

Modified Project Construction Off-Road Equipment (CalEEMod 2022.1)											
Phase	Off-Road Equipment Type	Amount	Usage Hour/Day	Total Usage Days	Total Usage Hours/Equipment	Horsepower	Load Factor	Total Usage Hours/ Equipment	Horsepower-Hour	Fuel Usage (gallons)	
Demolition	Concrete/Industrial Saws	1	8	45	360	33	0.73	360	8672.4	444.02688	
	Excavators	3	8	45	1080	36	0.38	1080	14774.4	756.44928	
	Rubber Tired Dozers	2	8	45	720	367	0.4	720	105696	5411.6352	
Site Preparation	Rubber Tired Dozers	3	8	30	720	367	0.4	720	105696	5411.6352	
	Tractors/Loaders/Backhoes	4	8	30	960	84	0.37	960	29836.8	1527.64416	
Grading	Excavators	1	8	25	200	36	0.38	200	2736	140.0832	
	Graders	1	8	25	200	148	0.41	200	12136	621.3632	
	Rubber Tired Dozers	1	8	25	200	367	0.4	200	29360	1503.232	
	Tractors/Loaders/Backhoes	3	8	25	600	84	0.37	600	18648	954.7776	
Building Construction	Cranes	1	7	405	2835	367	0.29	2835	301729.05	15448.52736	
	Forklifts	3	8	405	9720	82	0.2	9720	159408	8161.6896	
	Generator Sets	1	8	405	3240	14	0.74	3240	33566.4	1718.59968	
	Tractors/Loaders/Backhoes	3	7	405	8505	84	0.37	8505	264335.4	13533.97248	
	Welders	1	8	405	3240	46	0.45	3240	67068	3433.8816	
Paving	Cement and Mortar Mixes	2	6	15	180	10	0.56	180	1008	51.6096	
	Pavers	1	8	15	120	81	0.42	120	4082.4	209.01888	
	Paving Equipment	2	6	15	180	89	0.36	180	5767.2	295.28064	
	Tractors/Loaders/Backhoes	1	8	15	120	84	0.37	120	3729.6	190.95552	
	Rollers	2	6	15	180	36	0.38	180	2462.4	126.07488	
Architectural Coating	Air Compressors	1	6	260	1560	37	0.48	1560	27705.6	1418.52672	
									Total	61358.98368	

Diesel

Modified Project Construction Truck and Construction Worker Vehicle Fuel Efficiency (CalEEMod 2022.1)				
Vehicle Type	Vehicle Class	EMFAC 2021 Outputs		Fuel Efficiency (miles/gallon)
		Fuel Consumption (1,000 gallons/day)	VMT (miles/ day)	
Construction Truck	MHDT	129.3	1155909.0	8.9
	HHDT	202.3	1220548.0	6.0
	HHDT/MHDT	-	-	7.5
Construction Worker Vehicle	LDA	1408.4	42285386.0	30.0
	LDT1	139.0	3495530	25.2
	LDT2	872.9	21321177	24.4
	Worker Mix	-	-	27.4

Notes:

¹ For construction trucks assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks. For construction worker vehicles assumes 50 percent LDA, 25 percent LDT1, and 25 percent LDT2 vehicles, consistent with assumptions in CalEEMod for worker vehicles.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Modified Project Construction Vehicle Fuel Use - Diesel Vehicles (CalEEMod 2022.1)						
Phase	Trip Type	Total Trips	Trip Length (miles)	Total VMT	Diesel Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	Hauling	1260	35	44100	6.0	7350.0
Grading	Hauling	2700	35	94500	6.0	15750.0
Building Construction	Vendor	18630	10.2	190026	7.5	25336.8
					Total	41086.8

