13, Motor Vehicles, Section 2449(d)(3)

No vehicle or engines subject to this regulation may idle for more than 5 consecutive minutes. The idling limit does not apply to:

- Idling when queuing,
- Idling to verify that the vehicle is in safe operating condition,
- Idling for testing, servicing, repairing or diagnostic purposes,
- Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane),
- Idling required to bring the machine system to operating temperature, and
- Idling necessary to ensure safe operation of the vehicle.

Assembly Bill 1279

Assembly Bill (AB) 1279 requires the state to achieve net zero greenhouse gas emissions (GHG) as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter. The bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels and directs the California Air Resources Board (CARB) to work with relevant state agencies to achieve these goals.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. CCR Title 24 Part 11: California Green Building Standards (CALGreen) was first published in 2008 and took effect in 2009. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective January 1, 2023.

The 2022 CALGreen standards that reduce air quality emissions and are applicable to the proposed Project include, but are not limited to, the following:

Nonresidential Mandatory Measures

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.5.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty EV supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).

- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed
    - 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed
    - 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 square feet or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 square feet. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

The 2022 CALGreen Building Standards Code has been adopted by the City of Perris Municipal Code Section 16.08.050.

5.6.2.3 Local and Regional Regulations

City of Perris General Plan 2030

The City of Perris General Plan 2030 Conservation Element contains the following policies related to energy that are applicable to the Project:

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

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

Measure VIII.C.3 Encourage the design and construction of durable buildings that are efficient and economical to own and operate.

Measure VIII.C.4 Review new development projects for compliance with the design guidelines contained within the Sustainable Community section through Conditions of Approval and a finding that the project conforms to the General Plan.

Measure IX.A.1 Encourage installation of shared vehicle parking and support facilities within new and refurbished commercial and industrial developments, i.e., dual fuel vehicles and charging systems on site, car pool parking, and bus stop shelters.

Measure IX.A.2 Install bicycle paths and create secure and accessible bicycle storage for visitors and occupants within new and refurbished commercial and industrial developments.

Measure IX.A.5 The City shall require all new public and private development to include bike and walking paths wherever feasible.

Measure X.C.1 Promote energy conservation by taking advantage of natural site features such as natural lighting and ventilation, sunlight, shade and topography during the site plan process.

Measure X.C.2 When possible, locate driveways and parking on the east and north sides of buildings to reduce heat buildup during hot afternoons.

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

City of Perris Good Neighbor Guidelines

The City of Perris Good Neighbor Guidelines for Siting New and/or Modified Industrial Facilities were adopted in September 2022. The purpose of the Good Neighbor Guidelines is to protect residential areas in the City while allowing for the planned development of new or modified industrial facilities. The Guidelines apply to all new warehouse, logistics, and distribution facilities with applications submitted after September 2022. The Good Neighbor Guidelines contain the following policies related to energy use that are applicable to future industrial developments within Phase 2 of the Specific Plan:

Goal 1 **Protect the neighborhood characteristics of the urban, rural, and suburban communities.**

Policy 1.1 Any industrial project over 400,000 square feet in size or requiring the preparation of an Environmental Impact Report (EIR) shall be designed to meet the requirements of LEED Silver Certification whether or not certification is pursued. Documentation shall be provided to the City demonstrating compliance.

Policy 2.1 Minimize the air quality impacts of trucks on sensitive receptors by:

a) Restricting diesel engine and construction equipment idling to 5 minutes or less (SCAQMD Rule 2485). A driver of a vehicle shall turn off the engine upon stopping at a destination.

b) Designing facilities with adequate on-site queuing for trucks and away from sensitive receptors and preventing queuing of trucks on surrounding public streets.

c) Providing ingress and egress for trucks away from sensitive receptors.

d) For buildings with 50 or more dock high doors, a site plan is required identifying a planned location for future electric truck charging stations and installation of raceway for conduit to that location. A ratio of one charging station shall be required for every 50 dock high doors.

e) On site equipment, such as forklifts, shall be electric with the necessary electrical charging stations provided or be powered by alternative technology.

f) Passenger vehicles parking should be separated from enclosed truck parking/truck court, and have separate primary access.

g) At least 10% of all passenger vehicle parking spaces shall be electric vehicle (EV) ready. At least 5% of all passenger vehicle parking spaces shall be equipped with working Level 2 Quick charge EV charging stations installed and operational, prior to issuance of a certificate of occupancy. Signage shall be installed indicating EV charging stations and that spaces are reserved for clean air/EV vehicles.

h) Encouraging replacement of diesel fleets with new model vehicles.

i) Preventing the queuing of trucks on streets or elsewhere outside the warehouse facility or near sensitive receptor.

j) Promoting the installation of on-site electric hook-ups to eliminate idling of main and auxiliary engines during loading and unloading of cargo and when trucks are not in use – especially where transport refrigeration units (TRUs) are proposed to be used.

Policy 2.6 On site motorized operational equipment shall be ZE (Zero Emissions).

Policy 2.7 Buildings over 400,000 square feet shall install solar panels so 100% of the power is supplied to the office area of the facility, unless it is restricted due to the March Air Force Base Accident Potential Zone.

Policy 2.8 Truck operators with TRUs shall be required to utilize electric plug-in units when at loading docks.

Policy 2.12 Require low energy use features, low water use features, all-electric vehicles (EV) parking spaces and charging facility, carpool/vanpool parking spaces, and short- and long-term bicycle parking facilities (Title 24 of the California Code of Regulations – CALGreen).

Policy 2.13 Post signs requiring to turn off truck engines when not in use.

Goal 7 **Ensure Compliance with the California Environmental Quality Act (CEQA) and State Environmental Agencies**

Policy 7.5 Require Transportation Demand Management Measures for industrial uses with over 100 employees to reduce work related vehicle trips.

5.6.3 ENVIRONMENTAL SETTING

5.6.3.1 Electricity

The Southern California Edison Company (SCE) is the electrical purveyor in the City of Perris. SCE provides electricity service to more than 14 million people in a 50,000 square-mile area of central, coastal and Southern California. California utilities are experiencing increasing demands that require modernization of the electric distribution grid to, among other things, accommodate two-way flows of electricity and increase the grid's capacity. SCE is in the process of implementing infrastructure upgrades to ensure the ability to meet future demands. In addition, as described by the Edison International 2022 Annual Report, the SCE electrical grid modernization effort supports implementation of California requirements to achieve carbon neutrality by 2045. The state has set Renewables Portfolio Standards that require retail sellers of electricity to provide 60 percent of power from renewable resources by 2030. The state also requires sellers of electricity to deliver 100 percent of retail sales from carbon-free sources by 2045, including interim targets of 90 percent by 2035 and 95 percent by 2040. In 2023 approximately 49 percent of power that SCE delivered to customers came from carbon-free resources (SCE, 2023).

The Project site is adjacent to the electricity distribution system that exists within the roadways adjacent to the Project site.

