

Fuel and Energy Calculations

3600 Wilshire

Summary of Energy Use during Construction

Electricity

Water Consumption: 4,935 kWh

Gasoline 1,102,785 gallons

Diesel 177,285 gallons

Construction Transportation Gasoline Fuel

On-road (worker) (total phases)

Phase	Trips	Days	Length (miles)	Total (miles)	MPG	Gallons
Demolition	35	33				
Grading	25	42				
Construction (garage)	740	77				
Arch Coating (garage)	148	108				
Construction (building)	740	391				
Arch Coating (building)	148	109				
Total	1,836	760	14.7	20,511,792	18.6	1,102,785

Transportation Diesel Fuel

On-road (vender) (total phases)

Phase	Trips	Days	Length (mi)	Total (mil)	MPG	Gallons
Construction (garage)	157	77				
Construction (building)	157	391				
Total	314	468	6.9	1,013,969	7.4	137,023

On-road (haul)

Phase	Trips	Length (mi)	Total (mil)	MPG	Gallons
Demolition	1,384	25	34,600		
Grading	12,540	21	263,340		
Total	-	-	297,940	7.4	40,262

Water Usage for fugitive dust control during construction

Water application rate = 3,020 gallons/acre/day

Each gallon of delivered potable water in Southern California is associated with 0.009727 kWh of electricity).

Grading 42 days (total) x 4.0 acres (total Site) x 3,020 gallons = 507,360 gallons x 0.009727 kWh/gallon = 4,935 kWh

Operation Transportation Fuel

Gasoline and Diesel Use

Proposed Annual VMT: 11,215,089 miles			Fuel	
Fleet Mix	91% Auto	10,205,730 miles	18.6 mpg gas	548,695 gallons
	9% Other	1,009,358 miles	7.4 mpg diesel	136,400 gallons

Summary of Energy Use during Operation

Electricity (kWh/year)

Total: 5,787,175 kWh/year

Natural Gas (kBtu/year)

Total: 7,158,489 kBtu/year

Transportation

Gasoline: 548,695 gallons

Diesel: 136,400 gallons

Total: 685,095 gallons

Under peak conditions, the Project would consume approximately 5.7 gwh/year

5.8 gwh/year (energy per year) / 8,760 hours (number of hours in 1 year) = 0.00066 gw (power)

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2018

Season: Annual

Vehicle Classification: EMFAC2011 Categories

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

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Fuel Consumption
LOS ANGELES	2018	LDA	Aggregated	Aggregated	GAS	5708.441957
LOS ANGELES	2018	LDT1	Aggregated	Aggregated	GAS	668.6470641
LOS ANGELES	2018	LDT2	Aggregated	Aggregated	GAS	2433.251289
LOS ANGELES	2018	LHD1	Aggregated	Aggregated	GAS	412.7701905
LOS ANGELES	2018	LHD2	Aggregated	Aggregated	GAS	72.20078754
LOS ANGELES	2018	MCY	Aggregated	Aggregated	GAS	31.65323819
LOS ANGELES	2018	MDV	Aggregated	Aggregated	GAS	1889.766569
LOS ANGELES	2018	MH	Aggregated	Aggregated	GAS	40.16578425
LOS ANGELES	2018	OBUS	Aggregated	Aggregated	GAS	39.47089124
LOS ANGELES	2018	SBUS	Aggregated	Aggregated	GAS	4.81684293
LOS ANGELES	2018	T6TS	Aggregated	Aggregated	GAS	167.7302176
LOS ANGELES	2018	T7IS	Aggregated	Aggregated	GAS	1.597209828
LOS ANGELES	2018	UBUS	Aggregated	Aggregated	GAS	8.117928287
					Total (day)	11478.62997
					Total (year)	4189699.939