Diesel

¹ Assumes 100 percent HHDT vehicles for haul trucks and 50 percent HHDT/50 percent MHDT vehicles for MHDT, consistent with assumptions in CalEEMod.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Modified Project Construction Worker Vehicle Fuel Use - Gasoline Vehicles (CalEEMod 2022.1)							
Phase	Total One-Way Trips/Day	Total Days	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	15	45	1350	18.5	24975	27.4	911.5
Site Preparation	18	30	1080	18.5	19980	27.4	729.2
Grading	15	25	750	18.5	13875	27.4	506.4
Building Construction	185	405	149850	18.5	2772225	27.4	101176.1
Paving	20	15	600	18.5	11100	27.4	405.1
Architectural Coating	26	260	13520	18.5	250120	27.4	9128.5
					Total		112856.8

Gas

Modified Project Total Construction Gasoline Usage	112856.8
Modified Project Total Construction Diesel Usage	102445.8

Modified Project Operational Trips (CalEEMod 2022.1)			
Congregate Care (Assisted Living)			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.49465	491	242.9
LDT1	0.03999	491	19.6
LDT2	0.23599	491	115.9
MDV	0.14523	491	71.3
LHD1	0.02784	491	13.7
LHD2	0.0073	491	3.6
MHD	0.01553	491	7.6
HHD	0.00576	491	2.8
OBUS	0.0006	491	0.3
UBUS	0.000356	491	0.2
MCY	0.02219	491	10.9
SBUS	0.00097	491	0.5
MH	0.0036	491	1.8

Modified Project Operational Trips – Fuel Efficiency (CalEEMod 2022.1)					
Fuel	Vehicle Class	EMFAC2021 Outputs ¹			
		Fleet Mix (%) ²	Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency ³ (miles/gallon)
Gas	LDA	51%	1,326.2	41,577,927.1	31.4
	LDT1	4%	130.0	3,392,265.4	26.1
	LDT2	27%	849.8	21,784,157.5	25.6
	MDV	16%	610.0	12,693,098.0	20.8
	LHD1	2%	113.3	1,657,395.4	14.6
	MCY	0%	7.8	330,192.4	42.4
	MH	0%	11.4	55,665.0	4.9
	Fleet Mix	–	–	–	27.6
Diesel	LHD2	15%	23.8	422,248.8	17.7
	MHDT	41%	129.2	1,163,540.0	9.0
	HHDT	44%	202.2	1,251,031.0	6.2
	Fleet Mix	–	–	–	9.1

16.0
1.1
6.9
3.2
0.3
0.2
0.0
27.6
2.6
3.7
2.7
9.1

Notes:

¹ EMFAC2021 was run for Orange County for the operational year 2026. Data was aggregated over all vehicle model years and speed bins.

² Fleet mix is based on assumptions made in CalEEMod for the proposed project.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Modified Project Operational Trips – Fuel Usage (CalEEMod 2022.1)						
Land Use	Total Annual VMT ² (miles/year)	Fuel Type	Portion of Fleet ³ (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency ⁴ (miles/gallon)	Fuel Usage (gallons/year)
Congregate Care (Assisted Living)	1,874,466	Gas	97%	1820886	27.6	65860.9
		Diesel	3%	53591	9.1	5914.3
					Total Gasoline/year	65860.9
					Total Diesel/year	5914.3

Notes:

¹ Calculated for operational year 2026 only. Future years will likely use less fuel due to more efficient cars.

² Total VMT is based on project's trip generation and trip lengths.

³ Fleet distribution is based on EMFAC2021 output and CalEEMod assumptions.

⁴ Fuel efficiency is based on fuel consumption and VMT data from EMFAC2021 for Orange County and total VMT.