5.6.3.2 Natural Gas

The Southern California Gas Company (SoCalGas) is the natural gas purveyor in the City of Perris and is the principal distributor of natural gas in Southern California. SoCalGas estimates that gas demand will decline at an annual rate of 0.7 percent from 2024 to 2040 due to Title 20 and 24 Codes and Standards and renewable energy goals that impact gas-fired electricity. The gas supply available to SoCalGas is regionally diverse and includes supplies from California sources (onshore and offshore), Southwestern U.S. supply sources, the Rocky Mountains, and Canada. SoCalGas designs its facilities and supplies to provide continuous service during extreme peak demands and has identified the ability to meet peak demands through 2040 (CGEU, 2024).

5.6.4 THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines indicates that a Project could have a significant effect if it were to:

ENE-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

ENE-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

5.6.5 METHODOLOGY

A number of factors are considered when weighing whether a project would use a proportionately large amount of energy or whether the use of energy would be wasteful in comparison to other projects. Factors such as the use of onsite renewable energy features, energy conservation features or programs, and relative use of transit are considered.

According to Appendix F of the CEQA Guidelines, conserving energy is defined as decreasing overall per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. Neither Appendix F of the CEQA Guidelines nor Public Resources Code Section 21100(b)(3) offer a numerical threshold of significance that might be used to evaluate the potential significance of energy

consumption of a project. Rather, the emphasis is on reducing "the wasteful, inefficient, and unnecessary consumption of energy."

Construction activities would result in wasteful, inefficient, or unnecessary use of energy if construction equipment is old or not well maintained, if equipment is left to idle when not in use, if travel routes are not planned to minimize vehicle miles traveled, or if excess lighting or water is used during construction activities. Energy usage during project operation would be considered "wasteful, inefficient, and unnecessary" if the project were to violate federal, state, and/or local energy standards, including Title 24 of the California Code of Regulations, inhibit pedestrian or bicycle mobility, inhibit access to transit, or inhibit feasible opportunities to use alternative energy sources, such as solar energy, or otherwise inhibit the conservation of energy.

5.6.6 ENVIRONMENTAL IMPACTS

As detailed in Section 3.0, *Project Description*, the proposed Project includes a Specific Plan Amendment to modify the existing land uses and development of the Project site pursuant to the proposed new land uses over two phases that are summarized below.

Phase 1 Development

Within Phase 1, the Project would construct and operate a 139.89-acre business park with seven buildings including a parcel hub, high cube warehouses, and light industrial buildings that would total 1,727,579 square feet; construct and operate a 22.16-acre shopping center with buildings totaling 250,457 square feet; and construct and operate a 167,060 square foot big box store on a 24.33-acre site with a 12-pump gas station and two fast-food restaurant parcels for two restaurants that would each be approximately 5,500 square feet.

In addition, during construction of Phase 1 the Project would implement street improvements on Indian Avenue, Orange Avenue, Frontage Road, Perris Boulevard, Barrett Avenue, Harvest Landing Way, and Private Drive A; install drainage infrastructure improvements in Perris Boulevard, Barrett Avenue, Orange Avenue, Indian Avenue, and Private Drive A; implement sewer line improvements in Perris Boulevard; implement water lines improvements in Barrett Avenue, Orange Avenue, Frontage Road, Walmart Supercenter Drive; and install a new water well for landscaping irrigation in the proposed drainage basin. Construction and operation of the Phase 1 development is analyzed at a project-specific level within this section.

Phase 2 Buildout

The proposed amended Specific Plan buildout of the Phase 2 development area without inclusion of the overlay area would allow up to 3,659,693 square feet of warehouse, light industrial, and/or manufacturing uses under the Multiple Business Use designation, at a maximum floor area ratio of 0.75. Development of the 10.66-acre overlay area would include approximately 348,262 square feet of warehouse, light industrial, and/or manufacturing uses under the Multiple Business Use designation. Total development within the Phase 2 area, including the overlay area, would include up to 4,007,955 square feet of building area.[1] The analysis within this section assumes that construction would begin in 2026 and be completed by 2030, thereby overlapping with operation of Phase 1 developments. Construction and operation of the Phase 2 buildout is analyzed at a programmatic level within this section.

[1] The Phase 2 buildout square footage of 4,007,955 square feet was based on the gross acreage of parcels within the Phase 2 area prior to roadway dedications. After roadway dedications, the maximum allowable development within Phase 2 would actually be 4,001,748 square feet. However, for purposes of providing a conservative analysis, a buildout of 4,007,955 square feet was assumed.

IMPACT E-1: THE PROJECT WOULD NOT RESULT IN POTENTIALLY SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, DURING PROJECT CONSTRUCTION OR OPERATION.

Specific Plan Buildout

Construction

Less than Significant Impact. During construction of the proposed Project, energy would be consumed in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment, construction worker travel to and from the Specific Plan Area, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction activities related to the proposed Project and the associated infrastructure are not expected to result in demand for fuel greater on a per-unit-of-development basis than other development projects in Southern California. The equipment used for Project construction would conform to CARB regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. In addition, compliance with existing CARB idling restrictions and the use of newer engines and equipment would reduce fuel combustion and energy consumption and California emissions standards. Also, CCR Title 13, Motor Vehicles, Section 2449(d)(3), *Idling*, limits idling times of construction vehicles to no more than 5 minutes. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign for idling shall be posted onsite. Enforcement of idling limitations is also realized through periodic site inspections conducted by City building officials. This would preclude unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment.

The energy analysis modeling for construction of the Project (included as EIR Appendix J) details that buildout of Phase 1 would require 468,195 kWh, buildout of Phase 2 would require 3,198,348 kWh, and the total construction buildout would utilize 3,666,543 kWh of electricity as detailed in Table 5.6-1.

Also, as shown in Table 5.6-2, construction of the proposed offsite improvements is estimated to require 10,151 gallons of diesel fuel. Table 5.6-3 shows that construction of Phase 1 would require 349,703 gallons of diesel fuel. Table 5.6-4 shows that construction of Phase 2 would require 449,621 gallons of diesel fuel and that buildout of the entire Project is estimated to result in the need for 809,474 gallons of diesel fuel.

These estimates are based on the conservative assumption that all of the construction equipment is used for 8 hours per day. In actuality most construction equipment is used for limited time periods, as needed, and not simultaneously. In addition, these estimates do not include fuel consumption reductions from implementation of air quality related mitigation measures. Mitigation Measure AQ-2 requires use of Tier 4 construction equipment over 50 horsepower (hp) and Mitigation Measure AQ-5 that requires use of newer haul trucks, which would further ensure that construction use of fuel would not be inefficient or wasteful.

