Appendix D

Energy Consumption Report and Worksheets

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MEMORANDUM

To:	City of Los Angeles Planning Department
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Date:	September 4, 2026
Subject:	525 South Virgil Avenue Project, Los Angeles, CA – Energy Assessment

Introduction

This memorandum documents the results of an Energy Assessment completed for the 525 South Virgil Avenue Project ("Project" or "proposed Project"). This Energy Assessment evaluates the potential energy consumption associated with Project construction and operations and determines the level of impact the Project's energy consumption would have on the environment.

Project Location

The Project is currently developed with a vacant, approximately 56,072 square foot (sf), four-story commercial building constructed in 1965, a surface parking lot, and metal fencing along the perimeter of the Project Site. The Project Site is bordered by adjacent office/medical, commercial, and residential development to the north, Virgil Avenue to the east, commercial development, including a Carl's Jr. restaurant, to the south, and Westmoreland Avenue and residential development to the west. Directly north of the Project Site is a residential apartment building and a medical office building. East of the Project Site across South Virgil Avenue is a surface parking lot, pharmacy, food bank, and medical clinic. South of the Project Site is a surface parking lot, restaurants, auto body shop, and a hair salon. Directly to the west of the Project Site across Westmoreland Avenue is a church, multi-family housing, and associated surface parking.

Regional vehicle access to the Project Site is provided by the U.S. 101 (US 101 Freeway) located 0.9 miles to the north of the Project Site, California State Route 110 (I-110) Freeway located 1.74 miles to the southeast of the Project Site, and California State Route 10 (I-10) located 1.87 miles south of the Project Site. Local vehicle access to the Project Site is provided via 5th Street to the north, Virgil Avenue to the east, 6th Street to the south, and Westmoreland Avenue to the west. The Project Site is in proximity to several transit options. Numerous Metro transit and Los Angeles

Department of Transportation (LADOT) transit bus lines run and stop in the greater vicinity of the Project, including Metro Lines 18, 20, and 204 and the LADOT Wilshire Center/Koreatown Clockwise and Counterclockwise Line. Los Angeles Metro Bus Route 18 is located approximately 310 feet southwest of the Project Site and runs east to west on 6th Street. LA Metro Bus Route 20 is located approximately 962 feet south of the Project Site and runs east to west on Wilshire Boulevard. LA Metro Bus Route 204 and LADOT Wilshire Center/Koreatown Clockwise and Counterclockwise Bus Route are located approximately 0.3 miles west of the Project Site and run north to south along Vermont Avenue. The Project Site is located approximately 0.25 miles northeast of the Wilshire and Vermont Metro Station, which serves the B Line (formally the Red line) and the D Line (formally the Purple Line). Additionally, the Project Site is approximately 0.8 miles northeast of the Wilshire and Normandie Station, which serves the D line (formally the Purple line).

Project Description

The Project would demolish the existing 56,072 sf vacant office building and its associated parking lot and construct an approximately 252,876 sf, eight-story self-storage building and ground-level parking. The ground floor would also contain an office, a lobby, restrooms, elevators, a transformer yard, and bicycle parking spaces. A street-level display window on Virgil Avenue showcasing products available for purchase would be located on the ground floor of the Project. Also located on the ground floor would be approximately 24 automobile stalls, including Americans with Disabilities Act (ADA) compliant stalls and electric vehicle (EV) parking stalls. The Project would also include some drought-tolerant landscaping as well as multiple large murals.

Open Space and Landscaping

The Project would not include residential uses; therefore, no open space requirements would apply to the Project. There are no trees on the Project Site and four street trees (*Ficus Nitida*) located along Virgil Avenue. The Project proposes the removal of the two northern street trees and the retention of the two southern street trees. None of the trees are protected by the City of Los Angeles Protected Tree and Shrubs Ordinance No. 186,873. Furthermore, any removal of street trees would require approval from the City of Los Angeles Bureau of Street Services. Additionally, the Project would include some drought-tolerant landscaping and green roof trays.

Site Security

During construction, the Project Site would be secured with perimeter fencing. During Project operations, the Project would be open seven days a week. The front office would be open to the public from approximately 9:00 a.m. to 6:00 p.m. daily, where visitors can purchase supplies and

other conveniences, but otherwise the storage portions of the facility would only be accessible to customers and only between the hours of approximately 6:00 a.m. to 10:00 p.m. daily.

The Project would incorporate numerous safety features, including security cameras, burglar alarms, access control to the building, and bolt-cutter resistant cylinder locks. The plans for the Project would incorporate guidelines as identified in the "Design Out Crime Guidelines: Crime Prevention Through Environmental Design," published by the Los Angeles Police Department. The Project would include well-illuminated public and semi-public spaces designed with minimal dead space to eliminate areas of concealment.

Sustainability Features

The Project would comply, as applicable, with the Green Building Code, which requires the use of numerous conservation measures beyond those required by Title 24 of the California Administrative Code. The Green Building Code contains both mandatory and voluntary green building measures to conserve energy. The Project would include EV spaces, bike parking and storage, and low-flow water fixtures. The Project would utilize drought tolerant landscaping and water efficient irrigation. The Project's infill location would promote the concentration of development in an urban location with extensive infrastructure and access to public transit facilities, which would reduce vehicle miles traveled (VMT) for the Project.

Anticipated Construction Schedule

Development of the Project would require the export of approximately 5,600 cubic yards (cy) of soil (7,280 cy with a 30-percent swell factor applied). All necessary utility improvements, including water, sewer, and storm drain, would be constructed within the Project Site. For the purposes of this analysis, the Project's construction schedule is assumed to be approximately 18 months, with construction beginning in the second quarter of 2027 and ending in the fourth quarter of 2028. The Project is anticipated to be operational in 2028.

Construction activities would be performed in accordance with all applicable State and federal laws and City Codes and policies with respect to building construction and activities. As provided in Section 41.40 of the Los Angeles Municipal Code (LAMC), the permissible hours of construction within the City are 7:00 a.m. to 9:00 p.m. Monday through Friday, and between 8:00 a.m. and 6:00 p.m. on any Saturday or national holiday. No construction activities are permitted on Sundays.