Modified Project Electricity Usage (CalEEMod 2022.1)	
Electricity by Land Use	kWh/year
Congregate Care (Assisted Living)	582,868
Enclosed Parking with Elevator	125,509
Parking Lot	5,724
Total	714,101

Modified Project Natural Gas Usage (CalEEMod 2022.1)			
Natural Gas by Land Use	kBTU/year	BTU/year	therms/year
Congregate Care (Assisted Living)	1,765,988	1,765,988,000	17,663
Enclosed Parking with Elevator	-	-	-
Parking Lot	-	-	-
Total	1,765,988	1,765,988,000	17,663

Originally Proposed Project Construction Off-Road Equipment (CalEEMod 2022.1)										
Phase	Off-Road Equipment Type	Amount	Usage Hour/Day	Total Usage Days	Total Usage Hours/Equipment	Horsepower	Load Factor	Total Usage Hours/ Equipment	Horsepower-Hour	Fuel Usage (gallons)
Demolition	Concrete/Industrial Saws	1	8	45	360	33	0.73	360	8672.4	444.02688
	Excavators	3	8	45	1080	36	0.38	1080	14774.4	756.44928
	Rubber Tired Dozers	2	8	45	720	367	0.4	720	105696	5411.6352
	Tractors/Loaders/Backhoes	3	8	45	1080	36	0.38	1080	14774.4	756.44928
Site Preparation	Graders	1	8	30	240	148	0.41	240	14563.2	745.63584
	Scrapers	1	8	30	240	423	0.48	240	48729.6	2494.95552
	Rubber Tired Dozers	3	8	30	720	367	0.4	720	105696	5411.6352
	Tractors/Loaders/Backhoes	4	8	30	960	84	0.37	960	29836.8	1527.64416
Grading	Excavators	1	8	25	200	36	0.38	200	2736	140.0832
	Graders	1	8	25	200	148	0.41	200	12136	621.3632
	Rubber Tired Dozers	1	8	25	200	367	0.4	200	29360	1503.232
	Tractors/Loaders/Backhoes	3	8	25	600	84	0.37	600	18648	954.7776
Building Construction	Cranes	1	7	425	2975	367	0.29	2975	316629.25	16211.4176
	Forklifts	3	8	425	10200	82	0.2	10200	167280	8564.736
	Generator Sets	1	8	425	3400	14	0.74	3400	35224	1803.4688
	Tractors/Loaders/Backhoes	3	7	425	8925	84	0.37	8925	277389	14202.3168
	Welders	1	8	425	3400	46	0.45	3400	70380	3603.456
Paving	Cement and Mortar Mixes	2	6	15	180	10	0.56	180	1008	51.6096
	Pavers	1	8	15	120	81	0.42	120	4082.4	209.01888
	Paving Equipment	2	6	15	180	89	0.36	180	5767.2	295.28064
	Tractors/Loaders/Backhoes	1	8	15	120	84	0.37	120	3729.6	190.95552
	Rollers	2	6	15	180	36	0.38	180	2462.4	126.07488
Architectural Coating	Air Compressors	1	6	260	1560	37	0.48	1560	27705.6	1418.52672
									Total	67444.7488

Diesel

Originally Proposed Project Construction Truck and Construction Worker Vehicle Fuel Efficiency (CalEEMod 2022.1)				
Vehicle Type	Vehicle Class	EMFAC 2021 Outputs		Fuel Efficiency (miles/gallon)
		Fuel Consumption (1,000 gallons/day)	VMT (miles/ day)	
Construction Truck	MHDT	129.3	1155909.0	8.9
	HHDT	202.3	1220548.0	6.0
	HHDT/MHDT	-	-	7.5
Construction Worker Vehicle	LDA	1408.4	42285386.0	30.0
	LDT1	139.0	3495530	25.2
	LDT2	872.9	21321177	24.4
	Worker Mix	-	-	27.4

Notes:

¹ For construction trucks assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks. For construction worker vehicles assumes 50 percent LDA, 25 percent LDT1, and 25 percent LDT2 vehicles, consistent with assumptions in CalEEMod for worker vehicles.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Construction Vehicle Fuel Use - Diesel Vehicles (CalEEMod 2022.1)						
Phase	Trip Type	Total Trips	Trip Length (miles)	Total VMT	Diesel Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	Hauling	1260	35	44100	6.0	7350.0
Grading	Hauling	16500	35	577500	6.0	96250.0
Building Construction	Vendor	30600	10.2	312120	7.5	41616.0
Total						137866.0

