
Appendix A:

Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

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Appendix A: Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

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Electric Vehicle Transit Yard Project Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Electric Vehicle Transit Yard Project
Construction Start Date	7/1/2027
Lead Agency	Mariposa County
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80000
Precipitation (days)	18.2000
Location	37.50048794868812, -119.98526247261438
County	Mariposa
City	Unincorporated
Air District	Mariposa County APCD
Air Basin	Mountain Counties
TAZ	3020
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Parking Lot	31.0000	Space	1.54000	0.00000	1,719.00	0.00000	—	The project consists of a transit yard featuring a solar canopy and electric vehicle charging stations with 31 parking stalls on 1.54 acres with 1,719 square feet of landscaping.
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2. Emissions Summary

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.72969	1.46058	12.9493	14.6804	0.02574	0.54204	2.76626	3.30831	0.49893	1.30453	1.80346	—	2,847.70	2,847.70	0.10457	0.07049	0.73670	2,872.05
2028	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	0.03953	0.23087	0.21240	0.00927	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	0.15822	1,807.49
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.16707	0.97105	8.25338	9.90715	0.01942	0.26132	0.13065	0.30429	0.24041	0.03231	0.24041	—	1,800.91	1,800.91	0.07305	0.03131	0.01774	1,807.09
2028	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	0.03953	0.23087	0.21240	0.00927	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	0.00409	1,807.49
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.37349	0.31593	2.46704	3.16334	0.00516	0.09619	0.16157	0.25777	0.08852	0.07156	0.16008	—	542.946	542.946	0.02186	0.00816	0.05438	545.979
2028	0.50448	0.42077	3.60228	4.42217	0.00906	0.10839	0.00599	0.11438	0.09972	0.00140	0.10112	—	871.902	871.902	0.03554	0.00728	0.01047	874.970
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.06816	0.05766	0.45024	0.57731	0.00094	0.01756	0.02949	0.04704	0.01615	0.01306	0.02921	—	89.8908	89.8908	0.00362	0.00135	0.00900	90.3931
2028	0.09207	0.07679	0.65742	0.80705	0.00165	0.01978	0.00109	0.02088	0.01820	0.00026	0.01845	—	144.353	144.353	0.00588	0.00121	0.00173	144.861

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.63491	1.37378	12.1813	13.8677	0.02267	0.53897	2.62117	3.16014	0.49585	1.26724	1.76310	—	2,455.46	2,455.46	0.09960	0.01992	0.00000	2,463.88
2028	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	0.00000	0.23087	0.21240	0.00000	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	0.00000	1,807.49
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	1.16707	0.97105	8.25338	9.90715	0.01942	0.26132	0.00000	0.26132	0.24041	0.00000	0.24041	—	1,800.91	1,800.91	0.07305	0.01461	0.00000	1,807.09
2028	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	0.00000	0.23087	0.21240	0.00000	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	0.00000	1,807.49
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.35202	0.29644	2.40227	2.97711	0.00494	0.09596	0.13531	0.23127	0.08829	0.06517	0.15345	—	499.062	499.062	0.02024	0.00405	0.00000	500.775
2028	0.49900	0.41579	3.59820	4.37552	0.00906	0.10839	0.00000	0.10839	0.09972	0.00000	0.09972	—	865.551	865.551	0.03511	0.00702	0.00000	868.521
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.06424	0.05410	0.43841	0.54332	0.00090	0.01751	0.02469	0.04221	0.01611	0.01189	0.02801	—	82.6254	82.6254	0.00335	0.00067	0.00000	82.9090
2028	0.09107	0.07588	0.65667	0.79853	0.00165	0.01978	0.00000	0.01978	0.01820	0.00000	0.01820	—	143.302	143.302	0.00581	0.00116	0.00000	143.794