Table 5.6-1: Estimated Construction Electricity Usage

Phase	Land Use	Project Construction Electricity Usage (kWh)
Phase 1 (2026 OY)	TUMF High Cube (Building 2, 6, and 7)	260,863
	Parcel Hub (Building 1)	69,609
	General Light Industrial (Building 3, 4, and 5)	42,901
	Medical Office Building	1,189
	Large Format Retail Anchor	36,104
	Shopping Center	41,030
	Supermarket	5,026
	Fast Casual Restaurant	1,931
	High-Turnover (Sit -Down) Restaurant	4,565
	Fast Food Restaurant w DT	2,377
	Coffee/Donut Shop w DT	389
	Gasoline/Service Station (12 VFP)	2,211
Phase 1 Total Construction Electricity Usage		***468,195***
Phase 2 (2030 OY)	Industrial Park	2,920,435
	Industrial Park (Overlay)	277,913
PHASE 2 Total Construction Electricity Usage		***3,198,348***
(PHASES 1+2) Total Construction Electricity Usage		***3,666,543***

Source: EIR Appendix J

Table 5.6-2: Estimated Construction Equipment Fuel Consumption of Offsite Improvements

Activity	Duration (Days)	Equipment	HP Rating	Quantity	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Linear Grading & Excavation	19	Crawler Tractors	87	1	0.43	299	307
		Excavators	36	3	0.38	328	337
		Graders	148	1	0.41	485	499
		Rollers	36	2	0.38	219	225
		Rubber Tired Loaders	150	1	0.36	432	444
		Scrapers	423	2	0.48	3,249	3,336
		Signal Boards	6	3	0.82	118	121
		Tractors/Loaders/Backhoes	84	2	0.37	497	511
Linear Drainage, Utilities, & Sub-Grade	13	Air Compressors	37	1	0.48	142	100
		Generator Sets	14	1	0.74	83	58
		Graders	148	1	0.41	485	341
		Plate Compactors	8	1	0.43	28	19
		Pumps	11	1	0.74	65	46
		Rough Terrain Forklifts	96	1	0.4	307	216
		Scrapers	423	2	0.48	3,249	2,283
		Signal Boards	6	3	0.82	118	83
		Tractors/Loaders/Backhoes	84	2	0.37	497	349
Linear Paving	11	Pavers	81	1	0.42	272	162
		Paving Equipment	89	1	0.36	256	152
		Rollers	36	3	0.38	328	195
		Signal Boards	6	3	0.82	118	70
		Tractors/Loaders/Backhoes	84	2	0.37	497	296
Offsite Total Construction Diesel Fuel Demand							**10,151**

Source: EIR Appendix J

Table 5.6-3: Estimated Construction Equipment Fuel Consumption of Phase 1

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Demolition/ Crushing	28	Rubber Tired Dozers	367	4	0.4	4,698	7,110
		Excavators	36	6	0.38	657	994
		Concrete/Industrial Saws	33	2	0.73	385	583
		Crushing/Proc. Equipment	12	2	0.85	163	247
Site Preparation	17	Rubber Tired Dozers	367	6	0.4	7,046	6,475
		Crawler Tractors	87	8	0.43	2,394	2,200
Grading	43	Graders	148	6	0.41	2,913	6,770
		Excavators	36	12	0.38	1,313	3,052
		Crawler Tractors	87	12	0.43	3,591	8,347
		Scrapers	423	12	0.48	19,492	45,305
		Rubber Tired Dozers	367	6	0.4	7,046	16,378
		Bore/Drill Rigs	83	1	0.5	332	772
Building Construction	212	Forklifts	82	18	0.2	2,362	27,063
		Generator Sets	14	6	0.74	497	5,699
		Cranes	367	6	0.29	5,109	58,542
		Welders	46	6	0.45	994	11,386
		Tractors/Loaders/ Backhoes	84	18	0.37	4,476	51,287
Paving	212	Pavers	81	12	0.42	3,266	37,426
		Paving Equipment	89	12	0.36	3,076	35,247
		Rollers	36	12	0.38	1,313	15,049
Architectural Coating	212	Air Compressors	37	6	0.48	852	9,769
Phase 1 Total Construction Fuel Demand (Gallons Diesel Fuel)							**349,703**

Source: EIR Appendix J

Table 5.6-4: Estimated Construction Equipment Fuel Consumption of Phase 2

Activity	Duration (Days)	Equipment	HP Rating	Quantity	Load Factor	HP-hrs/day	Fuel Consumption (gallons)
Demolition	200	Concrete/Industrial Saws	33	2	0.73	385	4,167
		Excavators	36	6	0.38	657	7,099
		Rubber Tired Dozers	367	4	0.4	4,698	50,785
Site Preparation	120	Rubber Tired Dozers	367	6	0.4	7,046	45,706
		Crawler Tractors	87	8	0.43	2,394	15,530
Grading	310	Excavators	36	4	0.38	438	7,335
		Graders	148	2	0.41	971	16,269
		Rubber Tired Dozers	367	2	0.4	2,349	39,358
		Scrapers	423	4	0.48	6,497	108,873
		Crawler Tractors	87	4	0.43	1,197	20,060
Building Construction	416	Cranes	367	2	0.29	1,703	38,292
		Forklifts	82	6	0.2	787	17,701
		Generator Sets	14	2	0.74	166	3,727
		Tractors/Loaders/ Backhoes	84	6	0.37	1,492	33,546
		Welders	46	2	0.45	331	7,448
Paving	220	Pavers	81	4	0.42	1,089	12,946
		Paving Equipment	89	4	0.36	1,025	12,193
		Rollers	36	4	0.38	438	5,206
Architectural Coating	220	Air Compressors	37	2	0.48	284	3,379
Phase 2 Construction Diesel Fuel Demand							**449,621**
Phase 1 + Phase 2 Total Construction Diesel Fuel Demand							**588,593**

Source: EIR Appendix J

Table 5.6-5 shows that construction workers with light-duty-auto vehicles (LDA) would utilize 361,809 gallons of fuel. Table 5.6-6 shows that construction workers with light-duty-trucks (LDT1) would utilize 179,810 gallons of fuel. Table 5.6-7 shows that construction workers with heavier light-duty-trucks (LDT2) would utilize 177,058 gallons of fuel and the total fuel used by construction workers would be approximately 718,678 gallons.

Table 5.6-8 shows that approximately 144,848 gallons of fuel would be used by vendors with medium-heavy duty trucks (MHD) and Table 5.6-9 shows that approximately 200,691 gallons of fuel would be used by vendors with heavy-heavy duty trucks (HHD). In addition, Table 5.6-10 shows that hauling trucks for construction of the Project is estimated to utilize 635,035 gallons of fuel.

Table 5.6-5: Estimated Construction Worker Fuel Consumption (Automobiles)

Construction Activity	Duration (Days)	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Offsite 2026						
Linear, Grading & Excavation	19	19	18.5	6,679	33.43	200
Linear, Drainage, Utilities, & Sub-Grade	13	17	18.5	4,089	33.43	122
Linear, Paving	11	13	18.5	2,646	33.43	79
Phase 1						
2025						
Demolition/Crushing	28	18	18.5	9,324	32.49	287
Site Preparation	15	18	18.5	5,661	32.49	154
2026						
Site Preparation	2	18	18.5	666	33.43	20
Grading	43	62	18.5	49,321	33.43	1,475
Building Construction	212	435	18.5	1,706,070	33.43	51,028
Paving	212	45	18.5	176,490	33.43	5,279
Architectural Coating	212	87	18.5	341,214	33.43	10,206
Phase 2						
2026						
Demolition	4	15	18.5	1,110	33.43	33
2027						
Demolition	196	15	18.5	54,390	34.29	1,586
Site Preparation	65	18	18.5	21,645	34.29	631
2028						
Site Preparation	55	20	18.5	20,350	35.14	579
Grading	205	842	18.5	3,193,285	35.14	90,865
2029						
Grading	106	20	18.5	39,220	35.96	1,091
Building Construction	155	842	18.5	2,414,435	35.96	67,138
2030						
Building Construction	261	842	18.5	4,065,597	36.74	110,654
Paving	220	15	18.5	61,050	36.74	1,662
Architectural Coating	220	169	18.5	687,830	36.74	18,721
					Total Construction Worker (LDA) Fuel Consumption	***361,809***