Environmental Setting

This memorandum analyzes the Project's energy consumption to evaluate the Project's potential direct and indirect environmental impacts, which include the depletion of

nonrenewable resources and construction- and operational-related pollutant emissions. The energy resources considered in this analysis are electricity, diesel fuel, and gasoline.

Electricity

Electricity as a utility is a man-made resource. Production of electricity requires the consumption or conversion of various resources into energy. Over the past 15 years, electricity generation in California has undergone a transition from oil and gas sources to renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Electricity is distributed through a network of transmission and distribution lines commonly referred to as a power grid. Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours (Wh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), while energy use is measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh).

The Los Angeles Department of Water and Power (LADWP) provides electrical services to the Project Site. LADWP serves approximately 4 million people in the City and is the nation's largest municipal electric utility.[1]

According to the California Energy Commission (CEC), in 2024, the total electricity demand for the LADWP service area was approximately 21,399 GWh and the demand for Los Angeles County (County) was approximately 64,896 GWh.[2] The residential, non-residential, and total electricity demand between 2014 and 2024 in the County is summarized in Table 1: Annual Los Angeles County Electricity Consumption. In 2014, residential uses comprised approximately 30 percent of the County's electricity demand, while non-residential uses comprised approximately 70 percent. By 2024, these percentages changed to approximately 33 percent for residential uses and approximately 67 percent for non-residential uses. Although the total electricity demand has fluctuated from year to year, overall, between 2014 and 2024, the County's total electricity demand decreased by approximately 7 percent.

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1 Los Angeles Department of Water and Power, Power Strategic Long-Term Resource Plan, page 1-4, 2022, https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf. Accessed October 22, 2025.

2 California Energy Commission, Electricity Consumption, 2025, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed October 22, 2025.

Table 1: Annual Los Angeles County Electricity Consumption			
Year	Electricity Consumption (GWh)		
	Residential	Non-residential	Total
2014	20,623	48,897	69,520
2015	20,388	49,000	69,388
2016	20,175	48,985	69,160
2017	20,512	47,835	68,347
2018	20,326	47,214	67,540
2019	20,221	45,472	65,693
2020	22,304	41,978	64,282
2021	21,506	43,288	64,794
2022	22,054	45,313	67,367
2023	20,792	42,421	63,213
2024	21,554	43,342	64,896
GWh = billion watt- hour			
Source: California Energy Commission, Electricity Consumption, 2025, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed October 22, 2025.			

Natural Gas

Natural gas is a hydrocarbon fuel found in reservoirs beneath the Earth's surface and is composed primarily of methane (CH_4). It is used for space and water heating, process heating, electricity generation, and as transportation fuel. Use of natural gas to generate electricity is expected to increase in the coming years because it is a relatively clean alternative to other fossil fuels (e.g., oil and coal). In California and throughout the western United States, many new electrical generation plants fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. California's natural-gas-fired electric generation decreased by one percent in 2024, accounting for 40 percent of in-state generation.[3] Natural gas usage is typically quantified using the British Thermal Unit (BTU) or Therms, which is equal to 10,000 BTUs.

Southern California Gas Company (SoCalGas) is the service provider for the City and serves approximately 21 million people in a 24,000-square-mile service territory.[4] SoCalGas forecasts that the total demand for natural gas will decline at an annual rate of 0.7 percent per year from 2024 to 2040.[5] The decline in demand is due to reduced gas demand in the major market

[3] California Energy Commission, 2024 Total System Electric Generation, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2024-total-system-electric-generation. Accessed October 22, 2025.

[4] SoCalGas, Company Profile, https://www.socalgas.com/about-us. Accessed October 22, 2025.

[5] California Gas and Electric Utilities, 2024 California Gas Report, page 104, 2024, https://www.socalgas.com/sites/default/files/2024-08/2024-California-Gas-Report-Final.pdf. Accessed October 22, 2025.

segment areas of residential, electric generation, commercial, and industrial; aggressive energy efficiency programs; and Statewide efforts to minimize greenhouse gas (GHG) emissions.[6]

According to the CEC, in 2024, the natural gas demand in the SoCalGas service area was approximately 11,104 million therms, while the natural gas usage attributable to the County was approximately 2,830 million therms.[7] Table 2: Annual Los Angeles County Natural Gas Consumption summarizes the residential, non-residential, and total natural gas demand between 2014 and 2024 in the County. In 2014, residential uses comprised approximately 39 percent of the County's natural gas demand, while non-residential uses comprised approximately 61 percent. By 2024, these percentages changed to approximately 38 percent for residential uses and approximately 62 percent for non-residential uses. Although total electricity demand has fluctuated from year to year, overall, between 2014 and 2024, the County's total natural gas demand increased by approximately one percent.

Table 2: Annual Los Angeles County Natural Gas Consumption

Year	Natural Gas Consumption (Million Therms)		
	Residential	Non-residential	Total
2014	1,079	1,715	2,794
2015	1,085	1,676	2,761
2016	1,111	1,767	2,878
2017	1,115	1,841	2,956
2018	1,108	1,814	2,922
2019	1,236	1,813	3,048
2020	1,238	1,699	2,937
2021	1,138	1,745	2,883
2022	1,122	1,698	2,820
2023	1,212	1,744	2,956
2024	1,081	1,749	2,830

Source: California Energy Commission, Natural Gas Consumption, 2025, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-1. Accessed September 8, 2025.

Fuel

Of California's total energy usage, the breakdown by sector is 44.5 percent transportation, 21.4 percent industrial, 17.1 percent residential, and 17.0 percent commercial.[8] Transportation energy demand in California is largely related to vehicular traffic (e.g., passenger vehicles, light

[6] California Gas and Electric Utilities, 2020 California Gas Report, page 4, 2020, https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_Utility_Biennial_Comprehensive_Filing.pdf. Accessed December 9, 2025.

[7] California Energy Commission, Natural Gas Consumption, 2025, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-1. Accessed October 22, 2025.

