

Table 1. Summary of Energy Use During Construction	
Fuel Type	Quantity
Diesel	
Off-Road Construction Equipment	23,440 Gallons
On-Road Motor Vehicles	19,922 Gallons
Total	43,361 Gallons
Gasoline	
Off-Road Construction Equipment	0 Gallons
On-Road Motor Vehicles	5,320 Gallons
Total	5,320 Gallons
Electricity	
Total	176.3 kWh

Table 2. Summary of Annual Energy Use During Operation		
Source	Units	Buildout
Electricity		
Fast Food	kWh/yr	667,381
Parking	kWh/yr	30,100
Water Conveyance	kWh/yr	60,263
<i>Total Electricity</i>	<i>kWh/yr</i>	<i>757,744</i>
Natural Gas		
Fast Food	kBTU/yr	3,942,120
<i>Total Natural Gas</i>	<i>kBTU/yr</i>	<i>3,942,120</i>
Transportation/On-Site Sources		
Diesel	gallons	74,769
Gasoline	gallons	202,534
Total	gallons	277,302

Table 3. Water by Land Use				
Land Use	Units	Project		
		Indoor/Outdoor Use	Indoor Use	Outdoor Use
Buildout	Mgal	4.3891 / 0.280155	4.3891	0.280155

Water and Wastewater Electricity Intensity (kWh/gallon)

Supply Water	0.009727
Treat Water	0.000111
Distribute Water	0.001272
Wastewater Treatment	0.001911

Source: CalEEMod User's Guide, Appendix D, Table 9.2

Indoor Water Factor	0.013021 kWh/gallon (supply, treat, distribute, wastewater treatment)
Outdoor Water Factor	0.01111 kWh/gallon (supply, treat, and distribute)

Notes:

Electricity and Natural Gas for the Proposed Project is total operational usage. Electricity, natural gas, and mobile usage was calculated from CalEEMod. Indoor water factor used for entire Project Site for conservative analysis.

Table 4. Off-Road Equipment Fuel Usage During Construction

Phase Name	Off-road Equipment Type	Amount	Hours per Day	Horsepower	Load Factor	Number of Days	Diesel Fuel Usage (Gallons per Project)
Grading	Graders	1	8	187	0.41	6	184
Grading	Rubber Tired Dozers	1	8	247	0.4	6	237
Grading	Tractors/Loaders/Backhoes	2	7	97	0.37	6	151
Building Construction	Cranes	1	8	231	0.29	220	5,895
Building Construction	Forklifts	2	7	89	0.2	220	2,741
Building Construction	Generator Sets	1	8	84	0.74	220	5,470
Building Construction	Tractors/Loaders/Backhoes	1	6	97	0.37	220	2,369
Building Construction	Welders	3	8	46	0.45	220	5,465
Paving	Cement and Mortar Mixers	1	8	9	0.56	10	20
Paving	Pavers	1	8	130	0.42	10	218
Paving	Paving Equipment	1	8	132	0.36	10	190
Paving	Rollers	2	8	80	0.38	10	243
Paving	Tractors/Loaders/Backhoes	1	8	97	0.37	10	144
Architectural Coating	Air Compressors	1	6	78	0.48	10	112
Project Total							23,440

Notes:

Equipment assumptions from CalEEMod.

Fuel usage estimate of 0.05 gallons per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3 E.

Table 5. On-Road Vehicle Fuel Usage During Construction

Sub Area 1	Days	Daily Trips		Total			Trip Length (Miles)			Total Length (Miles)			Fuel Consumption (Gallons)	
		Worker	Vendor	Worker Trips	Vendor Trips	Haul Trips	Worker	Vendor	Hauling	Worker	Vendor	Hauling	Gasoline	Diesel
Grading	6	10	0	60	0	0	14.7	6.9	20	882	0	0	33	25
Building Construction	220	42	64	9,240	14,080	16	14.7	6.9	20	135,828	97,152	320	5,159	19,800
Architectural Coating	10	8	0	80	0	0	14.7	6.9	20	1,176	0	0	45	34
Paving	10	15	0	150	0	0	14.7	6.9	20	2,205	0	0	84	63
Total	246	75	64	9,530	14,080	16	n/a	n/a	n/a	140,091	97,152	320	5,320	19,922

Fuel Efficiency	Gas	DSL
Workers	26.33	34.88
Vendor/Haul Trucks	0	6.13

Notes:
 Fuel efficiency calculated in **Table 7: EMFAC2021 Results - Construction.**

Table 6. Water Usage for Control of Fugitive Dust During Construction

Phase Name	Total Acres	Gallons for Project	Electricity (kWh)
Project	6.0	18,120	176.3

Notes:

Total acres graded based on CalEEMod output sheets.