assumption

x 1000	11,478,630
x 1000	4189699939

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

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

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Fuel Consumption
LOS ANGELES	2023	All Other Bus	Aggregated	Aggregated	DSL	14.3102964
LOS ANGELES	2023	LDA	Aggregated	Aggregated	DSL	30.2306847
LOS ANGELES	2023	LDT1	Aggregated	Aggregated	DSL	0.28261215
LOS ANGELES	2023	LDT2	Aggregated	Aggregated	DSL	11.4787561
LOS ANGELES	2023	LHD1	Aggregated	Aggregated	DSL	134.836452
LOS ANGELES	2023	LHD2	Aggregated	Aggregated	DSL	58.2880015
LOS ANGELES	2023	MDV	Aggregated	Aggregated	DSL	30.499951
LOS ANGELES	2023	MH	Aggregated	Aggregated	DSL	6.25380248
LOS ANGELES	2023	Motor Coach	Aggregated	Aggregated	DSL	14.1077668
LOS ANGELES	2023	PTO	Aggregated	Aggregated	DSL	15.4668659
LOS ANGELES	2023	SBUS	Aggregated	Aggregated	DSL	16.0165185
LOS ANGELES	2023	T6 Ag	Aggregated	Aggregated	DSL	0.0110802
LOS ANGELES	2023	T6 CAIRP heavy	Aggregated	Aggregated	DSL	5.74152969
LOS ANGELES	2023	T6 CAIRP small	Aggregated	Aggregated	DSL	0.8645498
LOS ANGELES	2023	T6 instate commercial	Aggregated	Aggregated	DSL	16.1624662
LOS ANGELES	2023	T6 instate commercial	Aggregated	Aggregated	DSL	42.3939241
LOS ANGELES	2023	T6 instate heavy	Aggregated	Aggregated	DSL	130.47955
LOS ANGELES	2023	T6 instate small	Aggregated	Aggregated	DSL	186.745695
LOS ANGELES	2023	T6 OOS heavy	Aggregated	Aggregated	DSL	3.32562707
LOS ANGELES	2023	T6 OOS small	Aggregated	Aggregated	DSL	0.4922964
LOS ANGELES	2023	T6 Public	Aggregated	Aggregated	DSL	8.60435221
LOS ANGELES	2023	T6 utility	Aggregated	Aggregated	DSL	1.75155867
LOS ANGELES	2023	T7 Ag	Aggregated	Aggregated	DSL	0.01574504
LOS ANGELES	2023	T7 CAIRP	Aggregated	Aggregated	DSL	161.461909
LOS ANGELES	2023	T7 CAIRP commercial	Aggregated	Aggregated	DSL	16.390596
LOS ANGELES	2023	T7 NNOOS	Aggregated	Aggregated	DSL	187.176984
LOS ANGELES	2023	T7 NOOS	Aggregated	Aggregated	DSL	65.0452228
LOS ANGELES	2023	T7 POLA	Aggregated	Aggregated	DSL	176.124541
LOS ANGELES	2023	T7 Public	Aggregated	Aggregated	DSL	19.1172428
LOS ANGELES	2023	T7 Single	Aggregated	Aggregated	DSL	58.130993
LOS ANGELES	2023	T7 single commercial	Aggregated	Aggregated	DSL	43.2796885
LOS ANGELES	2023	T7 SWCV	Aggregated	Aggregated	DSL	25.530032
LOS ANGELES	2023	T7 tractor	Aggregated	Aggregated	DSL	222.039606
LOS ANGELES	2023	T7 tractor commercial	Aggregated	Aggregated	DSL	35.8399978

LOS ANGELES	2023 T7 utility	Aggregated	Aggregated	DSL	1.31476872
LOS ANGELES	2023 UBUS	Aggregated	Aggregated	DSL	0.80713293
				Total (day)	1740.6188
				Total (year)	635325.862

el Consumption

ption

x 1000	1740618.799
x 1000	635325861.6

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

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Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Fuel Consumption
LOS ANGELES	2023	LDA	Aggregated	Aggregated	GAS	4943.66007
LOS ANGELES	2023	LDT1	Aggregated	Aggregated	GAS	661.890074
LOS ANGELES	2023	LDT2	Aggregated	Aggregated	GAS	2111.83515
LOS ANGELES	2023	LHD1	Aggregated	Aggregated	GAS	366.240002
LOS ANGELES	2023	LHD2	Aggregated	Aggregated	GAS	69.1165959
LOS ANGELES	2023	MCY	Aggregated	Aggregated	GAS	36.8471368
LOS ANGELES	2023	MDV	Aggregated	Aggregated	GAS	1617.67266
LOS ANGELES	2023	MH	Aggregated	Aggregated	GAS	38.1180307
LOS ANGELES	2023	OBUS	Aggregated	Aggregated	GAS	32.3899635
LOS ANGELES	2023	SBUS	Aggregated	Aggregated	GAS	6.5052723
LOS ANGELES	2023	T6TS	Aggregated	Aggregated	GAS	159.420823
LOS ANGELES	2023	T7IS	Aggregated	Aggregated	GAS	1.42846594
LOS ANGELES	2023	UBUS	Aggregated	Aggregated	GAS	7.76462999
Total (day)						10052.8889
Total (year)						3669304.44

el Consumption
ption

x 1000	10052888.87
x 1000	3669304439

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