[8] United States Energy Information Administration, California State Profile and Energy Estimates, California Energy Consumption by End-Use Sector, 2025, https://www.eia.gov/state/?sid=CA#tabs-2. Accessed October 22, 2025.

duty trucks, semi-trucks, etc.), with most transportation-related energy demand currently met by gasoline and diesel fuel.[9, 10, 11] Gasoline and diesel fuel is supplied to City residents and non-residents by widely distributed service stations both inside and around the City. Table 3: Annual Los Angeles County Automotive Fuel Consumption summarizes the gasoline and diesel fuel demand between 2014 and 2024 in the County. Between 2014 and 2024, the County's diesel consumption has increased by approximately 16 percent and gasoline consumption has decreased by approximately 3 percent.

Table 3: Annual Los Angeles County Automotive Fuel Consumption

Year	Fuel Consumption (Million Gallons)	
	Diesel	Gasoline
2014	441	3,667
2015	446	3,774
2016	472	3,896
2017	489	3,867
2018	476	3,820
2019	474	3,750
2020	474	3,298
2021	489	3,722
2022	498	3,681
2023	505	3,623
2024	511	3,541

Source: California Air Resources Board, EMFAC2021, Emissions Inventory, 2022, https://arb.ca.gov/emfac/emissions-inventory/cd60f29daaedd924a75a9316202d7f56a9b573e5. Accessed October 22, 2025.

Regulatory Setting

Energy Conservation

In 1975, largely in response to the oil crisis of the 1970s, the California State Legislature adopted Assembly Bill (AB) 1575, which created the CEC. The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy

[9] California Energy Commission, California Retail Fuel Outlet Annual Reporting (CEC-A15) Results, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting. Accessed December 9, 2025.

[10] California Energy Commission, California Gasoline Data, Facts, and Statistics, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics. Accessed December 9, 2025.

[11] California Energy Commission, Diesel Fuel Data, Facts, and Statistics, https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics. Accessed December 9, 2025.

emergencies, and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliances and building energy efficiency standards.[12]

Energy and Independence Security Act of 2007

The Energy Independence and Security Act (EISA; Public Law 110-140) was signed into law by former President George W. Bush on December 19, 2007. The purpose of the EISA is to achieve energy security in the United States by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on GHG capture and storage.[13] Under the EISA, the Renewable Fuel Standard (RFS) program (RFS2) was expanded in several key ways:

- Expanded the RFS program to include diesel in addition to gasoline;
- Increased the volume of renewable fuel required to be blended into transportation fuel;
- Established new categories of renewable fuel and set separate volume requirements for each; and
- Required the United States Environmental Protection Agency (U.S. EPA) to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

Renewable Portfolio Standards[14]

In 2002, California established its Renewable Portfolio Standard (RPS) program with the goal of increasing the annual percentage of renewable energy in the State's electricity mix by the equivalent of at least one percent of sales, with an aggregate total of 20 percent by 2017. The

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12 California State Auditor, California Energy Commission: Although External Factors Have Caused Delays in Its Approval of Sites, Its Application Process Is Reasonable, page 7, 2001, https://information.auditor.ca.gov/pdfs/reports/2001-118.pdf. Accessed December 9, 2025.

13 United States Environmental Protection Agency, Summary of the Energy Independence and Security Act, https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act#:~:text=move%20the%20United%20States%20toward,the%20appliance/lighting%20efficiency%20standards. Accessed December 9, 2025.

14 California Public Utilities Commission, Renewable Portfolio Standard (RPS) Program, 2025, https://www.cpuc.ca.gov/rps/. Accessed October 22, 2025.

California Public Utilities Commission (CPUC) subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code §399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order (EO) S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, Governor Schwarzenegger continued California's commitment to the RPS by signing EO S-21-09, which directs under its AB 32 authority to enact regulations to help the State meet its RPS goal of 33 percent renewable energy by 2020. In September 2010, California Air Resources Board (CARB) adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill (SB) 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030.

SB 100 established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under SB 100, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target. Approved in 2022, SB 1020 revised the State policy to provide that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045; and, 100 percent of electricity procured to serve all State agencies by December 31, 2035.

California Building Energy Efficiency Standards: Title 24, Part 6

The California Energy Code (Title 24, Part 6) was created as part of the California Building Standards Code (Title 24 of the California Code of Regulations [CCR]) by the California Building Standards Commission in 1978 to establish statewide building energy efficiency standards to reduce California's energy use. In general, the Energy Code is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The CEC updates the Energy Code every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The Energy Code conserves non-renewable resources, such as natural gas, and ensures renewable resources are extended as far as possible to reduce the need for constructing new power plants.

In December 2024, the 2025 Energy Code was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2025 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new

homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2026, must comply with the 2025 Energy Code.

The standards include mandatory requirements for space conditioning (cooling and heating), water heating, indoor and outdoor lighting systems, as well as equipment in non-residential, high-rise residential, and hotel or motel buildings. In addition to the mandatory requirements, the standards call for further energy efficiency that can be provided through a choice between performance and prescriptive compliance approaches. Separate sections apply to low-rise residential and to non-residential, high-rise residential, and hotel or motel buildings.

California Green Building Standards

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in December 2024 (2025 CALGreen Code) and continues to improve upon the existing standards for new construction of, and additions and alterations to, residential and non-residential buildings. Buildings whose permit applications are applied for on or after January 1, 2026, must comply with the 2025 CALGreen Code.[15]

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through EO S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10-percent total reduction in 2020. Petroleum importers, refiners, and wholesalers can either develop their own low carbon fuel products or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.

[15] California Energy Commission, 2025 California Green Building Standards Code (CALGreen), 2025, https://www.energy.ca.gov/proceeding/2025-california-green-building-standards-code-calgreen. Accessed October 21, 2025.

CARB Scoping Plan

Adopted December 15, 2022, CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high global warming potential (GWP); providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen.

The key elements of the 2022 CARB Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emissions transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

City of Los Angeles General Plan

The City does not have a General Plan Element specific to energy conservation but has several stated goals, objectives, or policies in the City's General Plan Air Quality Element (Air Quality Element), the Plan for a Healthy Los Angeles, and the Mobility Plan 2035 (Mobility Plan) that encourage conservation of energy sources.

