
Appendix D

Technical Source Documentation for Emissions Calculations

Vista GP 2050 - Baseline v2 1 21 26 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vista GP 2050 - Baseline v2 1 21 26
Operational Year	2024
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.20000
Precipitation (days)	19.4000
Location	Vista, CA, USA
County	San Diego
City	Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6261
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.37

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
Mobile Home Park	1,801.00	Dwelling Unit	226.887	2,341,300	988,319	0.00000	25,121.0	High Density Residential (HD)

Single Family Housing	21,397.0	Dwelling Unit	6,947.08	41,724,150	20,948,448	0.00000	7,114.00	Low Density Residential (LD)
Apartments Low Rise	12,938.0	Dwelling Unit	808.625	13,714,280	3,522,371	0.00000	28,141.0	Medium Density Residential (MD)
Office Park	1,758.00	1000sqft	40.3581	1,758,000	351,527	0.00000	—	Commercial Office (CO)
Regional Shopping Center	5,184.00	1000sqft	119.008	5,184,000	1,036,742	0.00000	—	General Commercial (GC)
Manufacturing	2,897.00	1000sqft	66.5060	2,897,000	579,478	0.00000	—	Industrial General (IG)
Research & Development	11,316.0	1000sqft	259.780	11,316,000	2,263,194	0.00000	—	Research Light Industrial (RLI)

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	62,485.9	61,232.8	3,759.27	94,096.0	173.657	9,475.59	3,914.54	13,390.1	9,429.10	992.923	10,422.0	1,034,003	6,506,108	7,540,112	4,374.34	322.568	20,230.9	7,765,827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	62,029.4	60,789.5	3,962.12	90,454.0	171.400	9,472.91	3,914.54	13,387.4	9,427.08	992.923	10,420.0	1,034,003	6,283,021	7,317,024	4,397.49	335.994	1,972.23	7,529,060
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	17,918.2	17,444.6	2,677.27	35,077.9	67.9563	2,175.27	3,194.34	5,369.61	2,163.08	810.393	2,973.48	255,901	5,186,59	5,442,49	3,623.36	240.629	8,174.25	5,612.96
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,270.07	3,183.63	488.602	6,401.73	12.4020	396.986	582.967	979.953	394.763	147.897	542.659	42,367.4	858,700	901,068	599.889	39.8389	1,353.34	929,290

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4,048.21	3,775.74	2,292.19	22,654.4	47.6031	39.5258	3,914.54	3,954.06	36.9390	992.923	1,029.86	—	4,846,699	4,846,699	277.062	205.529	18,744.6	4,933,618
Area	58,396.7	57,436.6	1,108.08	71,226.8	123.820	9,407.77	—	9,407.77	9,363.86	—	9,363.86	1,003,559	427,746	1,431,306	926.320	72.0873	—	1,475,946
Energy	40.9578	20.4789	358.997	214.889	2.23406	28.2981	—	28.2981	28.2981	—	28.2981	—	1,144,952	1,144,952	82.1465	6.02794	—	1,148,802
Water	—	—	—	—	—	—	—	—	—	—	—	15,713.0	86,710.9	102,424	1,616.49	38.9239	—	154,436
Waste	—	—	—	—	—	—	—	—	—	—	—	14,731.1	0.00000	14,731.1	1,472.32	0.00000	—	51,539.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,486.23	1,486.23
Total	62,485.9	61,232.8	3,759.27	94,096.0	173.657	9,475.59	3,914.54	13,390.1	9,429.10	992.923	10,422.0	1,034,003	6,506,108	7,540,112	4,374.34	322.568	20,230.9	7,765,827
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3,952.93	3,670.82	2,523.13	21,974.4	45.4892	39.5584	3,914.54	3,954.09	36.9702	992.923	1,029.89	—	4,632,876	4,632,876	300.594	219.033	486.001	4,706,149
Area	58,035.6	57,098.2	1,079.99	68,264.7	123.676	9,405.05	—	9,405.05	9,361.81	—	9,361.81	1,003,559	418,481	1,422,041	925.932	72.0094	—	1,466,648
Energy	40.9578	20.4789	358.997	214.889	2.23406	28.2981	—	28.2981	28.2981	—	28.2981	—	1,144,952	1,144,952	82.1465	6.02794	—	1,148,802
Water	—	—	—	—	—	—	—	—	—	—	—	15,713.0	86,710.9	102,424	1,616.49	38.9239	—	154,436

Waste	—	—	—	—	—	—	—	—	—	—	—	14,731.1	0.00000	14,731.1	1,472.32	0.00000	—	51,539.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,486.23	1,486.23
Total	62,029.4	60,789.5	3,962.12	90,454.0	171.400	9,472.91	3,914.54	13,387.4	9,427.08	992.923	10,420.0	1,034,003	6,283,021	7,317,024	4,397.49	335.994	1,972.23	7,529,060
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3,253.61	3,022.32	2,061.79	18,066.1	37.8664	32.7135	3,194.34	3,227.05	30.5723	810.393	840.965	—	3,856,351	3,856,351	244.192	179.462	6,688.02	3,922,623
Area	14,623.6	14,401.8	256.479	16,796.9	27.8558	2,114.25	—	2,114.25	2,104.21	—	2,104.21	225,457	98,584.0	324,041	208.209	16.2159	—	334,079
Energy	40.9578	20.4789	358.997	214.889	2.23406	28.2981	—	28.2981	28.2981	—	28.2981	—	1,144,952	1,144,952	82.1465	6.02794	—	1,148,802
Water	—	—	—	—	—	—	—	—	—	—	—	15,713.0	86,710.9	102,424	1,616.49	38.9239	—	154,436
Waste	—	—	—	—	—	—	—	—	—	—	—	14,731.1	0.00000	14,731.1	1,472.32	0.00000	—	51,539.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,486.23	1,486.23
Total	17,918.2	17,444.6	2,677.27	35,077.9	67.9563	2,175.27	3,194.34	5,369.61	2,163.08	810.393	2,973.48	255,901	5,186,598	5,442,499	3,623.36	240.629	8,174.25	5,612,965
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	593.784	551.573	376.277	3,297.07	6.91062	5.97021	582.967	588.937	5.57944	147.897	153.476	—	638,463	638,463	40.4287	29.7119	1,107.28	649,435
Area	2,668.81	2,628.32	46.8074	3,065.44	5.08368	385.851	—	385.851	384.019	—	384.019	37,327.0	16,321.7	53,648.7	34.4713	2.68473	—	55,310.5
Energy	7.47480	3.73740	65.5169	39.2172	0.40772	5.16441	—	5.16441	5.16441	—	5.16441	—	189,560	189,560	13.6003	0.99799	—	190,197
Water	—	—	—	—	—	—	—	—	—	—	—	2,601.47	14,356.0	16,957.4	267.629	6.44429	—	25,568.6
Waste	—	—	—	—	—	—	—	—	—	—	—	2,438.91	0.00000	2,438.91	243.760	0.00000	—	8,532.90
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	246.062	246.062
Total	3,270.07	3,183.63	488.602	6,401.73	12.4020	396.986	582.967	979.953	394.763	147.897	542.659	42,367.4	858,700	901,068	599.889	39.8389	1,353.34	929,290

