



Appendix 4.6-1

Energy Modeling Data

Construction Fuel Consumption

On-Site Diesel ¹ (off-road construction Equipment)	MTCO ₂ e	Gallons of Fuel ⁴	County Fuel (2027)	Percent
Demolition	31	3,064		
Site Preparation/Grading	180	17,744		
Building Construction	145	14,281		
Paving	49	4,844		
Architectural Coating	3	269		
Total	408	40,203	535,939,687	0.0075%

Off-Site Diesel ¹ (on-road construction trips)				
Demolition	1	67		
Site Preparation/Grading	14	1,344		
Building Construction	73	7,162		
Paving	0	0		
Architectural Coating	0	0		
Total	87	8,573	535,939,687	0.0016%

Off-Site Gasoline ²				
Demolition	2	204		
Site Preparation/Grading	10	1,174		
Building Construction	79	8,930		
Paving	9	1,022		
Architectural Coating	5	593		
Total	105	11,923	3,369,809,065	0.0004%

Total Diesel Fuel		48,776	535,939,687	0.0091%
Total Gasoline Fuel		11,923	3,369,809,065	0.0004%
Total Construction Fuel	600	60,699		

Construction Phase ³	Demolition			Site Preparation			Grading/Infrastructure Improvements		
	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)
2026	31	1	2	72	0	3	108	14	7
Total	31	1	2	72	0	3	108	14	7

Construction Phase ³	Building Construction			Paving			Architectural Coating		
	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)
2026	140	70	76	0	0	0	0	0	0
2027	5	3	3	49	0	9	3	0	5
Total	145	73	79	49	0	9	3	0	5

Notes:

¹ Fuel used for off-road, hauling, and vendor trips assumed to be diesel.

² Fuel used for worker trips assumed to be gasoline.

³ MTCO₂e rates from CalEEMod (3.0 Construction Emissions Details).

⁴ For CO₂e emissions, see Chapter 13 (page 94); Conversion Ratios: Climate Registry, General Reporting Protocol, 2016.

Construction Water Energy

Daily Soil Disturbance ¹	2.5	acres
Days of Soil Disturbance ²	110	days
Water Concentration ³	3,020	gallons/acre
Water Energy Intensity ⁴	4,238	kWh/MG
Total Construction Water	0.83	million gallons
Construction Water Energy	3,520	kWh
	0.0035	GWh
Los Angeles County Annual Electricity	68,485	GWh
Percentage Increase	0.00001%	

Notes:

¹ Total daily acres disturbed from offroad 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.

⁴ Water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32.

MITIGATED							
Vehicle Type	Percent	Annual VMT ¹	MPG ²	Annual Fuel (Gallons)	Fuel Type	LA County Gallons ³	RS Percent
Passenger Cars	0.94	1,127,495	21.6	52,199	Gas	3,369,809,065	0.0015%
Light/Medium Trucks	0.05	59,651	17.2	3,468	Diesel	535,939,687	0.0006%
Heavy Trucks/Other	0.01	10,715	6.1	1,757	Diesel	535,939,687	0.0003%
Trucks Total		70,366		5,225		535,939,687	0.0010%
Total		1,197,861					

Land Use ⁵	LDA	LDT1	LDT2	MCY	MDV	LHD1	LHD2	MHD	OBUS	UBUS	SBUS	MH	HHD
Unrefrigerated Warehouse - No Rail	0.4933	0.0423	0.2402	0.0220	0.1434	0.0270	0.0069	0.0110	0.0008	0.0006	0.0006	0.0028	0.0089

Notes:

¹ Total annual operational VMT based on annual VMT from CalEEMod (5.9 Operational Mobile Sources).

² Average fuel economy derived from Department of Transportation.

³ Total annual county fuel per EMFAC 2021 model of projected operational fuel usage.

Operational Water Energy

UNMITIGATED		
Unmitigated Indoor	17.5	million gallons
Indoor Energy Intensity Factor ¹	6,807	kWh/MG
Unmitigated Outdoor	0	million gallons
Outdoor Energy Intensity Factor ²	4,238	kWh/MG
Operational Water Energy	120,458	kWh
Operational Water Energy	0.1205	GWh
Los Angeles County Annual Electricity	68,485.00	GWh
Percentage Increase	0.0002%	
MITIGATED		
Mitigated Indoor	0.0	million gallons
Indoor Energy Intensity Factor ¹	6,807	kWh/MG
Mitigated Outdoor	0	million gallons
Outdoor Energy Intensity Factor ²	4,238	kWh/MG
Operational Water Energy	0	kWh
Operational Water Energy	0.0000	GWh
Los Angeles County Annual Electricity	68,485.00	GWh
Percentage Increase	0.0000%	

Land Use ³	Unmitigated (gal/year)		Mitigated (gal/year)	
	Indoor	Outdoor	Indoor	Outdoor
Unrefrigerated Warehouse - No Rail	17,026,244	200,341	0	0
General Office Building	124,414	0	0	0
Apartments Low Rise	335464	137,129.26	0	0
Parking Lot	0		0	0
Total Operational Water (MG/year)	17	0	0	0

Notes:

¹ Indoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, distribution, and wastewater.

² Outdoor water energy intensity factor for subarea per CalEEMod User Guide, Appendix G, Tab G-32. Factor includes supply, treatment, and distribution.

³ Operational water use values per CalEEMod (5.12 Operational Water and Wastewater Consumption).

Elecricity/Natural Gas Energy

UNMITIGATED			
	Unmitigated Project Annual Energy	Los Angeles County Annual Energy ³	Percentage Increase
Electricity (kWh/yr)	1,122,956	68,484,956,280	0.0016%
Electricity (GWh/yr)	1.1230	68,485	0.0016%
MITIGATED			
	Mitigated Project Annual Energy	Los Angeles County Annual Energy ³	Percentage Increase
Electricity (kWh/yr)	1,167,875	68,484,956,280	0.0017%
Electricity (GWh/yr)	1.1679	68,485	0.0017%

Land Use	Electricity ¹ (kWh/yr)	
	Unmitigated	Mitigated ⁴
Unrefrigerated Warehouse	1,020,096	1,060,900
General Office Building	10,978	11,418