Air Quality Element

The following Air Quality Element goals and objectives would also serve to reduce energy consumption:

Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.

- Objective 2.1: Reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.
- Objective 2.2: Increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.

Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

- Objective 4.2: Reduce vehicle trips and vehicle miles traveled associated with land use patterns.

Goal 5: Energy Efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implementation of conservation measures including passive methods such as site orientation and tree planting.

- Objective 5.1: Increase energy efficiency of City facilities and private developments.

Mobility Plan 2035

In August 2015, the City Council adopted the Mobility Plan, which serves as the City's General Plan circulation element. The City Council has adopted several amendments to the Mobility Plan since its initial adoption, including the most recent amendment on September 7, 2016. The Mobility Plan incorporates "complete street" principles and lays the policy foundation for how the City's residents interact with their streets. Components of the Mobility Plan would serve to reduce VMT and the associated fuel consumption.

City of Los Angeles Sustainable City pLAn (2015)

In 2015, the City released the Sustainable City pLAn, which is aimed at increasing green building standards for new construction, developing blue, green, and black waste bin infrastructure, and reducing water use by 20 percent. In 2019, the plan was updated with new goals through the Green New Deal.

L.A.'s Green New Deal

In April 2019, the Sustainable City pLAn was updated and renamed as *L.A.'s Green New Deal* (Green New Deal), which consists of a program of actions designed to create sustainability-based performance targets through 2050 to advance economic, environmental, and equity objectives.[16] The following goals are applicable to energy conservation and efficiency:

- Reduce potable water use per capita by 22.5 percent by 2025, 25 percent by 2035, and maintain or reduce 2035 per capita water use through 2050.

- Reduce building energy use per square feet for all building types 22 percent by 2025, 34 percent by 2035, and 44 percent by 2050 (from a baseline of 68 thousand BTU per square foot in 2015).

[16] City of Los Angeles, L.A.'s Green New Deal, 2019.

- All new buildings will be net zero carbon by 2030, and 100 percent of buildings will be net zero carbon by 2050.
- Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides, or transit to at least 35 percent by 2025, 50 percent by 2035, and maintain at least 50 percent by 2050.
- Reduce VMT per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050.
- Increase the percentage of electric and zero emission vehicles (ZEV) in the city to 25 percent by 2025, 80 percent by 2035, and 100 percent by 2050.

Los Angeles Green Building Code

In 2019, the Los Angeles Green Building Code (LAGBC; Article 9 of Chapter IX of the LAMC was amended to incorporate portions of the CALGreen Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to non-residential and high-rise residential buildings. The LAGBC requires projects to incorporate infrastructure to support future EV supply equipment, reduce the overall use of potable water by 20 percent, and meet the applicable Energy Code provisions.

Significance Criteria

In accordance with State California Environmental Quality Act (CEQA) Guidelines, the effects of a project are evaluated to determine whether they would result in a significant adverse impact on the environment. This memorandum will focus on these effects and offer mitigation measures, if applicable, to reduce or avoid any significant impacts that are identified. The criteria used to determine the significance of impacts may vary depending on the nature of the project. According to Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact related to energy, if it would:

(a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation; and/or

(b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Methodology

This impact analysis focuses on the three sources of energy that are relevant to the construction and operation of the proposed Project: electricity, natural gas, and transportation fuel.

Construction Energy

Electricity

Electricity usage during Project construction would largely stem from the usage of water for various tasks, such as ground watering for dust control. Electricity usage associated with water usage for construction dust control is calculated based on the total gallons of water estimated to be used during soil disturbing activities and the energy intensity. The total gallons of water used is calculated based on the amount of Project Site acreage expected to be disturbed during grading and site preparation and a daily watering rate per acre disturbed. The total acres disturbed are calculated using the methodology described in *Chapter 4.2 of Appendix C of the California Emissions Estimator Model (CalEEMod) User Guide*. The amount of acreage disturbed for Project construction was conservatively calculated to be 0.5-acres. The water application rate used is 3,020 gallons per acre per day, which comes from the *Air and Waste Management Association's Air Pollution Engineering Manual* (1992). The energy intensity value is based on the CalEEMod default supply, distribution, and treatment energy intensity per gallon of water for the South Coast Hydrologic Region.

On-site Diesel Construction Equipment

Similarly, Project construction would also consume energy in the form of diesel fuel associated with the on-site off-road construction equipment. This consumption was calculated based on CalEEMod GHG emissions outputs for construction equipment and conversion ratios from the Climate Registry. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod conservatively assumes all of the equipment operates on diesel fuel. CalEEMod calculated emissions based on Project-specific estimates of types of construction equipment that would be used, emission factors from CARB OFFROAD, average horsepower, load power, and hours of operation.

Off-site Diesel Construction Trips

Project construction would also consume energy in the form of diesel fuel associated with off-site on-road construction mobile trips. Construction fuel was calculated based on CalEEMod GHG emission outputs for haul and vendor trips and conversion ratios from the Climate Registry. CalEEMod calculated emissions based on VMT estimates and emission factors from the CARB EMission FACtor (EMFAC) model. VMT was calculated based on the number of haul and vendor trips multiplied by the trip lengths for each phase shown in CalEEMod.

Off-site Gasoline Construction Trips

Similarly, Project construction would also consume energy in the form of gasoline fuel associated with on-road construction mobile trips. Construction fuel was calculated based on CalEEMod GHG emission outputs for worker trips and conversion ratios from the Climate Registry. CalEEMod calculated emissions based on VMT estimates and emission factors from the CARB EMFAC model. VMT was calculated based on the number of worker trips multiplied by the trip lengths for each phase shown in CalEEMod.

Operational Energy

Building Electricity

The Project would consume electricity through the operation of the building, such as for lighting and heating, ventilation, and air conditioning systems. The Project's expected electricity use is calculated using CalEEMod defaults and Project-specific land use activity data.

