

9434 Acadia Behavioral Health Hospital
Energy Calculations

PROJECT CONSTRUCTION - ON-ROAD

Phase	Worker Trips/Day	Worker Trip Length	Worker VMT/Day	Phase Length (Days)	Work VMT (Total)	Vendor Trips (Total)	Vendor Trip Length	Vendor VMT (Total)	Hauling Trips	Hauling Trip Length	Hauling VMT (Total)	
Site Preparation	18	10.8	194	10	1,944.0	0	7.3	0.0	0	20.0	0.0	
Grading	20	10.8	216	60	12,960.0	0	7.3	0.0	6,375	20.0	127,500.0	
Building Construction	97	10.8	1,048	300	314,280.0	42	7.3	306.6	0	20.0	0.0	
Architectural Coatings	19	10.8	205	150	0.0	0	7.3	0.0	0	20.0	0.0	
Paving	15	10.8	162	20	3,240.0	0	7.3	0.0	0	20.0	0.0	Total VMT
					332,424.0			306.6			127,500.0	460,230.6

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Air District

Region: SAN DIEGO COUNTY APCD

Calendar Year: 2021

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	CalYr	VehClass	Fuel	SD Population	Pop %	SD VMT	Fuel Consumption (1,000 gal/day)	SD Gallons/Day	Fuel Efficiency (mpg)	Total VMT	Total Fuel Consumption		
Workers													
San Diego County APCD	2021	LDA	GAS	1,405,370.34	66.6%	54,325,093.78	1,782.11	1,782,112.46	30.48	221,338.18	7,260.91	GAS	
San Diego County APCD	2021	LDA	DSL	16,466.05	0.8%	635,343.57	13.96	13,956.97	45.52	2,593.31	56.97	11,559	
San Diego County APCD	2021	LDA	ELEC	25,194.85	1.2%	1,016,385.30	0.00	0.00	NA	3,968.05	NA		
San Diego County APCD	2021	LDT1	GAS	167,731.34	7.9%	5,908,845.81	230.79	230,789.59	25.60	26,416.77	1,031.79		
San Diego County APCD	2021	LDT1	DSL	122.75	0.0%	2,248.50	0.10	99.82	22.52	19.33	0.86		
San Diego County APCD	2021	LDT1	ELEC	676.89	0.0%	28,400.04	0.00	0.00	NA	106.61	NA	DSL	
San Diego County APCD	2021	LDT2	GAS	489,176.14	23.2%	17,914,883.58	759.48	759,478.82	23.59	77,042.58	3,266.12	71	
San Diego County APCD	2021	LDT2	DSL	2,855.05	0.1%	121,070.41	3.61	3,609.70	33.54	449.65	13.41		
San Diego County APCD	2021	LDT2	ELEC	3,108.08	0.1%	106,352.43	0.00	0.00	NA	489.50	NA		
Delivery/Hauling										Delivery Total VMT	Delivery Fuel Consumption	Hauling Total VMT	Hauling Fuel Consumption
San Diego County APCD	2021	T7 CAIRP	DSL	1,877.95	11.9%	333,495.86	50.07	50,070.29	6.66	36.40	5.47	15,138.39	2,272.84
San Diego County APCD	2021	T7 CAIRP construction	DSL	174.77	1.1%	31,581.27	5.49	5,490.54	5.75	3.39	0.59	1,408.88	244.94
San Diego County APCD	2021	T7 NNOOS	DSL	2,026.69	12.8%	406,553.25	58.76	58,758.69	6.92	39.29	5.68	16,337.45	2,361.23
San Diego County APCD	2021	T7 NOOS	DSL	737.37	4.7%	131,026.46	20.13	20,134.02	6.51	14.29	2.20	5,944.01	913.38
San Diego County APCD	2021	T7 POLA	DSL	231.08	1.5%	29,275.80	5.62	5,623.06	5.21	4.48	0.86	1,862.73	357.78
San Diego County APCD	2021	T7 Public	DSL	1,485.61	9.4%	30,113.83	5.95	5,945.86	5.06	28.80	5.69	11,975.68	2,364.55
San Diego County APCD	2021	T7 Single	DSL	2,092.36	13.2%	137,751.65	22.95	22,952.19	6.00	40.56	6.76	16,866.81	2,810.35
San Diego County APCD	2021	T7 single construction	DSL	1,114.26	7.0%	78,347.32	14.74	14,743.51	5.31	21.60	4.06	8,982.22	1,690.29
San Diego County APCD	2021	T7 SWCV	DSL	636.64	4.0%	26,012.27	11.72	11,724.39	2.22	12.34	5.56	5,132.08	2,313.16
San Diego County APCD	2021	T7 SWCV	DSL	841.79	5.3%	34,235.23	13.98	13,984.93	2.45	16.32	6.67	6,785.78	2,771.96
San Diego County APCD	2021	T7 tractor	DSL	3,541.85	22.4%	484,557.39	67.27	67,269.37	7.20	68.66	9.53	28,551.32	3,963.68
San Diego County APCD	2021	T7 tractor construction	DSL	930.47	5.9%	64,629.65	12.25	12,250.16	5.28	18.04	3.42	7,500.68	1,421.71
San Diego County APCD	2021	T7 utility	DSL	125.78	0.8%	2,551.98	0.43	434.17	5.88	2.44	0.41	1,013.96	172.50
										306.60	57	127,500.00	23,658
												Total Diesel	23,786