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	40.7850	37.8483	24.5474	243.884	0.52622	0.43303	43.4441	43.8772	0.40476	11.0196	11.4244	—	53,575.7	53,575.7	2.89143	2.19544	208.031	54,510.3
Single Family Housing	979.365	908.846	589.452	5,856.35	12.6360	10.3982	1,043.22	1,053.62	9.71940	264.613	274.332	—	1,286,507	1,286,507	69.4315	52.7189	4,995.42	1,308,948
Apartments Low Rise	521.301	483.765	313.756	3,117.25	6.72595	5.53479	555.289	560.824	5.17349	140.849	146.023	—	684,788	684,788	36.9573	28.0615	2,658.98	696,733
Office Park	163.408	150.988	103.312	1,030.52	2.26743	1.85373	187.731	189.585	1.73295	47.6181	49.3511	—	230,850	230,850	11.9262	9.22197	898.945	234,795
Regional Shopping Center	1,281.93	1,213.56	590.066	5,712.60	10.7195	9.26521	865.447	874.712	8.65210	219.521	228.173	—	1,091,498	1,091,498	78.3889	53.4303	4,144.16	1,113,524
Manufacturing	219.946	203.229	139.057	1,387.08	3.05194	2.49510	252.685	255.180	2.33253	64.0936	66.4262	—	310,722	310,722	16.0526	12.4127	1,209.97	316,033
Research & Development	841.470	777.511	532.003	5,306.67	11.6761	9.54575	966.720	976.266	8.92378	245.209	254.133	—	1,188,759	1,188,759	61.4139	47.4884	4,629.11	1,209,075
Total	4,048.21	3,775.74	2,292.19	22,654.4	47.6031	39.5258	3,914.54	3,954.06	36.9390	992.923	1,029.86	—	4,846,699	4,846,699	277.062	205.529	18,744.6	4,933,618
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	39.8555	36.8286	27.0109	234.174	0.50272	0.43334	43.4441	43.8775	0.40506	11.0196	11.4247	—	51,198.5	51,198.5	3.11937	2.33815	5.39372	51,978.6

Single Family Housing	957.046	884.360	648.609	5,623.19	12.0717	10.4058	1,043.22	1,053.62	9.72673	264.613	274.340	—	1,229,423	1,229,423	74.9051	56.1456	129.519	1,248,157
Apartments Low Rise	509.421	470.731	345.244	2,993.14	6.42556	5.53887	555.289	560.828	5.17739	140.849	146.027	—	654,403	654,403	39.8708	29.8855	68.9408	664,374
Office Park	159.788	147.030	113.649	981.866	2.16574	1.85497	187.731	189.586	1.73414	47.6181	49.3523	—	220,564	220,564	12.8083	9.81644	23.3074	223,833
Regional Shopping Center	1,248.91	1,176.84	650.416	5,764.29	10.2560	9.27643	865.447	874.723	8.66283	219.521	228.184	—	1,044,615	1,044,615	86.6946	57.0845	107.448	1,063,901
Manufacturing	215.074	197.901	152.971	1,321.58	2.91507	2.49678	252.685	255.182	2.33414	64.0936	66.4278	—	296,878	296,878	17.2399	13.2129	31.3716	301,278
Research & Development	822.828	757.130	585.235	5,056.11	11.1525	9.55216	966.720	976.272	8.92992	245.209	254.139	—	1,135,794	1,135,794	65.9562	50.5497	120.021	1,152,627
Total	3,952.93	3,670.82	2,523.13	21,974.4	45.4892	39.5584	3,914.54	3,954.09	36.9702	992.923	1,029.89	—	4,632,876	4,632,876	300.594	219.033	486.001	4,706,149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	6.94715	6.41805	4.70127	41.0725	0.08936	0.07645	7.57248	7.64894	0.07146	1.92111	1.99258	—	8,255.26	8,255.26	0.48872	0.37004	14.3831	8,392.13
Single Family Housing	168.640	155.797	114.122	997.025	2.16908	1.85591	183.820	185.676	1.73477	46.6345	48.3693	—	200,394	200,394	11.8635	8.98264	349.145	203,717
Apartments Low Rise	82.2093	75.9482	55.6326	486.033	1.05739	0.90472	89.6092	90.5140	0.84567	22.7335	23.5792	—	97,688.9	97,688.9	5.78327	4.37888	170.202	99,308.6
Office Park	21.4681	19.7480	15.2492	132.949	0.29665	0.25220	25.2151	25.4672	0.23577	6.39697	6.63273	—	27,405.8	27,405.8	1.54816	1.19760	47.8931	27,849.3
Regional Shopping Center	176.015	166.255	88.1902	782.250	1.38430	1.25386	114.072	115.326	1.17071	28.9397	30.1104	—	127,907	127,907	10.7569	7.05630	216.667	130,495

Manufac	26.8840	24.7300	19.0962	166.489	0.37148	0.31582	31.5762	31.8920	0.29524	8.01078	8.30602	—	34,319.6	34,319.6	1.93872	1.49972	59.9754	34,875.0
Research & Development	111.620	102.677	79.2859	691.251	1.54237	1.31125	131.102	132.413	1.22583	33.2601	34.4859	—	142,492	142,492	8.04941	6.22673	249.013	144,798
Total	593.784	551.573	376.277	3,297.07	6.91062	5.97021	582.967	588.937	5.57944	147.897	153.476	—	638,463	638,463	40.4287	29.7119	1,107.28	649,435

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	12,522.5	12,522.5	0.76543	0.09278	—	12,569.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	194,364	194,364	11.8804	1.44005	—	195,091
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	66,849.9	66,849.9	4.08617	0.49529	—	67,099.7
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	43,150.9	43,150.9	2.63758	0.31971	—	43,312.1
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	67,588.2	67,588.2	4.13130	0.50076	—	67,840.7
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	38,451.4	38,451.4	2.35032	0.28489	—	38,595.0

Research	—	—	—	—	—	—	—	—	—	—	—	—	277,756	277,756	16.9777	2.05791	—	278,794
Total	—	—	—	—	—	—	—	—	—	—	—	—	700,684	700,684	42.8290	5.19139	—	703,301
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	12,522.5	12,522.5	0.76543	0.09278	—	12,569.2
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	194,364	194,364	11.8804	1.44005	—	195,091
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	66,849.9	66,849.9	4.08617	0.49529	—	67,099.7
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	43,150.9	43,150.9	2.63758	0.31971	—	43,312.1
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	67,588.2	67,588.2	4.13130	0.50076	—	67,840.7
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	38,451.4	38,451.4	2.35032	0.28489	—	38,595.0
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	277,756	277,756	16.9777	2.05791	—	278,794
Total	—	—	—	—	—	—	—	—	—	—	—	—	700,684	700,684	42.8290	5.19139	—	703,301
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	2,073.24	2,073.24	0.12673	0.01536	—	2,080.98
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	32,179.3	32,179.3	1.96694	0.23842	—	32,299.5