Source: EIR Appendix J

Table 5.6-6: Estimated Construction Worker Fuel Consumption Light Duty Trucks (LDT1)

Construction Activity	Duration (Days)	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Offsite 2026						
Linear, Grading & Excavation	19	10	18.5	3,515	25.70	137
Linear, Drainage, Utilities, & Sub-Grade	13	9	18.5	2,165	25.70	84
Linear, Paving	11	7	18.5	1,425	25.70	55
Phase 1						
2025						
Demolition/Crushing	28	9	18.5	4,662	25.14	185
Site Preparation	15	9	18.5	2,831	25.14	99
2026						
Site Preparation	2	9	18.5	333	25.70	13
Grading	43	31	18.5	24,661	25.70	959
Building Construction	212	218	18.5	854,996	25.70	33,265
Paving	212	23	18.5	90,206	25.70	3,510
Architectural Coating	212	44	18.5	172,568	25.70	6,714
Phase 2						
2026						
Demolition	4	8	18.5	592	25.70	23
2027						
Demolition	196	8	18.5	29,008	26.22	1,106
Site Preparation	65	9	18.5	10,823	26.22	413
2028						
Site Preparation	55	9	18.5	9,158	26.76	342
Grading	205	10	18.5	37,925	26.76	1,417
2029						
Grading	106	10	18.5	19,610	27.31	718
Building Construction	155	421	18.5	1,207,218	27.31	44,203
2030						
Building Construction	261	421	18.5	2,032,799	27.86	72,977
Paving	220	8	18.5	32,560	27.86	1,169
Architectural Coating	220	85	18.5	345,950	27.86	12,420
				Total Construction Worker (LDT1) Fuel Consumption		***179,810***

Source: EIR Appendix J

Table 5.6-7: Estimated Construction Worker Fuel Consumption Light Duty Trucks (LDT2)

Construction Activity	Duration (Days)	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Offsite 2026						
Linear, Grading & Excavation	19	10	18.5	3,515	26.01	135
Linear, Drainage, Utilities, & Sub-Grade	13	9	18.5	2,165	26.01	83
Linear, Paving	11	7	18.5	1,425	26.01	55
Phase 1						
2025						
Demolition/Crushing	28	9	18.5	4,662	25.29	184
Site Preparation	15	9	18.5	2,831	25.29	99
2026						
Site Preparation	2	9	18.5	333	26.01	13
Grading	43	31	18.5	24,661	26.01	948
Building Construction	212	218	18.5	854,996	26.01	32,874
Paving	212	23	18.5	90,206	26.01	3,468
Architectural Coating	212	44	18.5	172,568	26.01	6,635
Phase 2						
2026						
Demolition	4	8	18.5	592	26.01	23
2027						
Demolition	196	8	18.5	29,008	26.63	1,089
Site Preparation	65	9	18.5	10,823	26.63	406
2028						
Site Preparation	55	9	18.5	9,158	27.23	336
Grading	205	10	18.5	37,925	27.23	1,393
2029						
Grading	106	10	18.5	19,610	27.79	706
Building Construction	155	421	18.5	1,207,218	27.79	43,439
2030						
Building Construction	261	421	18.5	2,032,799	28.31	71,802
Paving	220	8	18.5	32,560	28.31	1,150
Architectural Coating	220	85	18.5	345,950	28.31	12,220
					Total Construction Worker (LDT2) Fuel Consumption	***177,058***
					(All Vehicles) Total Construction Worker Fuel Consumption	***718,678***

Source: EIR Appendix J

Table 5.6-8: Estimated Construction Vendor MHD Fuel Consumption

Construction Activity	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Offsite 2026						
Linear, Grading & Excavation	19	1	10.2	194	8.72	22
Phase 1						
2025						
Demolition/Crushing	28	17	10.2	4,855	8.60	565
Site Preparation	15	10	10.2	1,530	8.60	178
2026						
Site Preparation	2	10	10.2	204	8.72	23
Grading	43	26	10.2	11,404	8.72	1,307
Building Construction	212	126	10.2	272,462	8.72	31,228
Phase 2						
2026						
Demolition	4	63	10.2	2,570	8.72	295
2027						
Demolition	196	63	10.2	125,950	8.87	14,193
Site Preparation	65	38	10.2	25,194	8.87	2,839
2028						
Site Preparation	55	38	10.2	21,318	9.09	2,346
Grading	205	98	10.2	204,918	9.09	22,552
2029						
Grading	106	98	10.2	105,958	9.37	11,313
Building Construction	155	131	10.2	207,111	9.37	22,112
2030						
Building Construction	261	131	10.2	348,748	9.72	35,876
					Total Construction Vendor (MHDT) Fuel Consumption	***144,848***

Source: EIR Appendix J

Table 5.6-9: Estimated Construction Vendor HHD Fuel Consumption

Construction Activity	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Offsite 2026						
Linear, Grading & Excavation	19	1	10.2	194	6.33	31
Phase 1						
2025						
Demolition/Crushing	28	17	10.2	4,855	6.22	781
Site Preparation	15	10	10.2	1,530	6.22	246
2026						
Site Preparation	2	10	10.2	204	6.33	32
Grading	43	26	10.2	11,404	6.33	1,803
Building Construction	173	126	10.2	272,462	6.33	43,070
Phase 2						
2026						
Demolition	4	63	10.2	2,570	6.33	406
2027						
Demolition	196	63	10.2	125,950	6.45	19,524
Site Preparation	65	38	10.2	25,194	6.45	3,906
2028						
Site Preparation	55	38	10.2	21,318	6.60	3,231
Grading	205	98	10.2	204,918	6.60	31,056
2029						
Grading	106	98	10.2	105,958	6.76	15,674
Building Construction	155	131	10.2	207,111	6.76	30,637
2030						
Building Construction	261	131	10.2	348,748	6.93	50,293
					Total Construction Vendor (HHDT) Fuel Consumption	***200,691***

Source: EIR Appendix J

Table 5.6-10: Estimated Construction Hauling Fuel Consumption

Construction Activity	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Phase 1 2025						
Demolition/Crushing	28	25	25	17,500	6.22	2,815
2026						
Grading	43	1,134	20	975,240	6.33	154,164
Phase 2						
2026						
Demolition	4	25	25	2,500	6.33	395
2027						
Demolition	196	25	25	122,500	6.45	18,990
2028						
Grading	205	121	20	496,100	6.60	75,186
2029						
Grading	106	121	20	256,520	6.76	37,946
					Total Construction Vendor (HHDT) Fuel Consumption	***289,496***
					(Offsite + Phases 1-2) Total Construction Vendor /Hauling Fuel Consumption	***635,035***

Source: EIR Appendix J

Overall, construction activities would comply with all existing regulations and would therefore not be expected to use large amounts of energy or fuel in a wasteful manner. Thus, impacts related to construction energy usage would be less than significant.