Natural Gas

The Project would consume natural gas through the operation of the building, such as for heating. The Project's expected natural gas use is calculated using CalEEMod defaults and Project-specific land use activity data.

Water Electricity

The operation of the Project would also consume electricity through water usage. The electricity associated with indoor and outdoor Project operational water usage is quantified using an annual water usage estimate and an energy intensity factor. The annual water usage is based on CalEEMod defaults and Project-specific land use activity data. The indoor energy intensity value is based on the CalEEMod default supply, distribution, treatment, and wastewater energy intensity per gallon of water for the South Coast Hydrologic Region. The outdoor energy intensity value is based on the CalEEMod default supply, distribution, and treatment energy intensity per gallon of water for the South Coast Hydrologic Region.

Diesel Truck and Gasoline Passenger Vehicle Trips

Lastly, Project operation would also consume energy in the form of vehicle trips. The gasoline and diesel fuel associated with on-road vehicular trips is calculated based on the default fleet mix and total VMT from CalEEMod and average fuel efficiency from the United States Department of Transportation. The total VMT is based on the daily Project-specific trip generation and CalEEMod default daily trip lengths. According to the *Transportation Assessment*

(Transportation Analysis) prepared by Gibson Transportation Consulting (2025), Project is expected to generate 433 total daily vehicle trips.[17]

Impact Analysis

Threshold (a) Would the project result in wasteful, inefficient, or unnecessary consumption of energy resources?

Construction Energy

Project construction is anticipated to begin as early as the second quarter of 2027. Project construction would consist of demolition, site preparation, grading, infrastructure improvements, building construction, architectural coating applications, and paving, as well as off-site driveway improvements. Project construction would consume energy in three general forms: (1) energy consumption associated with water use; (2) the fuel energy consumed by construction vehicles and equipment; and (3) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Because Project construction is not expected to require natural gas, it is not included in the following discussion.

For construction-related vehicle consumption, it was conservatively assumed the demolition haul mileage would be the worst-case disposal site distance. Based on Applicant input, construction phases except building construction is conservatively anticipated to have a maximum of 20 daily worker trips. Based on the Transportation Analysis, the building construction phase is conservatively anticipated to have a maximum of 88 daily worker trips and 50 daily vendor trips and the grading phase is conservatively anticipated to have a maximum of 100 daily vendor and 100 daily hauling trips.[18] The maximum daily trips during each construction phase was conservatively modeled in CalEEMod to represent a worst-case scenario. Additionally, the construction schedule assumes construction will take place six days per week (Monday through Saturday) in accordance with the City's permitted construction hours. See Appendix A: Energy Data for more information regarding the construction assumptions used in this analysis.

Energy usage associated with Project construction is summarized in Table 4: Construction Energy Consumption**.**

[17] Gibson Transportation Consulting, Transportation Assessment for the 525 S. Virgil Avenue Self-Storage Project, Los Angeles, California, 2025.

[18] Gibson Transportation Consulting, Transportation Assessment for the 525 S. Virgil Avenue Self-Storage Project, Los Angeles, California, 2025.

Table 4: Construction Energy Consumption			
Source	**Project Consumption**	**Los Angeles County Annual Energy Consumption**	**Percentage of Countywide Consumption**
Electricity		**GWh**	
Water[1]	0.00040	64,896[5]	0.00000062%
Diesel		**Gallons**	
Construction Equipment[2]	43,091	518,097,421[6]	0.0083%
Haul and Vendor Trips[3]	50,459		0.0097%
Total	**93,550**		0.018%
Gasoline		**Gallons**	
Mobile Worker Trips[4]	22,969	3,285,951,375[6]	0.00070%

GWh = gigawatt-hours

1. Calculated based on the total gallons of water estimated to be used during soil disturbing activities and the CalEEMod default energy intensity per gallon of water for the South Coast Hydrologic Region.
2. Calculated based on CalEEMod GHG emissions outputs for construction equipment and conversion ratios from the Climate Registry.
3. Calculated based on CalEEMod GHG emissions outputs for haul and vendor trips and conversion ratios from the Climate Registry.
4. Calculated based on CalEEMod GHG emissions outputs for worker trips and conversion ratios from the Climate Registry.
5. Los Angeles County electricity usage in 2024 (most recent data available).
6. The anticipated Los Angeles County fuel usage in 2027 (the first construction year).

Source: California Energy Commission, Electricity Consumption, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0. Accessed September 14, 2025; California Air Resources Board, EMFAC2021, Emissions Inventory, 2022, https://arb.ca.gov/emfac/emissions-inventory/cd60f29daaedd924a75a9316202d7f56a9b573e5. Accessed September 14, 2025.
Refer to Appendix A for the energy calculations.

As shown in Table 4 the Project's construction-related electrical demand would be approximately 0.00040 GWh and would represent less than 0.01 percent of the electricity usage within the County. Therefore, it is anticipated that the existing and planned electricity capacity and electricity supplies would be sufficient to serve the Project's temporary construction electricity demand. As such, Project construction would not result in wasteful, inefficient, or unnecessary consumption of electrical resources.

Table 4 **also** shows Project construction is anticipated to consume approximately 93,550 gallons of diesel and approximately 22,969 gallons of gasoline, which would represent approximately 0.018 percent of diesel use and 0.0007 percent of gasoline use within the County. Based on the Project's relatively low fuel use during construction compared to the County's annual use, the Project would not substantially affect existing energy fuel supplies or resources. Project construction-related fuel use would be temporary, would fluctuate according to the construction phase, and would cease with construction. Furthermore, Project compliance with the latest engine efficiency emissions standards and CARB's construction equipment idling requirements would minimize unnecessary fuel consumption. These regulations require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel

consumption. Furthermore, increasing transportation costs and fuel prices incentivize contractors and owners to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. As such, it is expected that existing and planned transportation fuel supplies would be sufficient to serve the Project's temporary construction demand, and Project construction would have a nominal effect on the local and regional energy supplies.

Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes, and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

Furthermore, Project construction would not result in inefficient, wasteful, or unnecessary energy consumption. Impacts would be less than significant, and no mitigation measures are required.