Apartments	—	—	—	—	—	—	—	—	—	—	—	—	11,067.8	11,067.8	0.67651	0.08200	—	11,109.1
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	7,144.13	7,144.13	0.43668	0.05293	—	7,170.82
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	11,190.0	11,190.0	0.68398	0.08291	—	11,231.8
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	6,366.06	6,366.06	0.38912	0.04717	—	6,389.84
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	45,985.7	45,985.7	2.81086	0.34071	—	46,157.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	116,006	116,006	7.09083	0.85949	—	116,440

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	1.25608	0.62804	10.7338	4.56758	0.06851	0.86784	—	0.86784	0.86784	—	0.86784	—	13,624.7	13,624.7	1.20578	0.02565	—	13,662.5
Single Family Housing	18.0283	9.01416	154.060	65.5575	0.98336	12.4559	—	12.4559	12.4559	—	12.4559	—	195,553	195,553	17.3063	0.36822	—	196,095
Apartments Low Rise	5.18561	2.59280	44.3134	18.8568	0.28285	3.58278	—	3.58278	3.58278	—	3.58278	—	56,248.1	56,248.1	4.97794	0.10591	—	56,404.2
Office Park	1.66334	0.83167	15.1213	12.7019	0.09073	1.14922	—	1.14922	1.14922	—	1.14922	—	18,042.2	18,042.2	1.59673	0.03397	—	18,092.2

Regional	0.66282	0.33141	6.02560	5.06151	0.03615	0.45795	—	0.45795	0.45795	—	0.45795	—	7,189.55	7,189.55	0.63627	0.01354	—	7,209.49
Manufacturing	3.45498	1.72749	31.4089	26.3835	0.18845	2.38707	—	2.38707	2.38707	—	2.38707	—	37,476.0	37,476.0	3.31661	0.07057	—	37,580.0
Research & Development	10.7067	5.35334	97.3335	81.7601	0.58400	7.39734	—	7.39734	7.39734	—	7.39734	—	116,135	116,135	10.2779	0.21868	—	116,457
Total	40.9578	20.4789	358.997	214.889	2.23406	28.2981	—	28.2981	28.2981	—	28.2981	—	444,268	444,268	39.3176	0.83654	—	445,501
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	1.25608	0.62804	10.7338	4.56758	0.06851	0.86784	—	0.86784	0.86784	—	0.86784	—	13,624.7	13,624.7	1.20578	0.02565	—	13,662.5
Single Family Housing	18.0283	9.01416	154.060	65.5575	0.98336	12.4559	—	12.4559	12.4559	—	12.4559	—	195,553	195,553	17.3063	0.36822	—	196,095
Apartments Low Rise	5.18561	2.59280	44.3134	18.8568	0.28285	3.58278	—	3.58278	3.58278	—	3.58278	—	56,248.1	56,248.1	4.97794	0.10591	—	56,404.2
Office Park	1.66334	0.83167	15.1213	12.7019	0.09073	1.14922	—	1.14922	1.14922	—	1.14922	—	18,042.2	18,042.2	1.59673	0.03397	—	18,092.2
Regional Shopping Center	0.66282	0.33141	6.02560	5.06151	0.03615	0.45795	—	0.45795	0.45795	—	0.45795	—	7,189.55	7,189.55	0.63627	0.01354	—	7,209.49
Manufacturing	3.45498	1.72749	31.4089	26.3835	0.18845	2.38707	—	2.38707	2.38707	—	2.38707	—	37,476.0	37,476.0	3.31661	0.07057	—	37,580.0
Research & Development	10.7067	5.35334	97.3335	81.7601	0.58400	7.39734	—	7.39734	7.39734	—	7.39734	—	116,135	116,135	10.2779	0.21868	—	116,457
Total	40.9578	20.4789	358.997	214.889	2.23406	28.2981	—	28.2981	28.2981	—	28.2981	—	444,268	444,268	39.3176	0.83654	—	445,501
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile Home Park	0.22924	0.11462	1.95892	0.83358	0.01250	0.15838	—	0.15838	0.15838	—	0.15838	—	2,255.73	2,255.73	0.19963	0.00425	—	2,261.98
Single Family Housing	3.29017	1.64508	28.1160	11.9643	0.17946	2.27321	—	2.27321	2.27321	—	2.27321	—	32,376.0	32,376.0	2.86526	0.06096	—	32,465.8
Apartments Low Rise	0.94637	0.47319	8.08719	3.44136	0.05162	0.65386	—	0.65386	0.65386	—	0.65386	—	9,312.52	9,312.52	0.82415	0.01754	—	9,338.35
Office Park	0.30356	0.15178	2.75963	2.31809	0.01656	0.20973	—	0.20973	0.20973	—	0.20973	—	2,987.09	2,987.09	0.26436	0.00562	—	2,995.38
Regional Shopping Center	0.12096	0.06048	1.09967	0.92373	0.00660	0.08358	—	0.08358	0.08358	—	0.08358	—	1,190.31	1,190.31	0.10534	0.00224	—	1,193.61
Manufacturing	0.63053	0.31527	5.73212	4.81498	0.03439	0.43564	—	0.43564	0.43564	—	0.43564	—	6,204.58	6,204.58	0.54910	0.01168	—	6,221.79
Research & Development	1.95397	0.97698	17.7634	14.9212	0.10658	1.35002	—	1.35002	1.35002	—	1.35002	—	19,227.5	19,227.5	1.70162	0.03620	—	19,280.8
Total	7.47480	3.73740	65.5169	39.2172	0.40772	5.16441	—	5.16441	5.16441	—	5.16441	—	73,553.7	73,553.7	6.50947	0.13850	—	73,757.7

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO ₂	PM ₁₀ E	PM ₁₀ D	PM ₁₀ T	PM _{2.5} E	PM _{2.5} D	PM _{2.5} T	BCO ₂	NBCO ₂	CO ₂ T	CH ₄	N ₂ O	R	CO ₂ e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	56,220.4	55,283.1	1,079.99	68,264.7	123.676	9,405.05	—	9,405.05	9,361.81	—	9,361.81	1,003,559	418,481	1,422,041	925.932	72.0094	—	1,466,648

Consumer	1,689.20	1,689.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	125.953	125.953	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	361.186	338.361	28.0859	2,962.03	0.14381	2.71137	—	2.71137	2.04840	—	2.04840	—	9,264.87	9,264.87	0.38783	0.07795	—	9,297.80
Total	58,396.7	57,436.6	1,108.08	71,226.8	123.820	9,407.77	—	9,407.77	9,363.86	—	9,363.86	1,003,559	427,746	1,431,306	926.320	72.0873	—	1,475,946
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	56,220.4	55,283.1	1,079.99	68,264.7	123.676	9,405.05	—	9,405.05	9,361.81	—	9,361.81	1,003,559	418,481	1,422,041	925.932	72.0094	—	1,466,648
Consumer Products	1,689.20	1,689.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	125.953	125.953	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	58,035.6	57,098.2	1,079.99	68,264.7	123.676	9,405.05	—	9,405.05	9,361.81	—	9,361.81	1,003,559	418,481	1,422,041	925.932	72.0094	—	1,466,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2,305.04	2,266.61	44.2796	2,798.85	5.07074	385.607	—	385.607	383.834	—	383.834	37,327.0	15,565.3	52,892.3	34.4397	2.67836	—	54,551.4
Consumer Products	308.280	308.280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	22.9864	22.9864	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	32.5067	30.4525	2.52774	266.583	0.01294	0.24402	—	0.24402	0.18436	—	0.18436	—	756.446	756.446	0.03167	0.00636	—	759.135
Total	2,668.81	2,628.32	46.8074	3,065.44	5.08368	385.851	—	385.851	384.019	—	384.019	37,327.0	16,321.7	53,648.7	34.4713	2.68473	—	55,310.5