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	0.09478	0.08680	0.76801	0.81275	0.00307	0.00307	0.14510	0.14817	0.00307	0.03729	0.04036	—	392.239	392.239	0.00497	0.05057	0.73670	408.170
2028	0.03805	0.03503	0.02212	0.35411	0.00000	0.00000	0.03953	0.03953	0.00000	0.00927	0.00927	—	44.4974	44.4974	0.00245	0.00167	0.15822	45.2158
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.09985	0.09014	0.35764	0.86379	0.00159	0.00168	0.13065	0.13232	0.00168	0.03231	0.03399	—	233.747	233.747	0.00767	0.02327	0.01774	240.889
2028	0.03573	0.03227	0.02838	0.30388	0.00000	0.00000	0.03953	0.03953	0.00000	0.00927	0.00927	—	40.6531	40.6531	0.00300	0.00178	0.00409	41.2639
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.02147	0.01948	0.06477	0.18623	0.00023	0.00023	0.02627	0.02650	0.00023	0.00639	0.00662	—	43.8833	43.8833	0.00161	0.00411	0.05438	45.2042
2028	0.00548	0.00499	0.00408	0.04664	0.00000	0.00000	0.00599	0.00599	0.00000	0.00140	0.00140	—	6.35129	6.35129	0.00043	0.00026	0.01047	6.44897
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00392	0.00356	0.01182	0.03399	0.00004	0.00004	0.00479	0.00484	0.00004	0.00117	0.00121	—	7.26539	7.26539	0.00027	0.00068	0.00900	7.48407
2028	0.00100	0.00091	0.00074	0.00851	0.00000	0.00000	0.00109	0.00109	0.00000	0.00026	0.00026	—	1.05153	1.05153	0.00007	0.00004	0.00173	1.06770

3. Construction Emissions Details

3.1. Clearing and Grubbing (2027)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41617	1.18998	10.4379	11.5743	0.01907	0.47275	—	0.47275	0.43493	—	0.43493	—	2,065.36	2,065.36	0.08378	0.01676	—	2,072.45

Dust From Material Movement	—	—	—	—	—	—	2.31751	2.31751	—	1.11141	1.11141	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03880	0.03260	0.28597	0.31710	0.00052	0.01295	—	0.01295	0.01192	—	0.01192	—	56.5853	56.5853	0.00230	0.00046	—	56.7795
Dust From Material Movement	—	—	—	—	—	—	0.06349	0.06349	—	0.03045	0.03045	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00708	0.00595	0.05219	0.05787	0.00010	0.00236	—	0.00236	0.00217	—	0.00217	—	9.36835	9.36835	0.00038	0.00008	—	9.40050
Dust From Material Movement	—	—	—	—	—	—	0.01159	0.01159	—	0.00556	0.00556	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06057	0.05588	0.03536	0.56943	0.00000	0.00000	0.05930	0.05930	0.00000	0.01390	0.01390	—	67.8753	67.8753	0.00367	0.00251	0.25347	68.9690
Vendor	0.00874	0.00768	0.41777	0.03970	0.00168	0.00168	0.03500	0.03668	0.00168	0.00994	0.01162	—	162.886	162.886	0.00009	0.02551	0.21133	170.702
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00151	0.00138	0.00116	0.01340	0.00000	0.00000	0.00161	0.00161	0.00000	0.00038	0.00038	—	1.72980	1.72980	0.00012	0.00007	0.00299	1.75762
Vendor	0.00024	0.00021	0.01190	0.00112	0.00005	0.00005	0.00095	0.00100	0.00005	0.00027	0.00032	—	4.46002	4.46002	< 0.000005	0.00070	0.00251	4.67016
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00028	0.00025	0.00021	0.00245	0.00000	0.00000	0.00029	0.00029	0.00000	0.00007	0.00007	—	0.28639	0.28639	0.00002	0.00001	0.00050	0.29099
Vendor	0.00004	0.00004	0.00217	0.00020	0.00001	0.00001	0.00017	0.00018	0.00001	0.00005	0.00006	—	0.73841	0.73841	< 0.000005	0.00012	0.00041	0.77320
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2. Grading (2027)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.63491	1.37378	12.1813	13.8677	0.02267	0.53897	—	0.53897	0.49585	—	0.49585	—	2,455.46	2,455.46	0.09960	0.01992	—	2,463.88