Operational Energy

Energy consumption associated with Project operations would occur from building electricity use, water use, natural gas use, and transportation fuel use and is summarized in Table 5: Annual Operational Energy Consumption.

Table 5: Annual Operational Energy Consumption

Source	Project Consumption	Los Angeles County Annual Energy Consumption	Percentage Increase Countywide Consumption
Electricity	**GWh**		
Building and Parking Lot[1]	1.23	64,896[5]	0.0019%
Water[2]	0.40		0.00061%
Total	1.62		0.0025%
Natural Gas[3]	**Million Therms**		
Building[3]	0.0040	2,830[5]	0.00014%
Diesel	**Gallons**		
Mobile Trips[4]	4,512	517,191,839[6]	0.0009%
Gasoline	**Gallons**		
Mobile Trips[4]	44,367	3,217,179,804[6]	0.0014%

Table 5: Annual Operational Energy Consumption			
Source	**Project Consumption**	**Los Angeles County Annual Energy Consumption**	**Percentage Increase Countywide Consumption**
GWh = gigawatt-hours 1. Calculated based on CalEEMod defaults and Project-specific land use activity data. 2. Calculated based on an annual water usage estimate and CalEEMod default energy intensity per gallon of water for the South Coast Hydrologic Region. 3. Calculated based on CalEEMod defaults and Project-specific land use activity data. 4. Calculated based on default fleet mix and total VMT from CalEEMod and average fuel efficiency from the United States Department of Transportation. 5. Los Angeles County electricity and natural gas usage in 2024 (most recent data available). 6. The anticipated Los Angeles County fuel usage in 2028 (the first operational year).			
Source: California Energy Commission, California Energy Consumption Dashboards, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards. Accessed September 14, 2025; California Air Resources Board, EMFAC2021, Emissions Inventory, 2022, https://arb.ca.gov/emfac/emissions-inventory/cd60f29daaedd924a75a9316202d7f56a9b573e5. Accessed September 14, 2025. Refer to Appendix A for the energy calculations.			

Table 5 shows the Project's annual operational electrical demand would total approximately 1.62 GWh, which would account for less than 0.01 percent of the County's annual use. Project implementation would result in a negligible energy demand increase compared to the existing County demand. Additionally, LADWP would review the Project's estimated electricity consumption to ensure that the estimated power requirement would be accounted for in the total load growth forecast for their service area and planned growth of the power system. As such, it is anticipated that the existing and planned electricity capacity and supply would be sufficient to serve the Project's electricity demand. It is also noted that Project design and operations would be subject to compliance with the latest CALGreen Code and Energy Code, as applicable.

Table 5 also shows the Project would consume 0.0040 million therms of natural gas, which would account for less than 0.01 percent of the County's annual use. According to the United States Energy Information Administration, the United States currently has over 86 years of natural gas reserves based on the 2021 supply and consumption rate.[19] As such, it is anticipated that the existing natural gas supply would be sufficient to serve the Project's natural gas demand. Further, the Project would be required to comply with energy conservation standards contained in CCR Title 24, the L.A. Green Building Code, and the CALGreen Code, as applicable. The L.A. Green Building Code, effective January 1, 2020, requires the use of numerous energy conservation measures beyond those required by CCR Title 24. The Project's energy

[19] United States Energy Information Administration, Frequently Asked Questions, How Much Natural Gas Does the United States Have, and How Long Will It Last?, 2024, https://www.eia.gov/tools/faqs/faq.php?id=58&t=8. Accessed October 22, 2025.

consumption does not take into account reductions that would be provided by adherence to the L.A. Green Building Code.

Specifically, the Project would include energy efficient lighting fixtures, Energy Star®-rated appliances, low-flow water features, and energy efficient mechanical heating and ventilation systems. In addition, the Project would provide approximately four EV charging stations.

As shown in Table 5, the Project is anticipated to consume approximately 4,512 gallons of diesel and 44,367 gallons of gasoline. The Project's operational fuel use would represent approximately less than 0.01 percent of the diesel and gasoline use in the County. Diesel and gasoline are supplied by widely distributed service stations within and around the City. Based on current proven reserves, the global supply of crude oil, other liquid hydrocarbons, and biofuels is expected to be adequate to meet the world's demand for liquid fuels through 2050.[20] Therefore, the proposed Project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities.

Moreover, the Project would also include conservation measures and design features that would decrease its VMT and therefore its consumption of petroleum-based fuels (gasoline and diesel). Specifically, consistent with the 2020–2045 RTP/SCS alignment of transportation, land use, and housing strategies, the Project would encourage alternative modes of transit by providing bicycle parking spaces and convenient access to public transit, which would facilitate a reduction in VMT. The Project would also provide EV spaces and bicycle parking pursuant to the LAMC. Because of the Project Site's location near transit service, employees could take transit to their destinations or walk to commercial uses and other services nearby. The expected reduction in Project-related vehicle trips would decrease the Project's consumption of petroleum-based fuels

While Table 5 conservatively does not account for the removal of the existing uses on site, it is expected that the Project's energy consumption would be offset by such removal, especially when considering that the Project will incorporate modern energy-saving technology, like low-flow faucets and green-roof trays, unlike the existing improvements that were built in 1965.

None of the Project's anticipated energy uses would exceed one percent of the corresponding County use. Therefore, Project operations would not substantially affect existing energy or fuel supplies or resources. Furthermore, the Project would comply with the applicable provisions of the Energy Code and CALGreen Code (Part 11) and any required standard at the time of building

[20] United States Energy Information Administration, California State Energy Consumption Profile, 2025, https://www.eia.gov/state/print.php?sid=CA. Accessed October 22, 2025.

permit issuance by the City. As such, with regulatory compliance and incorporation of energy conservation features that would reduce the Project's electricity demand from that estimated herein, Project operation would not result in the wasteful, inefficient or unnecessary consumption of energy. Impacts would be less than significant, and no mitigation measures are required.