Diesel

¹ Assumes 100 percent HHDT vehicles for haul trucks and 50 percent HHDT/50 percent MHDT vehicles for MHDT, consistent with assumptions in CalEEMod.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Construction Worker Vehicle Fuel Use - Gasoline Vehicles (CalEEMod 2022.1)							
Phase	Total One-Way Trips/Day	Total Days	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	23	45	2070	18.5	38295	27.4	1397.6
Site Preparation	23	30	1380	18.5	25530	27.4	931.8
Grading	15	25	750	18.5	13875	27.4	506.4
Building Construction	200	425	170000	18.5	3145000	27.4	114781.0
Paving	20	15	600	18.5	11100	27.4	405.1
Architectural Coating	38	260	19760	18.5	365560	27.4	13341.6
Total							131363.5

Gas

Originally Proposed Project Total Construction Gasoline Usage	131363.5
Originally Proposed Project Total Construction Diesel Usage	199225.0

Originally Proposed Project Operational Trips (CalEEMod 2022.1)			
Congregate Care (Assisted Living)			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.497102708	537	266.9
LDT1	0.040692139	537	21.9
LDT2	0.233838722	537	125.6
MDV	0.144894972	537	77.8
LHD1	0.027606877	537	14.8
LHD2	0.007159958	537	3.8
MHD	0.015428545	537	8.3
HHD	0.005649671	537	3.0
OBUS	0.00060298	537	0.3
UBUS	0.000357084	537	0.2
MCY	0.022017239	537	11.8
SBUS	0.000966633	537	0.5
MH	0.003682476	537	2.0

Originally Proposed Project Operational Trips – Fuel Efficiency (CalEEMod 2022.1)					
Fuel	Vehicle Class	EMFAC2021 Outputs ¹			
		Fleet Mix (%) ²	Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency ³ (miles/gallon)
Gas	LDA	51%	1,326.2	41,577,927.1	31.4
	LDT1	4%	130.0	3,392,265.4	26.1
	LDT2	27%	849.8	21,784,157.5	25.6
	MDV	16%	610.0	12,693,098.0	20.8
	LHD1	2%	113.3	1,657,395.4	14.6
	MCY	0%	7.8	330,192.4	42.4
	MH	0%	11.4	55,665.0	4.9
	Fleet Mix	–	–	–	27.6
Diesel	LHD2	15%	23.8	422,248.8	17.7
	MHDT	41%	129.2	1,163,540.0	9.0
	HHDT	44%	202.2	1,251,031.0	6.2
	Fleet Mix	–	–	–	9.1

16.0
1.1
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3.2
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0.2
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27.6
2.6
3.7
2.7
9.1

Notes:

¹ EMFAC2021 was run for Orange County for the operational year 2026. Data was aggregated over all vehicle model years and speed bins.

² Fleet mix is based on assumptions made in CalEEMod for the proposed project.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Operational Trips – Fuel Usage (CalEEMod 2022.1)						
Land Use	Total Annual VMT ² (miles/year)	Fuel Type	Portion of Fleet ³ (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency ⁴ (miles/gallon)	Fuel Usage (gallons/year)
Congregate Care (Assisted Living)	2,049,196	Gas	97%	1991330	27.6	72025.8
		Diesel	3%	57866	9.1	6386.1
					Total Gasoline/year	72025.8
					Total Diesel/year	6386.1

Notes:

¹ Calculated for operational year 2026 only. Future years will likely use less fuel due to more efficient cars.

² Total VMT is based on project's trip generation and trip lengths.

³ Fleet distribution is based on EMFAC2021 output and CalEEMod assumptions.

⁴ Fuel efficiency is based on fuel consumption and VMT data from EMFAC2021 for Orange County and total VMT.