Dust From Material Movement	—	—	—	—	—	—	2.62117	2.62117	—	1.26724	1.26724	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04479	0.03764	0.33373	0.37994	0.00062	0.01477	—	0.01477	0.01358	—	0.01358	—	67.2728	67.2728	0.00273	0.00055	—	67.5037
Dust From Material Movement	—	—	—	—	—	—	0.07181	0.07181	—	0.03472	0.03472	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00817	0.00687	0.06091	0.06934	0.00011	0.00269	—	0.00269	0.00248	—	0.00248	—	11.1378	11.1378	0.00045	0.00009	—	11.1760
Dust From Material Movement	—	—	—	—	—	—	0.01311	0.01311	—	0.00634	0.00634	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08076	0.07451	0.04715	0.75923	0.00000	0.00000	0.07906	0.07906	0.00000	0.01853	0.01853	—	90.5004	90.5004	0.00489	0.00335	0.33796	91.9586
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01402	0.01229	0.72086	0.05352	0.00307	0.00307	0.06603	0.06911	0.00307	0.01876	0.02183	—	301.738	301.738	0.00007	0.04722	0.39874	316.211
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00202	0.00183	0.00154	0.01787	0.00000	0.00000	0.00214	0.00214	0.00000	0.00050	0.00050	—	2.30640	2.30640	0.00016	0.00010	0.00399	2.34349
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00038	0.00033	0.02061	0.00149	0.00008	0.00008	0.00179	0.00188	0.00008	0.00051	0.00059	—	8.26459	8.26459	< 0.000005	0.00129	0.00473	8.65430
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00037	0.00033	0.00028	0.00326	0.00000	0.00000	0.00039	0.00039	0.00000	0.00009	0.00009	—	0.38185	0.38185	0.00003	0.00002	0.00066	0.38799
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00007	0.00006	0.00376	0.00027	0.00002	0.00002	0.00033	0.00034	0.00002	0.00009	0.00011	—	1.36830	1.36830	< 0.000005	0.00021	0.00078	1.43282