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	121.249	778.801	900.050	12.4803	0.30117	—	1,301.81
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1,440.52	10,572.6	12,013.1	148.355	3.58784	—	16,791.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	871.028	5,081.83	5,952.86	89.6246	2.15972	—	8,837.07
Office Park	—	—	—	—	—	—	—	—	—	—	—	598.739	3,187.32	3,786.06	61.5887	1.48231	—	5,767.51
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	735.819	3,987.99	4,723.81	75.6936	1.82221	—	7,159.16
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,283.75	6,813.44	8,097.19	132.050	3.17805	—	12,345.5
Research & Development	—	—	—	—	—	—	—	—	—	—	—	10,662.0	56,288.9	66,950.8	1,096.70	26.3926	—	102,233

Total	—	—	—	—	—	—	—	—	—	—	—	15,713.0	86,710.9	102,424	1,616.49	38.9239	—	154,436
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	121.249	778.801	900.050	12.4803	0.30117	—	1,301.81
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	1,440.52	10,572.6	12,013.1	148.355	3.58784	—	16,791.1
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	871.028	5,081.83	5,952.86	89.6246	2.15972	—	8,837.07
Office Park	—	—	—	—	—	—	—	—	—	—	—	598.739	3,187.32	3,786.06	61.5887	1.48231	—	5,767.51
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	735.819	3,987.99	4,723.81	75.6936	1.82221	—	7,159.16
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,283.75	6,813.44	8,097.19	132.050	3.17805	—	12,345.5
Research & Development	—	—	—	—	—	—	—	—	—	—	—	10,662.0	56,288.9	66,950.8	1,096.70	26.3926	—	102,233
Total	—	—	—	—	—	—	—	—	—	—	—	15,713.0	86,710.9	102,424	1,616.49	38.9239	—	154,436
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	20.0742	128.939	149.014	2.06626	0.04986	—	215.529
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	238.494	1,750.41	1,988.91	24.5618	0.59401	—	2,779.97
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	144.209	841.356	985.564	14.8384	0.35757	—	1,463.08

Office Park	—	—	—	—	—	—	—	—	—	—	—	99.1281	527.697	626.825	10.1967	0.24541	—	954.876
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	121.823	660.257	782.080	12.5319	0.30169	—	1,185.28
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	212.539	1,128.04	1,340.58	21.8624	0.52616	—	2,043.94
Research & Development	—	—	—	—	—	—	—	—	—	—	—	1,765.21	9,319.27	11,084.5	181.571	4.36959	—	16,925.9
Total	—	—	—	—	—	—	—	—	—	—	—	2,601.47	14,356.0	16,957.4	267.629	6.44429	—	25,568.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	3,588.32	0.00000	3,588.32	358.640	0.00000	—	12,554.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	908.945	0.00000	908.945	90.8457	0.00000	—	3,180.09
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4,019.70	0.00000	4,019.70	401.755	0.00000	—	14,063.6
Office Park	—	—	—	—	—	—	—	—	—	—	—	881.133	0.00000	881.133	88.0660	0.00000	—	3,082.78

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2,933.55	0.00000	2,933.55	293.198	0.00000	—	10,263.5
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,936.02	0.00000	1,936.02	193.498	0.00000	—	6,773.47
Research & Development	—	—	—	—	—	—	—	—	—	—	—	463.453	0.00000	463.453	46.3205	0.00000	—	1,621.47
Total	—	—	—	—	—	—	—	—	—	—	—	14,731.1	0.00000	14,731.1	1,472.32	0.00000	—	51,539.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	3,588.32	0.00000	3,588.32	358.640	0.00000	—	12,554.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	908.945	0.00000	908.945	90.8457	0.00000	—	3,180.09
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4,019.70	0.00000	4,019.70	401.755	0.00000	—	14,063.6
Office Park	—	—	—	—	—	—	—	—	—	—	—	881.133	0.00000	881.133	88.0660	0.00000	—	3,082.78
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2,933.55	0.00000	2,933.55	293.198	0.00000	—	10,263.5
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,936.02	0.00000	1,936.02	193.498	0.00000	—	6,773.47
Research & Development	—	—	—	—	—	—	—	—	—	—	—	463.453	0.00000	463.453	46.3205	0.00000	—	1,621.47
Total	—	—	—	—	—	—	—	—	—	—	—	14,731.1	0.00000	14,731.1	1,472.32	0.00000	—	51,539.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	594.087	0.00000	594.087	59.3769	0.00000	—	2,078.51
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	150.486	0.00000	150.486	15.0405	0.00000	—	526.500
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	665.507	0.00000	665.507	66.5151	0.00000	—	2,328.38
Office Park	—	—	—	—	—	—	—	—	—	—	—	145.882	0.00000	145.882	14.5803	0.00000	—	510.390
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	485.683	0.00000	485.683	48.5423	0.00000	—	1,699.24
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	320.530	0.00000	320.530	32.0358	0.00000	—	1,121.43
Research & Development	—	—	—	—	—	—	—	—	—	—	—	76.7300	0.00000	76.7300	7.66889	0.00000	—	268.452
Total	—	—	—	—	—	—	—	—	—	—	—	2,438.91	0.00000	2,438.91	243.760	0.00000	—	8,532.90

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.7684	16.7684

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	298.829	298.829
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	98.2217	98.2217
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.27546	4.27546
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.8864	24.8864
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	754.102	754.102
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	289.145	289.145
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,486.23	1,486.23
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.7684	16.7684
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	298.829	298.829
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	98.2217	98.2217
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.27546	4.27546

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24.8864	24.8864
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	754.102	754.102
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	289.145	289.145
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,486.23	1,486.23
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.77620	2.77620
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.4745	49.4745
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.2617	16.2617
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.70785	0.70785
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.12023	4.12023
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	124.850	124.850
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47.8713	47.8713
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	246.062	246.062

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Mobile Home Park	9,005.00	8,302.61	7,636.24	3,178,829	61,507.9	56,710.3	52,158.7	21,712,736
Single Family Housing	213,970	216,236	193,797	77,165,320	1,461,505	1,476,982	1,323,714	527,071,463
Apartments Low Rise	103,504	115,099	88,798.7	37,616,780	706,976	786,175	606,532	256,938,368
Office Park	35,160.0	5,208.95	2,413.91	9,564,192	265,789	39,376.6	18,247.7	72,299,618
Regional Shopping Center	259,200	316,670	144,877	91,643,551	897,383	1,225,294	560,574	327,080,890
Manufacturing	28,970.0	47,325.1	37,521.1	11,977,015	218,996	357,750	283,637	90,539,126
Research & Development	181,056	30,550.9	17,848.7	49,727,582	1,368,676	230,947	134,926	375,911,018