Originally Proposed Project Electricity Usage (CalEEMod 2022.1)	
Electricity by Land Use	kWh/year
Congregate Care (Assisted Living)	780,823
Enclosed Parking with Elevator	289,919
Total	1,070,742

Originally Proposed Project Natural Gas Usage (CalEEMod 2022.1)			
Natural Gas by Land Use	kBTU/year	BTU/year	therms/year
Congregate Care (Assisted Living)	2,365,758	2,365,758,000	23,662
Enclosed Parking with Elevator	-	-	-
Parking Lot	-	-	-
Total	2,365,758	2,365,758,000	23,662

Existing Uses Operational Trips (CalEEMod 2022.1)			
Congregate Care (Assisted Living)			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.50238	947	475.8
LDT1	0.04225	947	40.0
LDT2	0.22918	947	217.0
MDV	0.14424	947	136.6
LHD1	0.02714	947	25.7
LHD2	0.00689	947	6.5
MHD	0.01516	947	14.4
HHD	0.00536	947	5.1
OBUS	0.00609	947	5.8
UBUS	0.00036	947	0.3
MCY	0.02162	947	20.5
SBUS	0.00097	947	0.9
MH	0.00387	947	3.7

Existing Uses Operational Trips – Fuel Efficiency (CalEEMod 2022.1)					
Fuel	Vehicle Class	EMFAC2021 Outputs ¹			
		Fleet Mix (%) ²	Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency ³ (miles/gallon)
Gas	LDA	53%	1,477.5	42,617,006.0	28.8
	LDT1	4%	146.6	3,561,400.0	24.3
	LDT2	25%	881.8	20,509,218.0	23.3
	MDV	15%	650.6	12,350,244.0	19.0
	LHD1	2%	122.4	1,625,999.0	13.3
	MCY	0%	7.4	306,702.6	41.7
	MH	0%	12.6	61,712.1	4.9
	Fleet Mix	–	–	–	25.4
Diesel	LHD2	3%	2.3	82667.4	35.9
	MHDT	47%	127.7	1,137,257.0	8.9
	HHDT	49%	200.2	1,181,254.0	5.9
	Fleet Mix	–	–	–	8.4

15.2
1.1
5.9
2.9
0.3
0.2
0.0
25.4
1.2
4.2
2.9
8.4

Notes:

¹ EMFAC2021 was run for Orange County for the operational year 2022. Data was aggregated over all vehicle model years and speed bins.

² Fleet mix is based on assumptions made in CalEEMod for the proposed project.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Existing Uses Operational Trips – Fuel Usage (CalEEMod 2022.1)						
Land Use	Total Annual VMT ² (miles/year)	Fuel Type	Portion of Fleet ³ (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency ⁴ (miles/gallon)	Fuel Usage (gallons/year)
Strip Mall and General Office Building	4,699,240	Gas	98%	4596327	25.4	180632.7
		Diesel	3%	128806	8.4	15414.2
					Total Gasoline/year	180632.7
					Total Diesel/year	15414.2

Notes:

¹ Calculated for operational year 2022 only. Future years will likely use less fuel due to more efficient cars.

² Total VMT is based on project's trip generation and trip lengths.

³ Fleet distribution is based on EMFAC2021 output and CalEEMod assumptions.

⁴ Fuel efficiency is based on fuel consumption and VMT data from EMFAC2021 for Orange County and total VMT.

Existing Uses Electricity Usage (CalEEMod 2022.1)	
Electricity by Land Use	kWh/year
General Office Building	621803
Strip Mall	102633
Total	724,436

Existing Uses Natural Gas Usage (CalEEMod 2022.1)			
Natural Gas by Land Use	kBTU/year	BTU/year	therms/year
General Office Building	884,414	884,414,000	8,846
Strip Mall	62,564	62,564,000	626
Total	946,978	946,978,000	9,472