3.3. Solar Canopy (2027)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.16707	0.97105	8.25338	9.90715	0.01942	0.26132	—	0.26132	0.24041	—	0.24041	—	1,800.91	1,800.91	0.07305	0.01461	—	1,807.09
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10506	0.08741	0.74297	0.89184	0.00175	0.02352	—	0.02352	0.02164	—	0.02164	—	162.117	162.117	0.00658	0.00132	—	162.674
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01917	0.01595	0.13559	0.16276	0.00032	0.00429	—	0.00429	0.00395	—	0.00395	—	26.8404	26.8404	0.00109	0.00022	—	26.9325
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Solar Canopy (2028)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	—	0.23087	0.21240	—	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	—	1,807.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.11538	0.92809	7.88994	9.87597	0.01943	0.23087	—	0.23087	0.21240	—	0.21240	—	1,801.31	1,801.31	0.07307	0.01461	—	1,807.49
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.42782	0.35598	3.02628	3.78804	0.00745	0.08855	—	0.08855	0.08147	—	0.08147	—	690.914	690.914	0.02803	0.00561	—	693.285
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07808	0.06497	0.55230	0.69132	0.00136	0.01616	—	0.01616	0.01487	—	0.01487	—	114.389	114.389	0.00464	0.00093	—	114.781
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Paving (2027)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54404	0.45646	4.29849	6.48965	0.00940	0.16865	—	0.16865	0.15516	—	0.15516	—	991.534	991.534	0.04022	0.00804	—	994.937
Paving	0.18340	0.18340	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03279	0.02751	0.25909	0.39116	0.00057	0.01017	—	0.01017	0.00935	—	0.00935	—	59.7637	59.7637	0.00242	0.00048	—	59.9688
Paving	0.01105	0.01105	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00598	0.00502	0.04728	0.07139	0.00010	0.00186	—	0.00186	0.00171	—	0.00171	—	9.89456	9.89456	0.00040	0.00008	—	9.92852
Paving	0.00202	0.00202	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09208	0.08343	0.07766	0.81103	0.00000	0.00000	0.09883	0.09883	0.00000	0.02316	0.02316	—	103.337	103.337	0.00749	0.00446	0.01094	104.865
Vendor	0.00777	0.00671	0.27998	0.05277	0.00159	0.00168	0.03182	0.03350	0.00168	0.00915	0.01082	—	130.409	130.409	0.00018	0.01880	0.00681	136.024
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00555	0.00505	0.00424	0.04914	0.00000	0.00000	0.00589	0.00589	0.00000	0.00138	0.00138	—	6.34260	6.34260	0.00044	0.00027	0.01098	6.44459
Vendor	0.00047	0.00041	0.01668	0.00313	0.00010	0.00010	0.00190	0.00200	0.00010	0.00055	0.00065	—	7.86411	7.86411	0.00001	0.00114	0.00683	8.21053
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00101	0.00092	0.00077	0.00897	0.00000	0.00000	0.00107	0.00107	0.00000	0.00025	0.00025	—	1.05009	1.05009	0.00007	0.00004	0.00182	1.06698
Vendor	0.00009	0.00007	0.00304	0.00057	0.00002	0.00002	0.00035	0.00037	0.00002	0.00010	0.00012	—	1.30199	1.30199	< 0.000005	0.00019	0.00113	1.35935
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Drainage Improvements (2027)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77904	0.65325	5.08729	6.49878	0.00964	0.22523	—	0.22523	0.20721	—	0.20721	—	999.338	999.338	0.04054	0.00811	—	1,002.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.77904	0.65325	5.08729	6.49878	0.00964	0.22523	—	0.22523	0.20721	—	0.20721	—	999.338	999.338	0.04054	0.00811	—	1,002.77
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11952	0.10022	0.78052	0.99707	0.00148	0.03456	—	0.03456	0.03179	—	0.03179	—	153.323	153.323	0.00622	0.00124	—	153.849
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02181	0.01829	0.14244	0.18197	0.00027	0.00631	—	0.00631	0.00580	—	0.00580	—	25.3844	25.3844	0.00103	0.00021	—	25.4715
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08076	0.07451	0.04715	0.75923	0.00000	0.00000	0.07906	0.07906	0.00000	0.01853	0.01853	—	90.5004	90.5004	0.00489	0.00335	0.33796	91.9586
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07367	0.06675	0.06213	0.64882	0.00000	0.00000	0.07906	0.07906	0.00000	0.01853	0.01853	—	82.6699	82.6699	0.00599	0.00357	0.00875	83.8921
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01130	0.01027	0.00864	0.10008	0.00000	0.00000	0.01199	0.01199	0.00000	0.00281	0.00281	—	12.9158	12.9158	0.00089	0.00055	0.02235	13.1235
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00206	0.00188	0.00158	0.01826	0.00000	0.00000	0.00219	0.00219	0.00000	0.00051	0.00051	—	2.13836	2.13836	0.00015	0.00009	0.00370	2.17275
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Electrical Point of Service (2028)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46393	0.38983	3.72770	3.82910	0.01051	0.12930	—	0.12930	0.11896	—	0.11896	—	1,138.26	1,138.26	0.04617	0.00923	—	1,142.16
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46393	0.38983	3.72770	3.82910	0.01051	0.12930	—	0.12930	0.11896	—	0.11896	—	1,138.26	1,138.26	0.04617	0.00923	—	1,142.16
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07118	0.05981	0.57192	0.58748	0.00161	0.01984	—	0.01984	0.01825	—	0.01825	—	174.637	174.637	0.00708	0.00142	—	175.236
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01299	0.01092	0.10438	0.10721	0.00029	0.00362	—	0.00362	0.00333	—	0.00333	—	28.9131	28.9131	0.00117	0.00023	—	29.0123
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03805	0.03503	0.02212	0.35411	0.00000	0.00000	0.03953	0.03953	0.00000	0.00927	0.00927	—	44.4974	44.4974	0.00245	0.00167	0.15822	45.2158
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03573	0.03227	0.02838	0.30388	0.00000	0.00000	0.03953	0.03953	0.00000	0.00927	0.00927	—	40.6531	40.6531	0.00300	0.00178	0.00409	41.2639
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00548	0.00499	0.00408	0.04664	0.00000	0.00000	0.00599	0.00599	0.00000	0.00140	0.00140	—	6.35129	6.35129	0.00043	0.00026	0.01047	6.44897
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00100	0.00091	0.00074	0.00851	0.00000	0.00000	0.00109	0.00109	0.00000	0.00026	0.00026	—	1.05153	1.05153	0.00007	0.00004	0.00173	1.06770
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Clearing and Grubbing	Site Preparation	7/1/2027	7/14/2027	5.00000	10.00000	—
Grading	Grading	7/15/2027	7/28/2027	5.00000	10.00000	—
Solar Canopy	Building Construction	11/16/2027	7/14/2028	5.00000	174.000	—