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Mobile Home Park	Wood Fireplaces	630	630
Mobile Home Park	Gas Fireplaces	991	991
Mobile Home Park	Propane Fireplaces	0	0
Mobile Home Park	Electric Fireplaces	0	0
Mobile Home Park	No Fireplaces	180	180
Mobile Home Park	Conventional Wood Stoves	0	0
Mobile Home Park	Catalytic Wood Stoves	90	90
Mobile Home Park	Non-Catalytic Wood Stoves	90	90
Mobile Home Park	Pellet Wood Stoves	0	0

Single Family Housing	Wood Fireplaces	7,489	7,489
Single Family Housing	Gas Fireplaces	11,768	11,768
Single Family Housing	Propane Fireplaces	0	0
Single Family Housing	Electric Fireplaces	0	0
Single Family Housing	No Fireplaces	2,140	2,140
Single Family Housing	Conventional Wood Stoves	0	0
Single Family Housing	Catalytic Wood Stoves	1,070	1,070
Single Family Housing	Non-Catalytic Wood Stoves	1,070	1,070
Single Family Housing	Pellet Wood Stoves	0	0
Apartments Low Rise	Wood Fireplaces	4,528	4,528
Apartments Low Rise	Gas Fireplaces	7,116	7,116
Apartments Low Rise	Propane Fireplaces	0	0
Apartments Low Rise	Electric Fireplaces	0	0
Apartments Low Rise	No Fireplaces	1,294	1,294
Apartments Low Rise	Conventional Wood Stoves	0	0
Apartments Low Rise	Catalytic Wood Stoves	647	647
Apartments Low Rise	Non-Catalytic Wood Stoves	647	647
Apartments Low Rise	Pellet Wood Stoves	0	0
Office Park	Wood Fireplaces	0	0
Office Park	Gas Fireplaces	0	0
Office Park	Propane Fireplaces	0	0
Office Park	Electric Fireplaces	0	0
Office Park	No Fireplaces	0	0
Office Park	Conventional Wood Stoves	0	0
Office Park	Catalytic Wood Stoves	0	0
Office Park	Non-Catalytic Wood Stoves	0	0
Office Park	Pellet Wood Stoves	0	0
Regional Shopping Center	Wood Fireplaces	0	0

Regional Shopping Center	Gas Fireplaces	0	0
Regional Shopping Center	Propane Fireplaces	0	0
Regional Shopping Center	Electric Fireplaces	0	0
Regional Shopping Center	No Fireplaces	0	0
Regional Shopping Center	Conventional Wood Stoves	0	0
Regional Shopping Center	Catalytic Wood Stoves	0	0
Regional Shopping Center	Non-Catalytic Wood Stoves	0	0
Regional Shopping Center	Pellet Wood Stoves	0	0
Manufacturing	Wood Fireplaces	0	0
Manufacturing	Gas Fireplaces	0	0
Manufacturing	Propane Fireplaces	0	0
Manufacturing	Electric Fireplaces	0	0
Manufacturing	No Fireplaces	0	0
Manufacturing	Conventional Wood Stoves	0	0
Manufacturing	Catalytic Wood Stoves	0	0
Manufacturing	Non-Catalytic Wood Stoves	0	0
Manufacturing	Pellet Wood Stoves	0	0
Research & Development	Wood Fireplaces	0	0
Research & Development	Gas Fireplaces	0	0
Research & Development	Propane Fireplaces	0	0
Research & Development	Electric Fireplaces	0	0
Research & Development	No Fireplaces	0	0
Research & Development	Conventional Wood Stoves	0	0
Research & Development	Catalytic Wood Stoves	0	0
Research & Development	Non-Catalytic Wood Stoves	0	0
Research & Development	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
117,003,953	39,001,318	31,732,500	10,577,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Mobile Home Park	8,466,117	539.881	0.0330	0.0040	42,512,761
Single Family Housing	131,404,916	539.881	0.0330	0.0040	610,176,820
Apartments Low Rise	45,195,564	539.881	0.0330	0.0040	175,509,290
Office Park	29,173,248	539.881	0.0330	0.0040	56,296,480
Regional Shopping Center	45,694,672	539.881	0.0330	0.0040	22,433,327
Manufacturing	25,995,995	539.881	0.0330	0.0040	116,935,258
Research & Development	187,784,117	539.881	0.0330	0.0040	362,372,563

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Mobile Home Park	63,274,668	18,051,734
Single Family Housing	751,742,406	382,625,266

Apartments Low Rise	454,551,724	64,336,420
Office Park	312,455,929	5,253,277
Regional Shopping Center	383,991,951	15,493,242
Manufacturing	669,931,250	8,659,814
Research & Development	5,564,008,707	33,821,542

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Mobile Home Park	6,658.12	0.00000
Single Family Housing	1,686.55	0.00000
Apartments Low Rise	7,458.55	0.00000
Office Park	1,634.94	0.00000
Regional Shopping Center	5,443.20	0.00000
Manufacturing	3,592.28	0.00000
Research & Development	859.937	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088.00	0.00225	2.50000	2.50000	10.00000
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430.00	0.11538	0.60000	0.00000	1.000000
Office Park	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Office Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
Research & Development	Household refrigerators and/or freezers	R-134a	1,430.00	0.45455	0.60000	0.00000	1.000000
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00230	4.00000	4.00000	18.0000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.16000	annual days of extreme heat

Extreme Precipitation	3.90000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	12.3300	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
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Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	—
AQ-PM	—
AQ-DPM	—
Drinking Water	—
Lead Risk Housing	—
Pesticides	—
Toxic Releases	—
Traffic	—

Effect Indicators	—
CleanUp Sites	—
Groundwater	—
Haz Waste Facilities/Generators	—
Impaired Water Bodies	—
Solid Waste	—
Sensitive Population	—
Asthma	—
Cardio-vascular	—
Low Birth Weights	—
Socioeconomic Factor Indicators	—
Education	—
Housing	—
Linguistic	—
Poverty	—
Unemployment	—

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—

Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	—
Asthma ER Admissions	—
High Blood Pressure	—
Cancer (excluding skin)	—
Asthma	—
Coronary Heart Disease	—
Chronic Obstructive Pulmonary Disease	—
Diagnosed Diabetes	—

Life Expectancy at Birth	—
Cognitively Disabled	—
Physically Disabled	—
Heart Attack ER Admissions	—
Mental Health Not Good	—
Chronic Kidney Disease	—
Obesity	—
Pedestrian Injuries	—
Physical Health Not Good	—
Stroke	—
Health Risk Behaviors	—
Binge Drinking	—
Current Smoker	—
No Leisure Time for Physical Activity	—
Climate Change Exposures	—
Wildfire Risk	—
SLR Inundation Area	—
Children	—
Elderly	—
English Speaking	—
Foreign-born	—
Outdoor Workers	—
Climate Change Adaptive Capacity	—
Impervious Surface Cover	—
Traffic Density	—
Traffic Access	—
Other Indices	—
Hardship	—