Operation

Less than Significant Impact. Once operational, the proposed Project would generate demand for electricity, natural gas, as well as gasoline or diesel for motor vehicle trips. Trip generation rates from the Traffic Impact Analysis prepared for the proposed Project (see Appendix R of this EIR) were used to model fuel demands from operation of the Project.

The proposed Project analysis includes two scenarios (A and B) that have been evaluated to determine the potential maximum reasonable level of operational fuel needs that could occur based on different potential truck trip lengths. Scenario A is based on trip length recommendations from SCAQMD's WAIRE Program of 15.3 miles for 2-axle (LHDT1 and LHDT2), 14.2 miles for 3-axle (MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks. Scenario B is based on trip lengths from Streetlight™ data collected for the Project vicinity that is 31 miles for LHDT and MHDT trucks and 71 miles for HHDT trucks.

Additionally, Phase 2 includes a 10.66-acre Overlay area. For purposes of a thorough and conservative analysis, Phase 2 is analyzed in a With Overlay Scenario and in a Without Overlay Scenario, as it is unknown at this time whether the Overlay area would be built out.

Scenario A With Overlay. As detailed in Table 5.6-11, under Scenario A, operation of Phase 1 would use approximately 3,508,599 gallons of vehicle fuel annually, and operation of Phase 2 with the Overlay would use approximately 3,405,287 gallons of vehicle fuel. Operation of the Project under Scenario A at buildout with the Overlay is estimated to annually use approximately 6,604,763 gallons of fuel.

Scenario A Without Overlay. In Scenario A, Phase 1 would use approximately 3,508,599 gallons of fuel annually; Phase 2 without the Overlay would use approximately 3,108,958 gallons of vehicle fuel annually; and operations during Specific Plan Buildout without the Overlay is estimated to use 6,308,434 gallons of vehicle fuel per year during operations, as shown in Table 5.6-12.

Scenario B with Overlay. As detailed in Table 5.6-13, under Scenario B, operation of Phase 1 would use approximately 4,084,551 gallons of vehicle fuel annually and operation of Phase 2 with the Overlay would use approximately 5,552,767 gallons of vehicle fuel. Operation of the Project under Scenario B at buildout with the Overlay is estimated to annually use approximately 9,275,507 gallons of vehicle fuel.

Scenario B Without Overlay. In Scenario B, Phase 1 would use approximately 4,084,551 gallons of vehicle fuel annually; Phase 2 without the Overlay would use approximately 4,084,551 gallons of vehicle fuel annually; and operations at Specific Plan Buildout without the Overlay are estimated to use 8,792,036 gallons of vehicle fuel per year during operations, as shown in Table 5.6-14.

Table 5.6-11: Estimated Annual Operational Vehicle Fuel Consumption - Scenario A - With Overlay

Phase	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Phase 1 (2026 OY)	LDA	33.43	35,739,266	1,068,952
	LDT1	25.70	2,735,911	106,446
	LDT2	26.01	14,760,716	567,532
	MDV	20.88	11,401,610	546,062
	LHDT1	16.89	2,844,677	168,385
	LHDT2	16.01	810,997	50,664
	MHDT	8.72	1,839,212	210,798
	HHDT	6.33	4,197,388	663,515
	OBUS	6.71	37,003	5,512
	UBUS	4.56	23,760	5,216
	MCY	42.07	1,665,310	39,584
	SBUS	6.43	82,186	12,774
	MH	5.86	369,866	63,157
Phase 1 Fuel Consumption (All Vehicles)			***76,507,902***	***3,508,599***
Phase 2 (2030 OY)	LDA	36.74	14,167,010	385,586
	LDT1	27.86	992,499	35,631
	LDT2	28.31	6,277,916	221,747
	MDV	22.91	4,429,562	193,374
	LHDT1	18.91	3,710,095	196,235
	LHDT2	17.52	1,063,450	60,691
	MHDT	9.72	3,864,757	397,570
	HHDT	6.93	13,172,716	1,899,650
	MCY	42.56	630,046	14,804
Phase 2 Fuel Consumption (All Vehicles)			***48,308,051***	***3,405,287***
Project Buildout (2030 OY)	LDA	36.74	49,680,493	1,352,163
	LDT1	27.86	3,480,466	124,948
	LDT2	28.31	22,015,230	777,618
	MDV	22.91	15,533,456	678,117
	LHDT1	18.91	6,436,376	340,434
	LHDT2	17.52	1,844,903	105,289
	MHDT	9.72	5,755,477	592,070
	HHDT	6.93	17,425,590	2,512,961
	OBUS	7.42	34,857	4,696
	UBUS	8.73	22,928	2,627
	MCY	42.56	2,209,422	51,913
	SBUS	6.63	80,496	12,149
	MH	5.95	296,249	49,778
Project Buildout (Phases 1-2) Fuel Consumption (All Vehicles)			***124,815,942***	***6,604,763***

Source: EIR Appendix J

Table 5.6-12: Estimated Annual Operational Vehicle Fuel Consumption - Scenario A - Without Overlay

Phase	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Phase 1 (2026 OY)	LDA	33.43	35,739,266	1,068,952
	LDT1	25.70	2,735,911	106,446
	LDT2	26.01	14,760,716	567,532
	MDV	20.88	11,401,610	546,062
	LHDT1	16.89	2,844,677	168,385
	LHDT2	16.01	810,997	50,664
	MHDT	8.72	1,839,212	210,798
	HHDT	6.33	4,197,388	663,515
	OBUS	6.71	37,003	5,512
	UBUS	4.56	23,760	5,216
	MCY	42.07	1,665,310	39,584
	SBUS	6.43	82,186	12,774
	MH	5.86	369,866	63,157
Phase 1 Fuel Consumption (All Vehicles)			***76,507,902***	***3,508,599***
Phase 2 (2030 OY)	LDA	36.74	12,939,774	352,184
	LDT1	27.86	906,523	32,544
	LDT2	28.31	5,734,083	202,538
	MDV	22.91	4,045,845	176,622
	LHDT1	18.91	3,389,713	179,289
	LHDT2	17.52	971,617	55,450
	MHDT	9.72	3,529,233	363,054
	HHDT	6.93	12,022,349	1,733,754
	MCY	42.56	575,468	13,521
Phase 2 Fuel Consumption (All Vehicles)			***44,114,604***	***3,108,958***
Project Buildout (2030 OY)	LDA	36.74	48,453,256	1,318,761
	LDT1	27.86	3,394,489	121,862
	LDT2	28.31	21,471,397	758,408
	MDV	22.91	15,149,739	661,366
	LHDT1	18.91	6,115,994	323,488
	LHDT2	17.52	1,753,069	100,048
	MHDT	9.72	5,419,954	557,554
	HHDT	6.93	16,275,223	2,347,065
	OBUS	7.42	34,857	4,696
	UBUS	8.73	22,928	2,627
	MCY	42.56	2,154,844	50,631
	SBUS	6.63	80,496	12,149
	MH	5.95	296,249	49,778
Project Buildout (Phases 1-2) Fuel Consumption (All Vehicles)			***120,622,495***	***6,308,434***

Source: EIR Appendix J

Table 5.6-13: Estimated Annual Operational Vehicle Fuel Consumption - Scenario B - With Overlay