Paving	Paving	10/15/2027	11/15/2027	5.00000	22.0000	—
Drainage Improvements	Trenching	7/29/2027	10/14/2027	5.00000	56.0000	—
Electrical Point of Service	Trenching	7/17/2028	10/2/2028	5.00000	56.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Clearing and Grubbing	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Clearing and Grubbing	Rubber Tired Dozers	Diesel	Average	1.000000	7.00000	367.000	0.40000
Clearing and Grubbing	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	2.00000	7.00000	84.0000	0.37000
Solar Canopy	Cranes	Diesel	Average	1.000000	6.00000	367.000	0.29000
Solar Canopy	Forklifts	Diesel	Average	1.000000	6.00000	82.0000	0.20000
Solar Canopy	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Solar Canopy	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	6.00000	84.0000	0.37000
Solar Canopy	Welders	Diesel	Average	3.00000	8.00000	46.0000	0.45000
Paving	Cement and Mortar Mixers	Diesel	Average	1.000000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	6.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	1.000000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	1.000000	7.00000	36.0000	0.38000
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000

Drainage Improvements	Trenchers	Diesel	Average	1.000000	8.00000	40.0000	0.50000
Drainage Improvements	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Drainage Improvements	Pumps	Diesel	Average	1.000000	8.00000	11.0000	0.74000
Drainage Improvements	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Electrical Point of Service	Aerial Lifts	Diesel	Average	1.000000	8.00000	46.0000	0.31000
Electrical Point of Service	Cranes	Diesel	Average	1.000000	8.00000	367.000	0.29000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Clearing and Grubbing	Worker	7.50000	11.1900	LDA,LDT1,LDT2
Clearing and Grubbing	Vendor	4.00000	9.01000	HHDT
Clearing and Grubbing	Hauling	0.00000	20.0000	HHDT
Clearing and Grubbing	Onsite truck	—	—	HHDT
Grading	Worker	10.00000	11.1900	LDA,LDT1,LDT2
Grading	Vendor	—	9.01000	HHDT,MHDT
Grading	Hauling	3.40000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Solar Canopy	Worker	0.00000	11.1900	LDA,LDT1,LDT2
Solar Canopy	Vendor	0.00000	9.01000	HHDT,MHDT
Solar Canopy	Hauling	0.00000	20.0000	HHDT
Solar Canopy	Onsite truck	—	—	HHDT
Paving	Worker	12.5000	11.1900	LDA,LDT1,LDT2

Paving	Vendor	4.00000	9.01000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Drainage Improvements	Worker	10.00000	11.1900	LDA,LDT1,LDT2
Drainage Improvements	Vendor	—	9.01000	HHDT,MHDT
Drainage Improvements	Hauling	0.00000	20.0000	HHDT
Drainage Improvements	Onsite truck	—	—	HHDT
Electrical Point of Service	Worker	5.00000	11.1900	LDA,LDT1,LDT2
Electrical Point of Service	Vendor	—	9.01000	HHDT,MHDT
Electrical Point of Service	Hauling	0.00000	20.0000	HHDT
Electrical Point of Service	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Clearing and Grubbing	0.00000	0.00000	9.37500	0.00000	0.00000
Grading	0.00000	270.000	10.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	1.54000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	63%	63%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Parking Lot	1.54000	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	203.983	0.03300	0.00400
2028	0.00000	203.983	0.03300	0.00400

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Per the project description, the project consists of a transit yard featuring a solar canopy and electric vehicle charging stations with 31 parking stalls on 1.54 acres with 1,719 square feet of landscaping.
Construction: Construction Phases	Updated based on the applicant's construction timeline.
Construction: Off-Road Equipment	Assumption based on typical equipment used for Drainage Improvements, and Electrical Point of Service.
Construction: Trips and VMT	Added conservatively 4 additional vendor trips for Paving and Site Preparation.