Threshold (b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As discussed below, the Project will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Specifically, the Project is consistent with the CALGreen Code, the Energy Code, the LAGBC, the Green New Deal, and the 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

In accordance with the Project's compliance with the CALGreen Code, the Project would (a) divert 50 percent of its construction and demolition waste from landfills; (b) schedule mandatory inspections of its energy systems to ensure optimal working efficiency; (c) use only low pollutant-emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards; and (d) include features ensuring a 20 percent reduction in indoor water use. Compliance with all of these mandatory measures would decrease the Project's consumption of electricity and petroleum-based fuels.

The Project would additionally comply with the latest Energy Code, CALGreen Code, LAGBC, Green New Deal, and the 2024–2050 RTP/SCS, as applicable, which contain mandatory conservation policies. Such requirements include specific lighting requirements to conserve energy, window glazing to reflect heat, enhanced insulation to reduce heating and ventilation energy usage, and enhanced air filtration. The Project would incorporate these measures as required by code. The most recent Energy Code and CALGreen Code ensure that builders use the most energy efficient and energy conserving technologies and construction practices. Buildings (such as the Project) adhering to the latest Energy and CALGreen Code would be more energy efficient than buildings designed with prior codes, like the existing on-site improvements that were built in 1965. As such, the proposed Project would be more energy efficient than the existing on-site uses.

As discussed above, the Project's construction- and operation-related energy consumption would represent a fraction of the County's existing and projected energy consumption. Furthermore, the Project's electricity provider, LADWP, would be subject to the RPS program, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase total procurement from eligible renewable energy resources to 33

percent by 2020 and 50 percent by 2030. As noted above, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. Renewable energy is generally defined as energy that comes from resources that are naturally replenished within a human timescale[21], such as sunlight, wind, tides, waves, and geothermal heat[22].The LADWP satisfies its renewable energy portfolio standards and consists of approximately 39.5 percent of renewable energy sources.[23]

The Project will comply with all applicable State and local energy efficiency standards, which would ensure that the Project would meet all applicable energy conservation policies and regulations. 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, and no mitigation is required.

Cumulative Impacts

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by the LADWP are ongoing. As described in LADWP's Power Strategic Long-Term Resource Plan (2022), the LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards.[24] The Power Strategic Long-Term Resource Plan considers future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within LADWP's service area would also be anticipated to incorporate and/or fund site-specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Related project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. Moreover, like the project, each related project would be required to pay development impact fees, as applicable, which the City could use for future infrastructure upgrades, as needed. As such, the Project's contribution to cumulative impacts with respect to electricity infrastructure would not be cumulatively

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21 American Geosciences Institute, Renewable Energy, https://profession.americangeosciences.org/society/intersections/renewable-energy/. Accessed December 9, 2025.

22 United States Department of Energy, Renewable Energy, https://www.energy.gov/topics/renewable-energy. Accessed December 9, 2025.

23 California Energy Commission, 2023 Power Content Label, Los Angeles Department of Water and Power, https://www.energy.ca.gov/filebrowser/download/7275. Accessed October 22, 2025.

24 Los Angeles Department of Water and Power, Power Strategic Long-Term Resource Plan, 2022, https://www.ladwp.com/sites/default/files/2023-08/2022%20LADWP%20Power%20Strategic%20Long-Term%20Resource%20Plan_0.pdf. Accessed October 22, 2025.

considerable. Therefore, impacts would be less than significant, and no mitigation measures are required.

Conclusion

As shown in Table 4 and Table 5, the Project's increase in electricity, natural gas, and automotive fuel consumption is minimal. For the reasons described above, the Project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand. Moreover, the Project is consistent with all applicable state and local plans for renewable energy/energy efficiency. Thus, the Project would not directly cause or contribute cumulatively to wasteful, inefficient, or unnecessary consumption of energy during Project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

Appendix A

Energy Data

Construction Water Energy

Daily Soil Disturbance[1]	0.5	acres/day
Days of Soil Disturbance[2]	50	days
Water Concentration[3]	3,020	gallons/acre
Water Usage	0.08	million gallons
Water Energy Intensity[4]	5,306	kWh/million gallons
Water Energy	401	kWh
	0.00040	GWh
Annual Los Angeles County Electricity[5]	64,896	GWh/year
% Consumption	0.00000062%	

NOTES:

1. Total daily acres disturbed from off-road equipment per CalEEMod (3.0 Construction Emissions Detail) and maximum SCAQMD LST values for soil-disturbing equipment.
2. Number of days of construction with soil disturbing equipment per CalEEMod (5.1 Construction Schedule).
3. Water application rate per Air and Waste Management Association's Air Pollution Engineering Manual (1992).
4. Water energy intensity factor per CalEEMod User Guide, Appendix G, Tab G-32 for the supply, distribution, and treatment of water within the South Coast Hydrologic Region.
5. Los Angeles County electricity usage in 2024 (most recent data available).

Source: California Energy Commission, Electricity Consumption, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0.

Construction Fuel

On-site Diesel[1] (off-road construction equipment)	**$MTCO_2e$**	**Gallons of Fuel[2]**
Demolition	17	1,717
Site Preparation	5	538
Grading	24	2,392
Infrastucture Improvements/ Detention System	8	774
Building Construction	366	36,023
Paving	7	689
Architectural Coating	10	958
Total	**437**	**43,091**

Off-site Diesel[1] (on-road construction trips)	**$MTCO_2e$**	**Gallons of Fuel[2]**
Demolition	94	9,244
Site Preparation	0	0
Grading	176	17,316
Infrastucture Improvements/ Detention System	0	0
Building Construction	243	23,899
Paving	0	0
Architectural Coating	0	0
Total	**512**	**50,459**

Off-site Gasoline[3] (worker)	**$MTCO_2e$**	**Gallons of Fuel[2]**
Demolition	6	707
Site Preparation	1	160
Grading	5	590
Infrastucture Improvements/ Detention System	3	360
Building Construction	174	19,751
Paving	3	354
Architectural Coating	9	1,048
Total	**202**	**22,969**