Phase	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Phase 1 (2026 OY)	LDA	33.43	35,739,266	1,068,952
	LDT1	25.70	2,735,911	106,446
	LDT2	26.01	14,760,716	567,532
	MDV	20.88	11,401,610	546,062
	LHDT1	16.89	3,612,435	213,831
	LHDT2	16.01	1,029,880	64,338
	MHDT	8.72	2,628,700	301,284
	HHDT	6.33	6,894,452	1,089,862
	OBUS	6.71	37,003	5,512
	UBUS	4.56	23,760	5,216
	MCY	42.07	1,665,310	39,584
	SBUS	6.43	82,186	12,774
	MH	5.86	369,866	63,157
Phase 1 Fuel Consumption (All Vehicles)			***80,981,094***	***4,084,551***
Phase 2 (2030 OY)	LDA	36.74	14,167,010	385,586
	LDT1	27.86	992,499	35,631
	LDT2	28.31	6,277,916	221,747
	MDV	22.91	4,429,562	193,374
	LHDT1	18.91	6,829,475	361,226
	LHDT2	17.52	1,957,579	111,719
	MHDT	9.72	7,114,174	731,840
	HHDT	6.93	24,248,095	3,496,841
	MCY	42.56	630,046	14,804
Phase 2 Fuel Consumption (All Vehicles)			***66,646,358***	***5,552,767***
Project Buildout (2030 OY)	LDA	36.74	49,680,493	1,352,163
	LDT1	27.86	3,480,466	124,948
	LDT2	28.31	22,015,230	777,618
	MDV	22.91	15,533,456	678,117
	LHDT1	18.91	10,322,593	545,984
	LHDT2	17.52	2,958,836	168,861
	MHDT	9.72	9,794,383	1,007,554
	HHDT	6.93	31,198,033	4,499,098
	OBUS	7.42	34,857	4,696
	UBUS	8.73	22,928	2,627
	MCY	42.56	2,209,422	51,913
	SBUS	6.63	80,496	12,149
	MH	5.95	296,249	49,778
Project Buildout (Phases 1-2) Fuel Consumption (All Vehicles)			***147,627,441***	***9,275,507***

Source: EIR Appendix J

Table 5.6-14: Estimated Annual Operational Vehicle Fuel Consumption - Scenario B - Without Overlay

Phase	Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual Vehicle Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Phase 1 (2026 OY)	LDA	33.43	35,739,266	1,068,952
	LDT1	25.70	2,735,911	106,446
	LDT2	26.01	14,760,716	567,532
	MDV	20.88	11,401,610	546,062
	LHDT1	16.89	3,612,435	213,831
	LHDT2	16.01	1,029,880	64,338
	MHDT	8.72	2,628,700	301,284
	HHDT	6.33	6,894,452	1,089,862
	OBUS	6.71	37,003	5,512
	UBUS	4.56	23,760	5,216
	MCY	42.07	1,665,310	39,584
	SBUS	6.43	82,186	12,774
	MH	5.86	369,866	63,157
Phase 1 Fuel Consumption (All Vehicles)			***80,981,094***	***4,084,551***
Phase 2 (2030 OY)	LDA	36.74	12,939,774	352,184
	LDT1	27.86	906,523	32,544
	LDT2	28.31	5,734,083	202,538
	MDV	22.91	4,045,845	176,622
	LHDT1	18.91	6,239,742	330,033
	LHDT2	17.52	1,788,540	102,072
	MHDT	9.72	6,496,569	668,306
	HHDT	6.93	22,130,592	3,191,474
	MCY	42.56	575,468	13,521
Phase 2 Fuel Consumption (All Vehicles)			***60,857,136***	***5,069,295***
Project Buildout (2030 OY)	LDA	36.74	48,453,256	1,318,761
	LDT1	27.86	3,394,489	121,862
	LDT2	28.31	21,471,397	758,408
	MDV	22.91	15,149,739	661,366
	LHDT1	18.91	9,732,860	514,792
	LHDT2	17.52	2,789,796	159,214
	MHDT	9.72	9,176,778	944,021
	HHDT	6.93	29,080,530	4,193,731
	OBUS	7.42	34,857	4,696
	UBUS	8.73	22,928	2,627
	MCY	42.56	2,154,844	50,631
	SBUS	6.63	80,496	12,149
	MH	5.95	296,249	49,778
Project Buildout (Phases 1-2) Fuel Consumption (All Vehicles)			***141,838,219***	***8,792,036***

Source: EIR Appendix J

As described previously, CCR Title 13, Motor Vehicles, Section 2449(d)(3), *Idling*, limits idling times of trucks to no more than 5 minutes. The idling restrictions would preclude unnecessary and wasteful consumption of fuel due to unproductive idling of trucks; and thus, impacts would be less than significant.

In addition, as detailed in Section 5.3, *Air Quality*, Mitigation Measure AQ-8, that is included to reduce air quality impacts, requires installation of signage to ensure implementation of idling regulations. Mitigation Measure AQ-9 would provide electric vehicle charging stations and carpool parking, and Mitigation Measures AQ-11 through AQ-19 provide requirements for operations that would reduce the volume of operational fuel consumption beyond that identified herein. These mitigation measures would further ensure that potential impacts related to inefficient and wasteful use of fuel would be less than significant.

Onsite Cargo Handling Energy Demands. It is common for industrial warehouse buildings and large commercial retailers (such as big box stores) to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. As required by Mitigation Measure AQ-10, cargo handling equipment would be zero emission.

Onsite Equipment Energy Demands. Also, as detailed in the methodology section, it is anticipated that the proposed buildings would utilize diesel fire pumps and emergency generators. This analysis assumes that operation of Phase 1 of the Project would require seven diesel-fueled fire pumps to operate at 300 horsepower for 50 hours during the year and five emergency generators to operate at 300 horsepower for 50 hours during the year. For operation of Phase 2 of the Project, 16 diesel-fueled fire pumps would operate at 300 horsepower for 50 hours during the year and 16 emergency generators would operate at 300 horsepower for 50 hours during the year. Without implementation of the Overlay in Phase 2, the Project would operate 15 diesel-fueled fire pumps for 50 hours during the year and 15 emergency generators for 50 hours during the year.

As presented in Table 5.6-15, during operation of the Project with Overlay, stationary sources would consume an estimated 6,779 gallons of diesel fuel during Phase 1 and 18,077 gallons of diesel fuel during Phase 2. Operation of the Project at Specific Plan Buildout with the Overlay would require an estimated 24,856 gallons of diesel fuel.

Table 5.6-15: Estimated Annual Operational Stationary Source Fuel Consumption - With Overlay

Phase	Equipment	HP Rating	Quantity	Usage Hours	Annual Hourly Usage	Load Factor	HP-hrs/day	Total Fuel Consumption
1	Fire Pump	300	7	1	50	0.73	2,100	3,954
	Emergency Generator	300	5	1	50	0.73	1,500	2,825
Phase 1 Stationary Source Fuel Demand (Gallons Diesel Fuel)								***6,779***
2	Fire Pump	300	16	1	50	0.73	4,800	9,039
	Emergency Generator	300	16	1	50	0.73	4,800	9,039
Phase 2 Stationary Source Fuel Demand (Gallons Diesel Fuel)								***18,077***
Project Buildout (Phase 1 & Phase 2) Stationary Source Fuel Demand (Gallons Diesel Fuel)								***24,856***

Source: EIR Appendix J

As presented in Table 5.6-16, during operation of the Project without the Overlay, stationary sources would consume an estimated 6,779 gallons of diesel fuel during Phase 1 and 16,947 gallons of diesel fuel during Phase 2. Operation of the Project at Specific Plan Buildout without the Overlay would require an estimated 23,726 gallons of diesel fuel.