Water Usage

3,020 gallons per acre per day

Source: Air & Waste Management Association, Air Pollution Engineering Manual, 1992 Edition

Supply Water Electricity Intensity

0.009727 kWh/gallons (CalEEMod default)

Table 7. EMFAC2021 Results - Construction								
Vehicle Class	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)	Fuel	VMT (miles per day)	Fuel (1,000 gal per day)	Fuel Efficiency (miles per gallon)
LDA	GAS	33,073,440	1,140.88	28.99	DSL	77,366	1.85	41.87
LDT1	GAS	2,503,906	104.67	23.92	DSL	424	0.02	23.82
LDT2	GAS	13,160,213	561.87	23.42	DSL	39,572	1.24	31.97
Average (LDA, LDT1, LDT2)				26.33				34.88
T7 Tractor Construction	DSL	405,659	66.20	6.13				

Construction Worker Fleet Mix

LDA	50%
LDT1	25%
LDT2	25%

Vendor and Delivery/Haul Truck Fleet Mix

HHDT	100%
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Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: San Bernardino

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
San Bernardino	2023	LDA	Aggregate	Aggregate	Gasoline	773664.0019	33073440.07	3594279.083	1140.883797
San Bernardino	2023	LDA	Aggregate	Aggregate	Diesel	2221.377014	77366.16142	9541.620731	1.847726849
San Bernardino	2023	LDA	Aggregate	Aggregate	Electricity	27031.11036	1265339.001	136160.7131	0
San Bernardino	2023	LDT1	Aggregate	Aggregate	Gasoline	73981.30063	2503906.499	318282.9673	104.6712544
San Bernardino	2023	LDT1	Aggregate	Aggregate	Diesel	29.71832479	424.1576698	86.28629252	0.01780751
San Bernardino	2023	LDT1	Aggregate	Aggregate	Electricity	77.71161154	3326.268317	378.6150268	0
San Bernardino	2023	LDT2	Aggregate	Aggregate	Gasoline	323145.0561	13160212.62	1508164.1	561.8657302
San Bernardino	2023	LDT2	Aggregate	Aggregate	Diesel	896.7674867	39572.03037	4322.633894	1.237774667
San Bernardino	2023	T7 Tractor Class	Aggregate	Aggregate	Diesel	4976.679984	405658.6311	72311.16017	66.19692331
									1876.721014
									1876721.014
		Gas		1807.420782	1807420.782	659708585.3	35,378,625.00	685,003,170.11	
		Diesel		69.30023233	69300.23233	25294584.8	10,548,851.00		
							45,927,476.00		

Table 8. On road Vehicles - Operational				
Scenario	Annual VMT	Fuel Consumption (gal)		
		Gasoline	Diesel	Total
Project	5,712,495	202,534	74,769	277,302

Table 9. Fuel Consumption Summary		
Project		
Fuel	Fuel Efficiency (MPG)	%Fleet
Gasoline	25.4	90.0%
Diesel	7.6	10.0%

Notes:

Percent fleet and fuel efficiency based on

Table 10: EMFAC2021 Emissions

Inventory-Operations

Annual VMT obtained from the CalEEMod Output files.

Table 10. EMFAC2021 Emissions Inventory - Operations

Fuel	VMT (miles/day)	Fuel Consumption (1,000 gal/day)	Fuel Efficiency (miles per gallon)	Fuel Percentage		Existing VMT	Fuel Consumption	Fuel Efficiency	Fuel Percentage
GAS	60,825,054	2,396	25.4	90		0	0	#DIV/0!	#DIV/0!
DSL	6,859,924	898	7.6	10		0	0	#DIV/0!	#DIV/0!

Note: Fuel percentage based on VMT.

Fuel efficiency calculated using fuel consumption and VMT from EMFAC2021.

Buildout

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Los Angeles

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption.