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Phase	Phase Length (Days)	Equipment	Amount	Daily Usage Hours	Total Usage Hours	Horse Power	Load Factor	Fuel Used (Gallons)
Site Preparation	10	Rubber Tired Dozers	3	8	240	247	0.40	1,224
		Tractors/Loaders/Backhoes	4	8	320	97	0.37	659
Grading	60	Excavators	2	8	960	158	0.38	2,976
		Graders	1	8	480	187	0.41	1,900
		Rubber Tired Dozers	1	8	480	247	0.40	2,448
		Scrapers	2	8	960	367	0.48	8,731
		Tractors/Loaders/Backhoes	2	8	960	97	0.37	1,977
Building Construction	300	Cranes	1	7	2,100	231	0.29	7,263
		Forklifts	3	8	7,200	89	0.20	7,355
		Generator Sets	1	8	2,400	84	0.74	8,562
		Tractors/Loaders/Backhoes	3	7	6,300	97	0.37	12,977
		Welders	1	8	2,400	46	0.45	2,851
Paving	20	Pavers	2	8	320	130	0.42	902
		Paving Equipment	2	8	320	132	0.36	785
		Rollers	2	8	320	80	0.38	558
Architectural Coatings	150	Air Compressors	1	6	900	78	0.48	1,934
								63,102

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VEHICLES

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: Air District

Region: San Diego County APCD

Calendar Year: 2022

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

Daily Trips	2,400
Tip Length	9.6
Daily VMT	23,040
Annual VMT	8,409,600

Region	CalYr	VehClass	Fuel	SD Population	Pop %	SD VMT	SD Trips	Fuel Consumption (1,000 gal/day)	SD Gallons/Day	Fuel Efficiency	VMT	Gallons or kWh/Day	Gallons or kWh/Year
San Diego County APCD	2022	LDA	GAS	1,435,699.42	96.8%	55,007,780.65	6,783,861.73	1,756.77	1,756,768.47	31.31 mpg	22,313	713	260,105
San Diego County APCD	2022	LDA	DSL	17,133.82	1.2%	652,152.32	80,255.84	13.99	13,986.90	46.63 mpg	266	6	2,085
San Diego County APCD	2022	LDA	ELEC	29,615.72	2.0%	1,220,433.52	147,126.82	0.00	0.00	3.40 kWh/mile	460	135	49,413
								1,770.76	1,770,755.37				23,040.00

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ELECTRICITY & NATURAL GAS

LandUseSubType	LandUseUnitAmount	LandUseSizeMetric
Hospital	120.0	beds
Parking Lot	3.6	acres

EnergyUseLandUseSubType	kWh/Year	kBTU/Year
Hospital	1,626,560.0	5,625,990.0
Parking Lot	54,885.6	0.0
Total/year	1,681,445.6	5,625,990.0