Table 5.6-16: Estimated Annual Operational Stationary Source Fuel Consumption - Without Overlay

Phase	Equipment	HP Rating	Quantity	Usage Hours	Annual Hourly Usage	Load Factor	HP-hrs/day	Total Fuel Consumption
1	Fire Pump	300	7	1	50	0.73	2,100	3,954
	Emergency Generator	300	5	1	50	0.73	1,500	2,825
Phase 1 Stationary Source Fuel Demand (Gallons Diesel Fuel)								***6,779***
2	Fire Pump	300	15	1	50	0.73	4,500	8,474
	Emergency Generator	300	15	1	50	0.73	4,500	8,474
Phase 2 Stationary Source Fuel Demand (Gallons Diesel Fuel)								***16,947***
Project Buildout (Phase 1 & Phase 2) Stationary Source Fuel Demand (Gallons Diesel Fuel)								***23,726***

Source: EIR Appendix J

Project Buildings Energy Demands. The proposed buildings would consume electricity and natural gas. Electricity and natural gas would be supplied to the Project by SCE and SoCal Gas. Annual electricity and natural gas demands of the Project are summarized in Tables 5.6-17 and 5.6-18. In the Project with Overlay Scenario, building operational activities would require an estimated 91,052,390 kWh/year of electricity and 9,797,660 kBTU/year of natural gas. In the Project without Overlay Scenario, building operational activities would require an estimated 84,977,596 kWh/year of electricity and 9,797,660 kBTU/year of natural gas.

It should be noted that the end user of the proposed Project is not known at this time. As such, the precise building energy usage estimates, as well as the extent to which onsite renewable energy sources may offset the building's energy consumption is unknown as well. However, buildings would be designed solar-ready, and the Project will be designed and built in such a manner as to facilitate the installation of solar photovoltaics in the future. At the time an end user is selected, an analysis of the expected energy needs will be performed in order to determine the appropriate type and quantity of renewable energy appropriate for the end use. However, it should be noted that as of 2022, approximately one third of the power generated by Southern California Edison is from renewable sources, and this is anticipated to continue to increase under the State's Renewable Portfolio Standard, which requires retail sellers of electric services to increase procurement from eligible renewable resources to 44 percent of total retail sales by 2024. The amount of retail electricity provided from renewable sources is expected to further increase significantly in order to meet the state goal of carbon neutrality by 2045.

The industrial portion of the proposed Project would not connect to the natural gas infrastructure and would not utilize natural gas. Natural gas associated with the commercial portion of the Project was calculated by CalEEMod using default parameters.

Table 5.6-17: Estimated Annual Operational Building Energy Consumption - With Overlay

Phase	Land Use	Electricity Demand (kWh/year)	Natural Gas Demand (kBTU/year)	
1	TUMF High Cube (Building 2, 6, and 7)	5,555,038	0	
	Parcel Hub (Building 1)	1,482,321	0	
	General Light Industrial (Building 3, 4, and 5)	3,462,470	0	
	Medical Office Building	95,937	151,727	
	Large Format Retail Anchor	5,358,917	2,803,892	
	Shopping Center	1,852,582	1,124,295	
	Supermarket	746,046	390,346	
	Fast Casual Restaurant	313,717	1,019,002	
	High-Turnover (Sit -Down) Restaurant	741,697	2,409,150	
	Fast Food Restaurant w DT	386,264	1,254,647	
	Coffee/Donut Shop w DT	63,207	205,306	
	Gasoline/Service Station (12 VFP)	97,872	439,296	
	Parking Lot	984,872	0	
Phase 1 Project Energy Demand			***21,140,941***	***9,797,660***
2	Industrial Park	63,836,655	0	
	Industrial Park (Overlay)	6,074,794	0	
Phase 2 Project Energy Demand			***69,911,449***	***0***
Project Buildout (Phase 1 & Phase 2) Project Energy Demand			***91,052,390***	***9,797,660***

Source: EIR Appendix J

Table 5.6-18: Estimated Annual Operational Building Energy Consumption - Without Overlay

Phase	Land Use	Electricity Demand (kWh/year)	Natural Gas Demand (kBTU/year)	
1	TUMF High Cube (Building 2, 6, and 7)	5,555,038	0	
	Parcel Hub (Building 1)	1,482,321	0	
	General Light Industrial (Building 3, 4, and 5)	3,462,470	0	
	Medical Office Building	95,937	151,727	
	Large Format Retail Anchor	5,358,917	2,803,892	
	Shopping Center	1,852,582	1,124,295	
	Supermarket	746,046	390,346	
	Fast Casual Restaurant	313,717	1,019,002	
	High-Turnover (Sit -Down) Restaurant	741,697	2,409,150	
	Fast Food Restaurant w DT	386,264	1,254,647	
	Coffee/Donut Shop w DT	63,207	205,306	
	Gasoline/Service Station (12 VFP)	97,872	439,296	
	Parking Lot	984,872	0	
Phase 1 Project Energy Demand			***21,140,941***	***9,797,660***
2	Industrial Park	63,836,655	0	
Phase 2 Project Energy Demand			***63,836,655***	***0***
Project Buildout (Phase 1 & Phase 2) Project Energy Demand			***84,977,596***	***9,797,660***

Source: EIR Appendix J

As detailed in the previous tables, the operational use of energy includes the heating, cooling, and lighting of the buildings, water heating, operation of electrical systems and plug-in appliances within the buildings, parking lots and outdoor lighting, and the transport of electricity, natural gas, and water to the areas where they would be consumed. This use of energy is typical for urban development, and the Project would implement all applicable Title 24, CALGreen, and CARB energy related standards and no operational activities or land uses would occur that would result in extraordinary energy consumption. The proposed Project would include solar infrastructure on each industrial building as specified by Mitigation Measure GHG-5, which requires solar panels to provide 100 percent of the power to the office area and utilize that onsite power for electric plus ins at loading docks and onsite motorized equipment. In addition, the Project would include EV infrastructure throughout commercial areas for employee and visitor parking and EV infrastructure for each industrial building for employee use. Further, the Project would implement Mitigation Measure GHG-4, which would require the Project to be designed to achieve LEED Silver certification. Thus, impacts related to inefficient and wasteful use of energy would be less than significant.

Mitigated Building Energy Consumption. As detailed in Section 5.3, *Air Quality* and Section 5.8, *Greenhouse Gas Emissions*, Mitigation Measures AQ-1 through AQ-19 and Mitigation Measures GHG-1 through GHG-5 have been included to reduce air quality and greenhouse gas emissions. However, these measures also reduce energy consumption. Mitigation Measure GHG-4 provides for meeting LEED Silver building standards, which would have a direct reduction of energy usage from operation of the proposed buildings. The reduced volumes of energy from implementation of LEED Silver building standards are provided below.