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips	Fuel_Consumption
San Bernardino	2025	All Other Buses	Aggregate	Aggregate	Diesel	229.2663691	12009.68797	2040.4707	1.25553978
San Bernardino	2025	LDA	Aggregate	Aggregate	Diesel	1948.632535	66018.2217	8282.7365	1.55166875
San Bernardino	2025	LDT1	Aggregate	Aggregate	Diesel	23.9948137	327.746725	67.113633	0.01375278
San Bernardino	2025	LDT2	Aggregate	Aggregate	Diesel	1014.177039	44885.5334	4886.2048	1.34399814
San Bernardino	2025	LHD1	Aggregate	Aggregate	Diesel	22260.03392	835207.0437	280003.22	40.5951999
San Bernardino	2025	LHD2	Aggregate	Aggregate	Diesel	9589.889589	365990.3703	120628.75	21.2926898
San Bernardino	2025	MDV	Aggregate	Aggregate	Diesel	3599.10134	143983.9356	16571.675	6.03242322
San Bernardino	2025	MH	Aggregate	Aggregate	Diesel	2582.96196	22618.02796	258.2962	2.18761345
San Bernardino	2025	Motor Coach	Aggregate	Aggregate	Diesel	61.58652159	8233.656181	1415.2583	1.4638549
San Bernardino	2025	PTO	Aggregate	Aggregate	Diesel	0	47346.73289	0	9.4207087
San Bernardino	2025	SBUS	Aggregate	Aggregate	Diesel	993.6115615	22107.22281	14387.495	2.9387344
San Bernardino	2025	T6 CAIRP Class 4	Aggregate	Aggregate	Diesel	25.74244438	1725.447195	591.56137	0.18953633
San Bernardino	2025	T6 CAIRP Class 5	Aggregate	Aggregate	Diesel	34.057475	2370.93749	782.64078	0.26058578
San Bernardino	2025	T6 CAIRP Class 6	Aggregate	Aggregate	Diesel	115.5681422	6153.527192	2655.7559	0.66601268
San Bernardino	2025	T6 CAIRP Class 7	Aggregate	Aggregate	Diesel	190.6542161	39002.35893	4381.2339	3.92277661
San Bernardino	2025	T6 Instate Delivery	Aggregate	Aggregate	Diesel	707.0166141	23941.01677	10089.127	2.69146176
San Bernardino	2025	T6 Instate Delivery	Aggregate	Aggregate	Diesel	816.7867353	27972.65803	11655.547	3.1881776
San Bernardino	2025	T6 Instate Delivery	Aggregate	Aggregate	Diesel	3325.261264	113323.7374	47451.478	12.7616546
San Bernardino	2025	T6 Instate Delivery	Aggregate	Aggregate	Diesel	606.0934599	33126.7465	8648.9537	3.6239185
San Bernardino	2025	T6 Instate Other Cl	Aggregate	Aggregate	Diesel	1498.012687	62555.99708	17317.027	7.06756122
San Bernardino	2025	T6 Instate Other Cl	Aggregate	Aggregate	Diesel	3535.008245	153544.2521	40864.695	17.4106334
San Bernardino	2025	T6 Instate Other Cl	Aggregate	Aggregate	Diesel	3080.91431	131734.1102	35615.369	14.8211157
San Bernardino	2025	T6 Instate Other Cl	Aggregate	Aggregate	Diesel	1802.07051	85487.3607	20831.935	9.39828143
San Bernardino	2025	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	30.54824032	1558.619193	353.13766	0.17282843
San Bernardino	2025	T6 Instate Tractor C	Aggregate	Aggregate	Diesel	972.6087021	58049.71699	11243.357	6.06888256
San Bernardino	2025	T6 OOS Class 4	Aggregate	Aggregate	Diesel	14.94198121	994.4297168	343.36673	0.10791364
San Bernardino	2025	T6 OOS Class 5	Aggregate	Aggregate	Diesel	19.67045504	1364.178749	452.02706	0.14831488
San Bernardino	2025	T6 OOS Class 6	Aggregate	Aggregate	Diesel	67.24701381	3564.638101	1545.3364	0.37975745
San Bernardino	2025	T6 OOS Class 7	Aggregate	Aggregate	Diesel	101.6902872	25919.35159	2336.8428	2.58377029
San Bernardino	2025	T6 Public Class 4	Aggregate	Aggregate	Diesel	128.9173743	4399.872528	661.34613	0.51111658
San Bernardino	2025	T6 Public Class 5	Aggregate	Aggregate	Diesel	220.2082047	8091.095734	1129.6681	0.9437338
San Bernardino	2025	T6 Public Class 6	Aggregate	Aggregate	Diesel	178.7216757	6305.097815	916.8422	0.7315082
San Bernardino	2025	T6 Public Class 7	Aggregate	Aggregate	Diesel	378.3348979	17331.51656	1940.858	1.96835606
San Bernardino	2025	T6 Utility Class 5	Aggregate	Aggregate	Diesel	199.1426152	8065.517768	2549.0255	0.86907812
San Bernardino	2025	T6 Utility Class 6	Aggregate	Aggregate	Diesel	37.6515772	1518.845525	481.94019	0.16300845
San Bernardino	2025	T6 Utility Class 7	Aggregate	Aggregate	Diesel	42.51279132	2106.033036	544.16373	0.22487686