Other Decision Support	—
2016 Voting	—

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	—
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Land Use	Based on existing built environment, year 2024.
Operations: Vehicle Data	Based on SANDAG trip rates

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Landscape Area	sq. ft	—	988,319
Special Landscape Area	sq. ft	—	0.00000
Population	people	5,025.00	25,121.0
Landscape Area	sq. ft	250,620,001	20,948,448
Special Landscape Area	sq. ft	—	0.00000
Population	people	59,698.0	7,114.00
Landscape Area	sq. ft	—	3,522,371
Special Landscape Area	sq. ft	—	0.00000
Population	people	36,097.0	28,141.0

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Mobile Home Park	Saturday Trip Rate	size/day	4.61000	4.61000
Mobile Home Park	Sunday Trip Rate	size/day	4.24000	4.24000
Single Family Housing	Weekday Trip Rate	size/day	9.44000	10.00000
Single Family Housing	Saturday Trip Rate	size/day	9.54000	10.1059
Single Family Housing	Sunday Trip Rate	size/day	8.55000	9.05720
Apartments Low Rise	Weekday Trip Rate	size/day	7.32000	8.00000
Apartments Low Rise	Saturday Trip Rate	size/day	8.14000	8.89620
Apartments Low Rise	Sunday Trip Rate	size/day	6.28000	6.86340
Office Park	Weekday Trip Rate	size/day	11.0700	20.0000
Office Park	Saturday Trip Rate	size/day	1.64000	2.96300

Office Park	Sunday Trip Rate	size/day	0.76000	1.37310
Regional Shopping Center	Weekday Trip Rate	size/day	37.7500	50.0000
Regional Shopping Center	Saturday Trip Rate	size/day	46.1200	61.0861
Regional Shopping Center	Sunday Trip Rate	size/day	21.1000	27.9470
Manufacturing	Weekday Trip Rate	size/day	3.93000	10.00000
Manufacturing	Saturday Trip Rate	size/day	6.42000	16.3359
Manufacturing	Sunday Trip Rate	size/day	5.09000	12.9517
Research & Development	Weekday Trip Rate	size/day	11.2600	16.0000
Research & Development	Saturday Trip Rate	size/day	1.90000	2.69980
Research & Development	Sunday Trip Rate	size/day	1.11000	1.57730

Plan Duration	Start year
Number of years	2026
Total Number of Years	24

Notes

Reviewed the approach of annual average based on total years

CalEEMod Land Use Input

Land Use Subtype		Building SF	Landscape SF
	2050 Plan	2050 Plan	2050 Plan
Apartments High Rise	8,883	8,527,680	624,102
Single Family Housing	2,470	4,816,500	28,930,757
Apartments Low Rise	9,971	10,569,260	2,714,605
Condo/Townhouse	5,474	5,802,440	1,490,297
Single Family Housing	8,217	16,023,150	96,244,546
Apartments Mid Rise	12,513	12,012,480	1,434,385
Condo/Townhouse High Rise	9,533	9,151,680	648,839
Single Family Housing	24	46,800	281,109
Single Family Housing	2,397	4,674,150	28,075,718
Office Park	866	866,000	173,210
Automobile Care Center	518	518,000	103,509
Regional Shopping Center	8,456	8,456,000	1,691,233
Manufacturing	2,897	2,897,000	579,478
Strip Mall	242	242,000	48,449
Strip Mall	519	519,000	103,812
Convenience Market (24 hour)	2,230	2,230,000	446,045
Research & Development	12,091	12,091,000	2,418,251

Average Year based on buildout to 2050 starting in 2026

Land Use Subtype		Building SF	Landscape SF
	2050 Plan	2050 Plan	2050 Plan
Apartments High Rise	370	355,320	26,004
Single Family Housing	103	200,688	1,205,448
Apartments Low Rise	415	440,386	113,109
Condo/Townhouse	228	241,768	62,096
Single Family Housing	342	667,631	4,010,189
Apartments Mid Rise	521	500,520	59,766
Condo/Townhouse High Rise	397	381,320	27,035
Single Family Housing	1	1,950	11,713
Single Family Housing	100	194,756	1,169,822
Office Park	36	36,083	7,217
Automobile Care Center	22	21,583	4,313
Regional Shopping Center	352	352,333	70,468
Manufacturing	121	120,708	24,145
Strip Mall	10	10,083	2,019
Strip Mall	22	21,625	4,326
Convenience Market (24 hour)	93	92,917	18,585
Research & Development	504	503,792	100,760

CalEEMod Base Schedule for Buildout (base on land use quantities)

5. Activity Data

5.1 Construction Schedule

Phase Name	Phase Type	Days Per Week	Work Days per Phase
Demolition	Demolition	5	300
Site Preparation	Site Preparation	5	180
Grading	Grading	5	465
Building Construction	Building Construction	5	4650
Paving	Paving	5	330
Architectural Coating	Architectural Coating	5	330

Total Duration of Construction:

Years

CalEEMod Adjusted Schedule for Buildout in 1 Year

5. Activity Data

5.1 Construction Schedule

Phase Name	Phase Type	Days Per Week	Work Days per Phase	
Demolition	Demolition	5	12.50	Set to 12 in CalEEMod to achieve 1 year
Site Preparation	Site Preparation	5	7.50	
Grading	Grading	5	19.38	
Building Construction	Building Construction	5	193.75	
Paving	Paving	5	13.75	
Architectural Coating	Architectural Coating	5	13.75	
			261	

CalEEMod Base Construction Equipment for Buildout (base on land use quantities)

5.2. Off-Road Equipment

5.2.1 Unmitigated

Phase Name	Equipment Type	Number per Day	Hours Per Day	Horsepower	Load Factor
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Demolition	Rubber Tired Dozers	2	8	367	0.4
Demolition	Excavators	3	8	36	0.38
Demolition	Concrete/Industrial Saws	1	8	33	0.73
Site Preparation	Rubber Tired Dozers	3	8	367	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Graders	1	8	148	0.41
Grading	Excavators	2	8	36	0.38
Grading	Tractors/Loaders/Backhoes	2	8	84	0.37
Grading	Scrapers	2	8	423	0.48
Grading	Rubber Tired Dozers	1	8	367	0.4
Building Construction	Forklifts	3	8	82	0.2
Building Construction	Generator Sets	1	8	14	0.74
Building Construction	Cranes	1	7	367	0.29
Building Construction	Welders	1	8	46	0.45
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37
Paving	Pavers	2	8	81	0.42
Paving	Paving Equipment	2	8	89	0.36
Paving	Rollers	2	8	36	0.38
Architectural Coating	Air Compressors	1	6	37	0.48