Originally Proposed Project Construction Truck and Construction Worker Vehicle Fuel Efficiency (CalEEMod 2020.4.0)				
Vehicle Type	Vehicle Class	EMFAC 2021 Outputs		
		Fuel Consumption (1,000 gallons/day)	VMT (miles/ day)	Fuel Efficiency (miles/gallon)
Construction Truck	MHDT	129.3	1155909.0	8.9
	HHDT	202.3	1220548.0	6.0
	HHDT/MHDT	-	-	7.5
Construction Worker Vehicle	LDA	1408.4	42285386.0	30.0
	LDT1	139.0	3495530	25.2
	LDT2	872.9	21321177	24.4
	Worker Mix	-	-	27.4

Notes:

¹ For construction trucks assumes 50 percent HHDT and 50 percent MHDT vehicles, consistent with assumptions in CalEEMod for hauling trucks. For construction worker vehicles assumes 50 percent LDA, 25 percent LDT1, and 25 percent LDT2 vehicles, consistent with assumptions in CalEEMod for worker vehicles.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Construction Vehicle Fuel Use - Diesel Vehicles (CalEEMod 2020.4.0)						
Phase	Trip Type	Total Trips	Trip Length (miles)	Total VMT	Diesel Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	Hauling	250	35	8750	6.0	1458.3
Grading	Hauling	6875	35	240625	6.0	40104.2
Building Construction	Vendor	33150	6.9	228735	7.5	30498.0
					Total	70602.2

Diesel

¹ Assumes 100 percent HHDT vehicles for haul trucks and 50 percent HHDT/50 percent MHDT vehicles for MHDT, consistent with assumptions in CalEEMod.

² EMFAC2021 was run for Orange County for the construction year 2024. Data was aggregated over all vehicle model years and speed bins.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Construction Worker Vehicle Fuel Use - Gasoline Vehicles (CalEEMod 2020.4.0)							
Phase	Total One-Way Trips/Day	Total Days	Total Trips	Trip Length (miles)	Total VMT	Gasoline Fuel Efficiency (miles/gallon)	Fuel Usage (gallons/year)
Demolition	15	45	1350	14.7	19845	27.4	724.3
Site Preparation	18	30	1080	14.7	15876	27.4	579.4
Grading	15	25	750	14.7	11025	27.4	402.4
Building Construction	200	425	170000	14.7	2499000	27.4	91204.4
Paving	20	15	600	14.7	8820	27.4	321.9
Architectural Coating	38	260	19760	14.7	290472	27.4	10601.2
						Total	103833.5

Gas

Total Originally Proposed Project Construction Gasoline Usage	103833.5
Total Originally Proposed Project Construction Diesel Usage	143446.0

Originally Proposed Project Construction Off-Road Equipment (CalEEMod 2020.4.0)												
Phase	Off-Road Equipment Type	Amount	Usage Hour/Day	Total Usage Days	Total Usage Hours/Equipment	Horsepower	Load Factor	Total Usage Hours/ Equipment	Horsepower-Hour	Fuel Usage (gallons)		
Demolition	Concrete/Industrial Saws	1	8	45	360	81	0.73	360	21286.8	1089.88416		
	Excavators	3	8	45	1080	158	0.38	1080	64843.2	3319.97184		
	Rubber Tired Dozers	2	8	45	720	247	0.4	720	71136	3642.1632		
Site Preparation	Rubber Tired Dozers	3	8	30	720	247	0.4	720	71136	3642.1632		
	Tractors/Loaders/Backhoes	4	8	30	960	97	0.37	960	34454.4	1764.06528		
Grading	Excavators	1	8	25	200	158	0.38	200	12008	614.8096		
	Graders	1	8	25	200	187	0.41	200	15334	785.1008		
	Rubber Tired Dozers	1	8	25	200	247	0.4	200	19760	1011.712		
	Tractors/Loaders/Backhoes	3	8	25	600	97	0.37	600	21534	1102.5408		
Building Construction	Cranes	1	7	425	2975	231	0.29	2975	199295.25	10203.9168		
	Forklifts	3	8	425	10200	89	0.2	10200	181560	9295.872		
	Generator Sets	1	8	425	3400	84	0.74	3400	211344	10820.8128		
	Tractors/Loaders/Backhoes	3	7	425	8925	97	0.37	8925	320318.25	16400.2944		
	Welders	1	8	425	3400	46	0.45	3400	70380	3603.456		
Paving	Cement and Mortar Mixes	2	6	15	180	9	0.56	180	907.2	46.44864		
	Pavers	1	8	15	120	130	0.42	120	6552	335.4624		
	Paving Equipment	2	8	15	240	132	0.36	240	11404.8	583.92576		
	Tractors/Loaders/Backhoes	1	8	15	120	97	0.37	120	4306.8	220.50816		
	Rollers	2	8	15	240	80	0.38	240	7296	373.5552		
Architectural Coating	Air Compressors	1	8	260	2080	78	0.48	2080	77875.2	3987.21024		
									Total		72843.87328	Diesel