8.3. Land Use

Model Parameter	Units	Default Value	New Value
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Lot Area	acre	0.27900	1.54000
Landscape Area	sq. ft	—	1,719.00
Special Landscape Area	sq. ft	—	0.00000

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Grading	Grading	Start Date	8/2/2027	7/15/2027
Grading	Grading	End Date	8/7/2027	7/28/2027
Grading	Grading	Work Days per Phase	4.00000	10.00000
Paving	Paving	Start Date	5/15/2028	10/15/2027
Paving	Paving	End Date	5/29/2028	11/15/2027
Paving	Paving	Work Days per Phase	10.00000	22.0000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Clearing and Grubbing	Vendor	One-Way Trips per Day	—	4.00000
Clearing and Grubbing	Vendor	Vehicle Mix	HHDT,MHDT	HHDT

Electric Vehicle Transit Yard Project

Construction Energy

Scenario: Unmitigated (5.2.1 / 5.3.1)

Sources

Field	Value
Project Name	Electric Vehicle Transit Yard Project
County	Mariposa
EMFAC Region	Mariposa
Construction Year	2027
CalEEMod Version	2022.1.1.43
CalEEMod workbook	Electric Vehicle Transit Yard Project.xlsx
EMFAC Annual CSV	EMFAC2025EI-EMFAC2007Class-Mariposa-2027-Annual-20260511133342.csv
Off-road sheet used	5.2.1
Vehicles sheet used	5.3.1
Off-Road BSFC (gal/bhp-hr)	0.054
Referenced CalEEMod Sections	5.1 Schedule; 5.2.x Off-Road; 5.3.x Construction Vehicles

Methods & Assumptions

- EMFAC Region: Mariposa; Construction Year: 2027.
- Off-road equipment fuel uses BSFC applied to $HP \times load \times hours \times work\ days\ by\ phase$ (liquid fuels in gallons; electric in kWh).
- On-road construction trips apply EMFAC fuel consumption factors (gal/mi) to allocated VMT (vehicles are liquid-only in this app; no EVMT/kWh/mi).
- Totals report liquid fuels in gallons and off-road electric in kWh.

Off-Road Equipment — Estimated Fuel Consumption

Phase Name	Equipment Type	Qty/Day	HP	Load Factor	Hours/Day	hp-hr/day	Work Days	Fuel	Est. gallons
Clearing and Grubbing	Graders	1	148	0.41	8	485	10	Diesel	262
	Rubber Tired Dozers	1	367	0.40	7	1,028	10	Diesel	555
	Tractors/Loaders/Backhoes	1	84	0.37	8	249	10	Diesel	134
Grading	Graders	1	148	0.41	8	485	10	Diesel	262
	Rubber Tired Dozers	1	367	0.40	8	1,174	10	Diesel	634
	Tractors/Loaders/Backhoes	2	84	0.37	7	435	10	Diesel	235
Solar Canopy	Cranes	1	367	0.29	6	639	174	Diesel	6,000
	Forklifts	1	82	0.20	6	98	174	Diesel	925
	Generator Sets	1	14	0.74	8	83	174	Diesel	779
	Tractors/Loaders/Backhoes	1	84	0.37	6	186	174	Diesel	1,752
	Welders	3	46	0.45	8	497	174	Diesel	4,668
Paving	Cement and Mortar Mixers	1	10	0.56	6	34	22	Diesel	40
	Pavers	1	81	0.42	6	204	22	Diesel	242
	Paving Equipment	1	89	0.36	8	256	22	Diesel	305
	Rollers	1	36	0.38	7	96	22	Diesel	114
	Tractors/Loaders/Backhoes	1	84	0.37	8	249	22	Diesel	295
Drainage Improvements	Trenchers	1	40	0.50	8	160	56	Diesel	484
	Excavators	1	36	0.38	8	109	56	Diesel	331
	Pumps	1	11	0.74	8	65	56	Diesel	197
	Graders	1	148	0.41	8	485	56	Diesel	1,468
Electrical Point of Service	Aerial Lifts	1	46	0.31	8	114	56	Diesel	345
	Cranes	1	367	0.29	8	851	56	Diesel	2,575
TOTAL									22,602

Sources: CalEEMod Section 5.1 (schedule) and CalEEMod Section 5.2 (equipment per phase, quantity/day, hours/day, horsepower, and load factor).

Notes: HP = horsepower; BSFC = Brake Specific Fuel Consumption. Fuel (gal) = Qty × HP × Load × Hours/Day → hp-hr/day × Work days × BSFC. A BSFC factor of 0.054 gal/bhp-hr corresponds to ~18.5 bhp-hr/gal (CARB-derived). Total Electricity (not shown per equipment): 0 kWh.