CalEEMod Adjusted Construction Equipment for Buildout in 1 Year

5.2. Off-Road Equipment

5.2.1 Unmitigated

		(Base x 24)			
Phase Name	Equipment Type	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	48	8	367	0.4
Demolition	Excavators	72	8	36	0.38
Demolition	Concrete/Industrial Saws	24	8	33	0.73
Site Preparation	Rubber Tired Dozers	72	8	367	0.4
Site Preparation	Tractors/Loaders/Backhoes	96	8	84	0.37
Grading	Graders	24	8	148	0.41
Grading	Excavators	48	8	36	0.38
Grading	Tractors/Loaders/Backhoes	48	8	84	0.37
Grading	Scrapers	48	8	423	0.48
Grading	Rubber Tired Dozers	24	8	367	0.4
Building Construction	Forklifts	72	8	82	0.2
Building Construction	Generator Sets	24	8	14	0.74
Building Construction	Cranes	24	7	367	0.29
Building Construction	Welders	24	8	46	0.45
Building Construction	Tractors/Loaders/Backhoes	72	7	84	0.37
Paving	Pavers	48	8	81	0.42
Paving	Paving Equipment	48	8	89	0.36
Paving	Rollers	48	8	36	0.38
Architectural Coating	Air Compressors	24	6	37	0.48

CalEEMod Base Construction Vehicle Trips for Buildout (base on land use quantities)

5.3. Construction Vehicles

5.3.1 Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip
Demolition	Worker	15	
Demolition	Vendor		
Demolition	Hauling	0	
Demolition	Onsite truck		
Site Preparation	Worker	18	
Site Preparation	Vendor		
Site Preparation	Hauling	0	
Site Preparation	Onsite truck		
Grading	Worker	20	
Grading	Vendor		
Grading	Hauling	0	
Grading	Onsite truck		
Building Construction	Worker	1970	
Building Construction	Vendor	455	
Building Construction	Hauling	0	
Building Construction	Onsite truck		
Paving	Worker	15	
Paving	Vendor		
Paving	Hauling	0	
Paving	Onsite truck		
Architectural Coating	Worker	394	
Architectural Coating	Vendor		
Architectural Coating	Hauling	0	
Architectural Coating	Onsite truck		

CalEEMod Adjusted Construction Vehicle Trips for Buildout in 1 Year

5.3. Construction Vehicles

5.3.1 Unmitigated

(Base x 24)

Phase Name	Trip Type	One-Way Trips per Day	
Demolition	Worker	360	
Demolition	Vendor	96	Estimated: 4 Trips per Base x 24 scaling factor
Demolition	Hauling	0	
Demolition	Onsite truck		
Site Preparation	Worker	420	
Site Preparation	Vendor	96	Estimated: 4 Trips per Base x 24 scaling factor
Site Preparation	Hauling	0	
Site Preparation	Onsite truck		
Grading	Worker	480	
Grading	Vendor	96	Estimated: 4 Trips per Base x 24 scaling factor
Grading	Hauling	0	
Grading	Onsite truck		
Building Construction	Worker	47284	
Building Construction	Vendor	10918	
Building Construction	Hauling	0	
Building Construction	Onsite truck		
Paving	Worker	360	
Paving	Vendor	96	Estimated: 4 Trips per Base x 24 scaling factor
Paving	Hauling	0	
Paving	Onsite truck		
Architectural Coating	Worker	9457	
Architectural Coating	Vendor		
Architectural Coating	Hauling	0	
Architectural Coating	Onsite truck		

Vista GP 2050 Construction Avg Year Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vista GP 2050 Construction Avg Year
Construction Start Date	1/1/2026
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.20000
Precipitation (days)	19.4000
Location	Vista, CA, USA
County	San Diego
City	Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6261
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.37

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
Apartments High Rise	370.000	Dwelling Unit	5.96774	355,200	26,004.0	0.00000	24,976.0	High Density Residential (HD)

Single Family Housing	103.000	Dwelling Unit	33.4416	200,850	1,206,424	0.00000	7,111.00	Low Density Residential (LD)
Apartments Low Rise	415.000	Dwelling Unit	25.9375	439,900	113,109	0.00000	28,103.0	Medium Density Residential (MD)
Condo/Townhouse	228.000	Dwelling Unit	14.2500	241,680	62,096.0	0.00000	15,367.0	Medium High Density Residential (MHD)
Single Family Housing	342.000	Dwelling Unit	111.039	666,900	4,005,797	0.00000	23,374.0	Single Family
Apartments Mid Rise	521.000	Dwelling Unit	13.7105	500,160	59,765.0	0.00000	36,163.0	Mixed-Use MU-C
Condo/Townhouse High Rise	397.000	Dwelling Unit	6.20313	381,120	27,035.0	0.00000	27,551.0	Mixed-Use MU-G
Single Family Housing	1.000000	Dwelling Unit	0.32468	1,950.00	11,713.0	0.00000	70.0000	Open Space Residential (OSR)
Single Family Housing	100.0000	Dwelling Unit	32.4675	195,000	1,171,286	0.00000	6,191.00	Rural Residential (RR)
Office Park	36.0000	1000sqft	0.82645	36,000.0	7,217.00	0.00000	—	Commercial Office (CO)
Automobile Care Center	22.0000	1000sqft	0.50505	22,000.0	4,313.00	0.00000	—	Commercial Services (CS)
Regional Shopping Center	352.000	1000sqft	8.08081	352,000	70,468.0	0.00000	—	General Commercial (GC)
Manufacturing	121.000	1000sqft	2.77778	121,000	24,145.0	0.00000	—	Industrial General (IG)
Strip Mall	10.00000	1000sqft	0.22957	10,000.00	2,019.00	0.00000	—	Mixed-Use MU-C
Strip Mall	22.0000	1000sqft	0.50505	22,000.0	4,326.00	0.00000	—	Mixed-Use MU-G
Convenience Market (24 hour)	93.0000	1000sqft	2.13499	93,000.0	18,585.0	0.00000	—	Neighborhood Commercial (CN)
City Park	0.00000	Acre	0.00000	0.00000	0.00000	0.00000	—	Open Space (OS)
Research & Development	504.000	1000sqft	11.5702	504,000	100,759	0.00000	—	Research Light Industrial (RLI)

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	250.978	205.810	713.152	2,517.88	2.39807	12.7608	469.770	482.530	12.0338	113.040	125.074	—	765,240	765,240	33.3858	54.7285	2,192.04	784,576
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,758.26	1,754.32	743.797	2,279.65	2.39807	29.8526	475.935	505.787	27.4670	243.461	270.928	—	740,958	740,958	34.4283	55.7710	56.9612	758,496
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	202.135	182.502	468.000	1,310.99	1.41888	9.82268	272.104	281.927	9.19342	70.0519	79.2453	—	415,079	415,079	19.1258	29.9645	509.850	424,997
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	36.8896	33.3066	85.4100	239.255	0.25895	1.79264	49.6590	51.4516	1.67780	12.7845	14.4623	—	68,721.1	68,721.1	3.16649	4.96096	84.4115	70,363.1

2.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	250.978	205.810	713.152	2,517.88	2.39807	12.7608	469.770	482.530	12.0338	113.040	125.074	—	765,240	765,240	33.3858	54.7285	2,192.04	784,576