Originally Proposed Project Operational Trips (CalEEMod 2020.4.0)			
Congregate Care (Assisted Living)			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.548528	537	294.6
LDT1	0.060762	537	32.6
LDT2	0.184345	537	99.0
MDV	0.125235	537	67.3
LHD1	0.024171	537	13.0
LHD2	0.006748	537	3.6
MHD	0.014885	537	8.0
HHD	0.004939	537	2.7
OBUS	0.000666	537	0.4
UBUS	0.000374	537	0.2
MCY	0.024916	537	13.4
SBUS	0.000699	537	0.4
MH	0.003732	537	2.0

Originally Proposed Project Operational Trips – Fuel Efficiency (CalEEMod 2020.4.0)					
Fuel	Vehicle Class	EMFAC2021 Outputs ¹			
		Fleet Mix (%) ²	Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency ³ (miles/gallon)
Gas	LDA	51%	1,326.2	41,577,927.1	31.4
	LDT1	4%	130.0	3,392,265.4	26.1
	LDT2	27%	849.8	21,784,157.5	25.6
	MDV	16%	610.0	12,693,098.0	20.8
	LHD1	2%	113.3	1,657,395.4	14.6
	MCY	0%	7.8	330,192.4	42.4
	MH	0%	11.4	55,665.0	4.9
	Fleet Mix	–	–	–	27.6
Diesel	LHD2	15%	23.8	422,248.8	17.7
	MHDT	41%	129.2	1,163,540.0	9.0
	HHDT	44%	202.2	1,251,031.0	6.2
	Fleet Mix	–	–	–	9.1

16.0
1.1
6.9
3.2
0.3
0.2
0.0
27.6
2.6
3.7
2.7
9.1

Notes:

¹ EMFAC2021 was run for Orange County for the operational year 2026. Data was aggregated over all vehicle model years and speed bins.

² Fleet mix is based on assumptions made in CalEEMod for the proposed project.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Originally Proposed Project Operational Trips – Fuel Usage (CalEEMod 2020.4.0)						
Land Use	Total Annual VMT ² (miles/year)	Fuel Type	Portion of Fleet ³ (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency ⁴ (miles/gallon)	Fuel Usage (gallons/year)
Congregate Care (Assisted Living)	1,834,190	Gas	97%	1785452	27.6	64579.2
		Diesel	3%	48738	9.1	5378.8
					Total Gasoline/year	64579.2
					Total Diesel/year	5378.8

Notes:

¹ Calculated for operational year 2026 only. Future years will likely use less fuel due to more efficient cars.

² Total VMT is based on project's trip generation and trip lengths.

³ Fleet distribution is based on EMFAC2021 output and CalEEMod assumptions.

⁴ Fuel efficiency is based on fuel consumption and VMT data from EMFAC2021 for Orange County and total VMT.