San Bernardino	2025 T7 CAIRP Class 8	Aggregate	Aggregate	Diesel	6291.890692	1297926.413	144587.65	207.621524
San Bernardino	2025 T7 NNOOS Class 8	Aggregate	Aggregate	Diesel	5671.722041	1555338.065	130336.17	241.968368
San Bernardino	2025 T7 NOOS Class 8	Aggregate	Aggregate	Diesel	2397.626352	564943.1449	55097.454	89.9468394
San Bernardino	2025 T7 POLA Class 8	Aggregate	Aggregate	Diesel	2675.463778	337668.5003	43770.587	56.640109
San Bernardino	2025 T7 Public Class 8	Aggregate	Aggregate	Diesel	818.9945036	33635.41037	4201.4418	5.74967285
San Bernardino	2025 T7 Single Concrete/	Aggregate	Aggregate	Diesel	443.7187082	30488.04486	4179.8302	5.01947789
San Bernardino	2025 T7 Single Dump Cla	Aggregate	Aggregate	Diesel	864.0082301	49118.8343	8138.9575	8.27555771
San Bernardino	2025 T7 Single Other Cla	Aggregate	Aggregate	Diesel	2633.848671	143251.9063	24810.854	23.7142078
San Bernardino	2025 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	454.4429298	29500.61207	2090.4375	10.7415271
San Bernardino	2025 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	5586.973126	421956.3074	81178.72	68.0995666
San Bernardino	2025 T7 Utility Class 8	Aggregate	Aggregate	Diesel	145.5915619	6464.216242	1863.572	1.04559552
San Bernardino	2025 UBUS	Aggregate	Aggregate	Diesel	7.060472311	697.8011686	28.241889	0.07489277
San Bernardino	2025 LDA	Aggregate	Aggregate	Gasoline	764579.6112	32810289.96	3545081.6	1088.4083
San Bernardino	2025 LDT1	Aggregate	Aggregate	Gasoline	70144.44426	2409958.695	302020.18	97.0981129
San Bernardino	2025 LDT2	Aggregate	Aggregate	Gasoline	337644.2202	13929503.44	1577536.2	564.18984
San Bernardino	2025 LHD1	Aggregate	Aggregate	Gasoline	29713.01675	1108490.991	442679.68	80.8854393
San Bernardino	2025 LHD2	Aggregate	Aggregate	Gasoline	4518.553278	161855.7997	67319.711	13.3415026
San Bernardino	2025 MCY	Aggregate	Aggregate	Gasoline	38855.32162	226907.5585	77710.643	5.44912767
San Bernardino	2025 MDV	Aggregate	Aggregate	Gasoline	251167.1745	9921872.959	1145571.7	498.692277
San Bernardino	2025 MH	Aggregate	Aggregate	Gasoline	6121.22242	53536.5282	612.36709	11.0826071
San Bernardino	2025 OBUS	Aggregate	Aggregate	Gasoline	619.7772438	30637.70864	12400.503	5.98324118
San Bernardino	2025 SBUS	Aggregate	Aggregate	Gasoline	398.9536056	20420.71668	1595.8144	2.25047579
San Bernardino	2025 T6TS	Aggregate	Aggregate	Gasoline	2309.446886	140687.5982	46207.413	26.8652499
San Bernardino	2025 T7IS	Aggregate	Aggregate	Gasoline	6.102009755	351.9069674	122.08901	0.0888095
San Bernardino	2025 UBUS	Aggregate	Aggregate	Gasoline	110.1157443	10540.07679	440.46298	1.7997065

	VMT Sum	Fuel Sum	Fuel Sum/Year
Diesel	6859924.498	897.8683833	327,721,960
Gas	60825053.94	2396.134689	874,589,162
			1,202,311,122