As presented in Table 5.6-19, with mitigation, buildout of the Project with Overlay would consume an estimated 88,679,855 kWh/year of electricity and 9,797,660 kBTU/year of natural gas from operations

of the proposed buildings. The industrial buildings would not utilize natural gas. The natural gas use is associated with the commercial portion of the Project.

Table 5.6-19: Annual Operational Building Energy Consumption - With Overlay - With Mitigation

Phase	Land Use	Electricity Demand (kWh/year)	Natural Gas Demand (kBTU/year)
1	TUMF High Cube (Building 2, 6, and 7)	5,555,038	0
	Parcel Hub (Building 1)	1,482,321	0
	General Light Industrial (Building 3, 4, and 5)	3,460,731	0
	Medical Office Building	95,889	151,727
	Large Format Retail Anchor	3,536,697	2,803,892
	Shopping Center	1,827,696	1,124,295
	Supermarket	492,364	390,346
	Fast Casual Restaurant	264,822	1,019,002
	High-Turnover (Sit -Down) Restaurant	626,100	2,409,150
	Fast Food Restaurant w DT	326,063	1,254,647
	Coffee/Donut Shop w DT	53,356	205,306
	Gasoline/Service Station (12 VFP)	97,555	439,296
	Parking Lot	984,872	0
	Phase 1 Energy Demand	***18,803,505***	***9,797,660***
2	Industrial Park	63,804,606	0
	Industrial Park (Overlay)	6,071,744	0
	Phase 2 Energy Demand	***69,876,350***	***0***
	Specific Plan Buildout (Phase 1 & Phase 2) Energy Demand	***88,679,855***	***9,797,660***

Source: EIR Appendix J

As presented in Table 5.6-20, buildout of the Project without the Overlay would result in the demand for an estimated 82,608,111 kWh/year of electricity and 9,797,660 kBTU/year of natural gas from building operations.

Table 5.6-20: Annual Operational Building Energy Consumption Without Overlay With Mitigation

Phase	Land Use	Electricity Demand (kWh/year)	Natural Gas Demand (kBTU/year)
1	TUMF High Cube (Building 2, 6, and 7)	5,555,038	0
	Parcel Hub (Building 1)	1,482,321	0
	General Light Industrial (Building 3, 4, and 5)	3,460,731	0
	Medical Office Building	95,889	151,727
	Large Format Retail Anchor	3,536,697	2,803,892
	Shopping Center	1,827,696	1,124,295
	Supermarket	492,364	390,346
	Fast Casual Restaurant	264,822	1,019,002
	High-Turnover (Sit -Down) Restaurant	626,100	2,409,150
	Fast Food Restaurant w DT	326,063	1,254,647
	Coffee/Donut Shop w DT	53,356	205,306
	Gasoline/Service Station (12 VFP)	97,555	439,296
	Parking Lot	984,872	0
	Phase 1 Energy Demand	***18,803,505***	***9,797,660***
2	Industrial Park	63,804,606	0
	Phase 2 Energy Demand	***63,836,655***	***0***
	Specific Plan Buildout (Phase 1 & Phase 2) Energy Demand	***82,608,111***	***9,797,660***

Source: EIR Appendix J

IMPACT E-2: THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY.

Less than Significant Impact. As described previously, the proposed Project would be required to meet the CCR Title 24 energy efficiency standards in effect during permitting of proposed Project. 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 line with standard City conditions of approval and Mitigation Measure AQ-8 for air quality, Project plans and specifications shall require signs at loading dock facilities that identify the anti-idling regulations. Thus, the Project would not conflict with the idling limits imposed by CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling.

The proposed Project would include solar infrastructure on each building to support onsite electricity use. Although the Project's future tenants are not currently known, and the use of solar panels is generally tailored to the electrical demands of the tenant, the building tenants would be able to install solar panels pursuant to Mitigation Measure GHG-5, which requires solar panels to provide 100 percent of the power to the office area and utilize that onsite power for electric plus ins at loading docks and onsite motorized equipment. In addition, each industrial building would be designed to attain LEED Silver certification, at a minimum, as required by Mitigation Measure GHG-4, which would ensure that new construction within the Project area would implement renewable energy and utilize energy efficiently. Therefore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

5.6.7 CUMULATIVE IMPACTS

The geographic context for analysis of cumulative impacts regarding energy includes past, present, and future development within southern California because energy supplies (including electricity, natural gas, and petroleum) are generated and distributed throughout the southern California region.

All development projects throughout the region would be required to comply with the energy efficiency standards in the Title 24 requirements. Additionally, some of the developments could provide for additional reductions in energy consumption by achievement of LEED certification or use of additional solar panels, sky lights, or other energy efficiency infrastructure. With implementation of the existing energy conservation regulations, cumulative electricity and natural gas consumption would not be cumulatively wasteful, inefficient, or unnecessary.

Petroleum consumption associated with the proposed Project would be primarily attributable to transportation, especially vehicular use. However, state fuel efficiency standards and alternative fuels policies (per AB 1007 Pavely) would contribute to a reduction in fuel use, and the federal Energy Independence and Security Act and the state Long Term Energy Efficiency Strategic Plan would reduce reliance on non-renewable energy resources.

As detailed previously, the proposed Project would not result in wasteful or inefficient use of energy, and mitigation measures that are included to reduce air quality and greenhouse gas emissions would support the reduction of energy consumption and promote efficient use of energy. For these reasons, the consumption of energy resources would not occur in a wasteful, inefficient, or unnecessary manner and would be less than cumulatively considerable.

5.6.8 EXISTING REGULATIONS

As discussed above, the Project would be required to comply with the following existing regulations and plans, programs, or policies which would help to reduce the potential impacts of the Project.

State Regulations

- California Energy Code (Code of Regulations, Title 24 Part 6).
- CALGreen Building Standards Code

5.6.9 PROJECT DESIGN FEATURES

None.

5.6.10 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, Impacts E-1and E-2 would be less than significant.

5.6.11 MITIGATION MEASURES

Potential impacts related to energy would be less than significant and no mitigation measures are required.

5.6.12 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Potential impacts related to energy would be less than significant.

5.6.13 REFERENCES

California Energy Commission (CEC). (2023). *Title 24 Building Energy Standards* https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency

California Gas and Electric Utilities (CGEU). (2024). *California Gas Report*. https://www.socalgas.com/regulatory/cgr.shtml

City of Perris. (July 2005a). *General Plan 2030*. Retrieved September 12, 2023, from https://www.cityofperris.org/departments/development-services/general-plan

City of Perris. (July 2005b). *General Plan 2030 Environmental Impact Report*. Retrieved September 12, 2023, from https://www.cityofperris.org/home/showpublisheddocument/451/637203139698630000

Southern California Edison (SCE). (2023). *Edison International 2023 Annual Report*. https://www.edison.com/investors/financial-reports-information/annual-reports

Southern California Edison (SCE). http://sce.com/wps/portal/home/about-us/reliability

Urban Crossroads. (April 2025c). *Harvest Landing Specific Plan Energy Analysis*. **(EIR Appendix J)**

This page intentionally left blank.