Fuel	**$MTCO_2e$**	**Gallons of Fuel[2]**	**2027 Los Angeles County Fuel Use (Gallons)[4]**	**% Consumption**
On-site Diesel (off-road construction equipment)	437	43,091	518,097,421	0.0083%
Off-site Diesel (on-road construction trips)	512	50,459	518,097,421	0.0097%
Total Diesel (on-site + off-site)	**950**	**93,550**	**518,097,421**	**0.018%**
Gasoline	**202**	**22,969**	**3,285,951,375**	**0.00070%**

Construction Phase[5]	**Demolition**			**Site Preparation**			**Grading/Shoring**		
	On-Site Diesel (Off-Road)	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**
2027	17.43	93.82	6.23	5.47	-	1.41	24.28	175.76	5.20
Total	**17**	**94**	**6**	**5**	**0**	**1**	**24**	**176**	**5**

Construction Phase[5]	**Infrastructure Improvements/Detention System**			**Building Construction**			**Paving**		
	On-Site Diesel (Off-Road)	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**	**On-Site Diesel (Off-Road)**	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**
2027	7.86	-	3.17	44.90	30.39	21.71	-	-	-
2028	-	-	-	320.74	212.19	152.30	7.0	-	3.1
Total	**8**	**0**	**3**	**366**	**243**	**174**	**7**	**0**	**3**

Construction Phase[5]	**Architectural Coating**		
	On-Site Diesel (Off-Road)	**Off-Site Diesel (Hauling/Vendor)**	**Off-Site Gasoline (Worker)**
2027	-	-	-
2028	9.72		9.23
Total	**10**	**0**	**9**

NOTES:

1. Fuel used for off-road, hauling, and vendor trips assumed to be diesel.
2. CO_2e emissions per Conversion Ratios: Climate Registry, General Reporting Protocol, Chapter 13, Page 94, 2016.
3. Fuel used for worker trips assumed to be gasoline.
4. The anticipated Los Angeles County fuel usage in 2027(the first construction year).
Source: California Air Resources Board, EMFAC2021, Emissions Inventory, 2022, https://arb.ca.gov/emfac/emissions-inventory/cd60f29daaedd924a75a9316202d7f56a9b573e5.
5. $MTCO_2e$ rates per CalEEMod (3.0 Construction Emissions Details).

Elecricity and Natural Gas

	Energy Usage	Annual Los Angeles County Energy[1]	% Consumption
Land Use Electricity (kWh/yr)	1,225,619	-	-
(GWh/yr)	1.226	64,896	0.0019%
Water Energy (GWh/yr)	0.398	64,896	0.00061%
Total Electricity (GWh/yr)	**1.624**	**64,896**	**0.0025%**
Natural Gas (kBTU/yr)	4,011,248	-	-
Natural Gas (MMtherms/yr)	**0.00401125**	**2,830**	**0.00014%**

Land Use	Electricity[2] (kWh/yr)	Natural Gas[2] (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1175351.636	3979823.995
General Office Building	24912.56495	31423.66709
Parking Lot	25355.03139	0
Total Energy	**1,225,619.23**	**4,011,247.66**

NOTES:
1. Los Angeles County energy usage in 2024 (most recent data available).
Source: California Energy Commission, California Energy Consumption Dashboards, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards.
2. Electricity and natural gas use per CalEEMod (5.11 Operational Energy Consumption).

Operational Water Electricity

Indoor Water Usage	58.39	million gallons
Indoor Energy Intensity Factor[1]	6,807	kWh/MG/year
Outdoor Water Usage	0.13	million gallons
Outdoor Energy Intensity Factor[2]	5,306	kWh/MG/year
Water Energy	398,190	kWh/year
	0.40	GWh/year
Los Angeles County Annual Electricity[3]	64,896	GWh/year
% Consumption	0.00061%	

Land Use	**Water Usage (gal/year)[4]**	
	Indoor	**Outdoor**
Unrefrigerated Warehouse-No Rail	58,116,339	131,837
General Office Building	277,993	0
Total	58,394,333	131,837

NOTES:
1. Indoor water energy intensity factor per CalEEMod User Guide, Appendix G, Tab G-32 and includes supply, treatment, distribution, and wastewater within the South Coast Hydrologic Region.
2. Outdoor water energy intensity factor per CalEEMod User Guide, Appendix G, Tab G-32 and includes supply, treatment, and distribution within the South Coast Hydrologic Region.
3. Los Angeles County electricity usage in 2024 (most recent data available).
Source: California Energy Commission, Electricity Consumption, https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/california-energy-consumption-dashboards-0.
4. Operational water use values per CalEEMod (5.12 Operational Water and Wastewater Consumption).

Operational Fuel

Vehicle Type	Percent	Annual VMT[1]	MPG[2]	Annual Fuel Use (Gallons)	Fuel Type	2028 Los Angeles County Fuel Use (Gallons)[3]	% Consumption
Passenger Cars	94.04%	958,337	21.6	44,367	Gas	3,217,179,804	0.0014%
Light/Medium Trucks	5.05%	51,452	17.2	2,991	Diesel	517,191,839	0.0006%
Heavy Trucks/Other	0.91%	9,278	6.1	1,521	Diesel	517,191,839	0.0003%
			Total Truck (Diesel)	4,512	Diesel	517,191,839	0.0009%

Land Use[5]	LDA	LDT1	LDT2	MCY	MDV	LHD1	LHD2	MHD	OBUS	UBUS	SBUS	MH	HHD	VMT/yr[4]
Unrefrigerated Warehouse-No Rail	48.7471342	4.1651577	24.4081959	2.2301052	14.4900292	2.7416918	0.7118823	1.1103786	0.0835828	0.0616520	0.0650948	0.2746276	0.9104671	1019067.004

NOTES:
1. Annual VMT is based on the fleet mix and total annual VMT
2. Average fuel economy derived from Department of Transportation.
3. The anticipated Los Angeles County fuel usage in 2028 (the first operational year).
Source: California Air Resources Board, EMFAC2021, Emissions Inventory, 2022, https://arb.ca.gov/emfac/emissions-inventory/cd60f29daaedd924a75a9316202d7f56a9b573e5.
4. Total annual operational VMT based on annual VMT from CalEEMod (5.9 Operational Mobile Sources).