Originally Proposed Project Electricity Usage (CalEEMod 2020.4.0)	
Electricity by Land Use	kWh/year
Congregate Care (Assisted Living)	816606
City Park	0
Enclosed Parking Lot	434,700
Total	1,251,306

Originally Proposed Project Natural Gas Usage (CalEEMod 2020.4.0)			
Natural Gas by Land Use	kBTU/year	BTU/year	therms/year
Congregate Care (Assisted Living)	2,374,870	2,374,870,000	23,753
City Park	-	-	-
Enclosed Parking Lot	-	-	-
Total	2,374,870	2,374,870,000	23,753

Existing Uses Operational Trips (CalEEMod 2020.4.0)			
Commercial			
Vehicle Class	CalEEMod	Total Project Trips	Total Trips per Vehicle Class
LDA	0.5462	947	517.3
LDT1	0.059546	947	56.4
LDT2	0.18591	947	176.1
MDV	0.127866	947	121.1
LHD1	0.024295	947	23.0
LHD2	0.006605	947	6.3
MHD	0.014499	947	13.7
HHD	0.004906	947	4.6
OBUS	0.000657	947	0.6
UBUS	0.000381	947	0.4
MCY	0.024552	947	23.3
SBUS	0.000713	947	0.7
MH	0.003869	947	3.7

Existing Uses Operational Trips – Fuel Efficiency (CalEEMod 2020.4.0)					
Fuel	Vehicle Class	EMFAC2021 Outputs ¹			
		Fleet Mix (%) ²	Consumption (1,000 gallons/day)	VMT (miles/day)	Fuel Efficiency ³ (miles/gallon)
Gas	LDA	53%	1,477.5	42,617,006.0	28.8
	LDT1	4%	146.6	3,561,400.0	24.3
	LDT2	25%	881.8	20,509,218.0	23.3
	MDV	15%	650.6	12,350,244.0	19.0
	LHD1	2%	122.4	1,625,999.0	13.3
	MCY	0%	7.4	306,702.6	41.7
	MH	0%	12.6	61,712.1	4.9
	Fleet Mix	–	–	–	25.4
Diesel	LHD2	3%	2.3	82667.4	35.9
	MHDT	47%	127.7	1,137,257.0	8.9
	HHDT	49%	200.2	1,181,254.0	5.9
	Fleet Mix	–	–	–	8.4

15.2
1.1
5.9
2.9
0.3
0.2
0.0
25.4
1.2
4.2
2.9
8.4

Notes:

¹ EMFAC2021 was run for Orange County for the operational year 2022. Data was aggregated over all vehicle model years and speed bins.

² Fleet mix is based on assumptions made in CalEEMod for the proposed project.

³ The fuel efficiency was calculated by dividing the VMT (miles/day) by the fuel consumption (gallons/day).

Existing Uses Operational Trips – Fuel Usage (CalEEMod 2020.4.0)						
Land Use	Total Annual VMT ² (miles/year)	Fuel Type	Portion of Fleet ³ (%)	VMT by Fuel Type (miles/year)	Fleet Mix Efficiency ⁴ (miles/gallon)	Fuel Usage (gallons/year)
Strip Mall and General Office Building	2,300,756	Gas	97%	2240911	25.4	88066.4
		Diesel	3%	59843	8.4	7161.4
Existing Uses Operational Trips – Fuel Usage					Total Gasoline/year	88066.4
					Total Diesel/year	7161.4

Notes:

¹ Calculated for operational year 2022 only. Future years will likely use less fuel due to more efficient cars.

² Total VMT is based on project's trip generation and trip lengths.

³ Fleet distribution is based on EMFAC2021 output and CalEEMod assumptions.

⁴ Fuel efficiency is based on fuel consumption and VMT data from EMFAC2021 for Orange County and total VMT.

Existing Uses Electricity Usage (CalEEMod 2020.4.0)	
Electricity by Land Use	kWh/year
General Office Building	571547
Strip Mall	140408
Total	711,955

Existing Uses Natural Gas Usage (CalEEMod 2020.4.0)			
Natural Gas by Land Use	kBTU/year	BTU/year	therms/year
General Office Building	377,891	377,891,000	3,780
Strip Mall	22,043	22,043,200	220
Total	399,934	399,934,200	4,000