Estimated VMT and Fuel Consumption - On-Road Construction Trips

Phase Name	Trip Type	Vehicle Mix	Fuel	VMT	EMFAC gal/mi	Est. gallons
Clearing and Grubbing	Worker	LDA,LDT1,LDT2	Gasoline	839	0.0411	34
Clearing and Grubbing	Vendor	HHDT	Diesel	360	0.1814	65
Clearing and Grubbing	Hauling	HHDT	Diesel	0	0.1814	0
Clearing and Grubbing	Onsite Truck	HHDT	Diesel	0	0.1814	0
Grading	Worker	LDA,LDT1,LDT2	Gasoline	1,119	0.0411	46
Grading	Vendor	HHDT,MHDT	Diesel	0	0.1482	0
Grading	Hauling	HHDT	Diesel	680	0.1814	123
Grading	Onsite Truck	HHDT	Diesel	0	0.1814	0
Solar Canopy	Worker	LDA,LDT1,LDT2	Gasoline	0	0.0411	0
Solar Canopy	Vendor	HHDT,MHDT	Diesel	0	0.1482	0
Solar Canopy	Hauling	HHDT	Diesel	0	0.1814	0
Solar Canopy	Onsite Truck	HHDT	Diesel	0	0.1814	0
Paving	Worker	LDA,LDT1,LDT2	Gasoline	3,077	0.0411	126
Paving	Vendor	HHDT,MHDT	Diesel	793	0.1482	118
Paving	Hauling	HHDT	Diesel	0	0.1814	0
Paving	Onsite Truck	HHDT	Diesel	0	0.1814	0
Drainage Improvements	Worker	LDA,LDT1,LDT2	Gasoline	6,266	0.0411	257
Drainage Improvements	Vendor	HHDT,MHDT	Diesel	0	0.1482	0
Drainage Improvements	Hauling	HHDT	Diesel	0	0.1814	0
Drainage Improvements	Onsite Truck	HHDT	Diesel	0	0.1814	0
Electrical Point of Service	Worker	LDA,LDT1,LDT2	Gasoline	3,133	0.0411	129
Electrical Point of Service	Vendor	HHDT,MHDT	Diesel	0	0.1482	0
Electrical Point of Service	Hauling	HHDT	Diesel	0	0.1814	0
Electrical Point of Service	Onsite Truck	HHDT	Diesel	0	0.1814	0
TOTAL				16,268		899

Phase Name	Trip Type	Vehicle Mix	Fuel	VTM	EMFAC gal/mi	Est. gallons
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Sources: CalEEMod Section 5.1 (# of work days per phase) and CalEEMod Section 5.3 (trip type, vehicle mix, and VTM).

Notes: VTM = vehicle miles traveled; mpg = miles per gallon. VTM was derived as one-way trips per day × miles per one-way trip Estimated gallons for on-road trips: Fuel (gal) = VTM × EMFAC gal/mi. EMFAC gal/mi factors originate from CARB's EMFAC model for the applicable county and construction year.

EMFAC Fuel Consumption Rates by Vehicle Mix (County = Mariposa; Calendar Year=2027)

Vehicle Category	Diesel (gal/mi)	Gasoline (gal/mi)
HHDT	0.1814	—
MHDT	0.1151	—
LDA	—	0.0347
LDT1	—	0.0436
LDT2	—	0.0425

Notes: Fuel consumption from EMFAC2021v1.0.2

CalEEMod Vehicle Mix – EMFAC Rates

Vehicle Mix	Fuel	gal/mi
LDA,LDT1,LDT2	Gasoline	0.0411
HHDT,MHDT	Diesel	0.1482

Notes: Light-duty=25/50/25; Heavy-duty (HHDT,MHDT)=50/50.

Totals Summary

Metric	Value
Total estimated gallons — On-road	899
Total estimated gallons — Off-road (liquid fuels)	22,602
Total estimated kWh — Off-road (electric)	0
Grand total (reporting note)	Liquid fuels in gallons; electric in kWh
County (CalEEMod 1.1)	Mariposa
EMFAC Region	Mariposa
Year (from 1.1 Construction Start Date)	2027

Notes: Scenario codes shown above (e.g., 5.2.1/5.3.1 or 5.2.2/5.3.2).