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1,758.26	1,754.32	743.797	2,279.65	2.39807	29.8526	475.935	505.787	27.4670	243.461	270.928	—	740,958	740,958	34.4283	55.7710	56.9612	758,496
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	202.135	182.502	468.000	1,310.99	1.41888	9.82268	272.104	281.927	9.19342	70.0519	79.2453	—	415,079	415,079	19.1258	29.9645	509.850	424,997
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	36.8896	33.3066	85.4100	239.255	0.25895	1.79264	49.6590	51.4516	1.67780	12.7845	14.4623	—	68,721.1	68,721.1	3.16649	4.96096	84.4115	70,363.1

3. Construction Emissions Details

3.1. Demolition (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	65.3977	54.8818	495.637	456.134	0.78064	20.2341	—	20.2341	18.6154	—	18.6154	—	82,238.2	82,238.2	3.33594	0.66719	—	82,520.5
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—
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	2.15006	1.80433	16.2949	14.9962	0.02566	0.66523	—	0.66523	0.61201	—	0.61201	—	2,703.72	2,703.72	0.10967	0.02193	—	2,713.00
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—
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	0.39239	0.32929	2.97382	2.73680	0.00468	0.12140	—	0.12140	0.11169	—	0.11169	—	447.632	447.632	0.01816	0.00363	—	449.168
Demolition	—	—	—	—	—	—	0.00000	0.00000	—	0.00000	0.00000	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.41201	1.28526	1.12486	13.7285	0.00000	0.00000	3.04461	3.04461	0.00000	0.71365	0.71365	—	3,160.09	3,160.09	0.16643	0.12675	0.30431	3,202.32
Vendor	0.18288	0.07674	3.16151	1.45340	0.01615	0.03230	0.61441	0.64671	0.03230	0.16975	0.20205	—	2,359.68	2,359.68	0.08999	0.33990	0.14941	2,463.37
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	0.04590	0.04173	0.03672	0.45575	0.00000	0.00000	0.09885	0.09885	0.00000	0.02315	0.02315	—	104.822	104.822	0.00547	0.00417	0.16615	106.367
Vendor	0.00608	0.00259	0.10311	0.04709	0.00053	0.00106	0.01999	0.02105	0.00106	0.00553	0.00659	—	77.5516	77.5516	0.00296	0.01117	0.08199	81.0377
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	0.00838	0.00762	0.00670	0.08317	0.00000	0.00000	0.01804	0.01804	0.00000	0.00423	0.00423	—	17.3545	17.3545	0.00091	0.00069	0.02751	17.6102
Vendor	0.00111	0.00047	0.01882	0.00859	0.00010	0.00019	0.00365	0.00384	0.00019	0.00101	0.00120	—	12.8396	12.8396	0.00049	0.00185	0.01357	13.4167

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
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3.3. Site Preparation (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	89.7951	75.4528	699.925	691.396	1.17370	29.8203	—	29.8203	27.4347	—	27.4347	—	127,151	127,151	5.15778	1.03156	—	127,587
Dust From Material Movement	—	—	—	—	—	—	471.768	471.768	—	242.459	242.459	—	—	—	—	—	—	—
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	1.96811	1.65376	15.3408	15.1539	0.02572	0.65360	—	0.65360	0.60131	—	0.60131	—	2,786.86	2,786.86	0.11305	0.02261	—	2,796.43
Dust From Material Movement	—	—	—	—	—	—	10.3401	10.3401	—	5.31416	5.31416	—	—	—	—	—	—	—
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	0.35918	0.30181	2.79970	2.76559	0.00469	0.11928	—	0.11928	0.10974	—	0.10974	—	461.397	461.397	0.01872	0.00374	—	462.980
Dust From Material Movement	—	—	—	—	—	—	1.88707	1.88707	—	0.96983	0.96983	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.64734	1.49947	1.31234	16.0166	0.00000	0.00000	3.55205	3.55205	0.00000	0.83259	0.83259	—	3,686.77	3,686.77	0.19417	0.14787	0.35503	3,736.04
Vendor	0.18288	0.07674	3.16151	1.45340	0.01615	0.03230	0.61441	0.64671	0.03230	0.16975	0.20205	—	2,359.68	2,359.68	0.08999	0.33990	0.14941	2,463.37
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	0.03570	0.03246	0.02856	0.35447	0.00000	0.00000	0.07688	0.07688	0.00000	0.01801	0.01801	—	81.5281	81.5281	0.00426	0.00324	0.12923	82.7296
Vendor	0.00405	0.00173	0.06874	0.03139	0.00035	0.00071	0.01333	0.01403	0.00071	0.00369	0.00439	—	51.7011	51.7011	0.00197	0.00745	0.05466	54.0251
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	0.00652	0.00592	0.00521	0.06469	0.00000	0.00000	0.01403	0.01403	0.00000	0.00329	0.00329	—	13.4979	13.4979	0.00070	0.00054	0.02140	13.6968
Vendor	0.00074	0.00032	0.01254	0.00573	0.00006	0.00013	0.00243	0.00256	0.00013	0.00067	0.00080	—	8.55971	8.55971	0.00033	0.00123	0.00905	8.94448
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. Grading (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	86.9427	73.0560	653.406	661.696	1.46236	26.9130	—	26.9130	24.7599	—	24.7599	—	158,366	158,366	6.42401	1.28480	—	158,909
Dust From Material Movement	—	—	—	—	—	—	220.886	220.886	—	87.6901	87.6901	—	—	—	—	—	—	—
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	4.52579	3.80292	34.0129	34.4444	0.07612	1.40095	—	1.40095	1.28887	—	1.28887	—	8,243.70	8,243.70	0.33440	0.06688	—	8,271.99
Dust From Material Movement	—	—	—	—	—	—	11.4982	11.4982	—	4.56469	4.56469	—	—	—	—	—	—	—
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	0.82596	0.69403	6.20736	6.28611	0.01389	0.25567	—	0.25567	0.23522	—	0.23522	—	1,364.84	1,364.84	0.05536	0.01107	—	1,369.52
Dust From Material Movement	—	—	—	—	—	—	2.09842	2.09842	—	0.83306	0.83306	—	—	—	—	—	—	—

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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.88268	1.71368	1.49981	18.3046	0.00000	0.00000	4.05948	4.05948	0.00000	0.95154	0.95154	—	4,213.45	4,213.45	0.22191	0.16900	0.40575	4,269.76
Vendor	0.18288	0.07674	3.16151	1.45340	0.01615	0.03230	0.61441	0.64671	0.03230	0.16975	0.20205	—	2,359.68	2,359.68	0.08999	0.33990	0.14941	2,463.37
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	0.09690	0.08810	0.07752	0.96214	0.00000	0.00000	0.20868	0.20868	0.00000	0.04887	0.04887	—	221.291	221.291	0.01155	0.00880	0.35076	224.552
Vendor	0.00963	0.00410	0.16325	0.07455	0.00084	0.00168	0.03165	0.03333	0.00168	0.00875	0.01043	—	122.790	122.790	0.00468	0.01769	0.12982	128.310
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	0.01768	0.01608	0.01415	0.17559	0.00000	0.00000	0.03808	0.03808	0.00000	0.00892	0.00892	—	36.6372	36.6372	0.00191	0.00146	0.05807	37.1771
Vendor	0.00176	0.00075	0.02979	0.01361	0.00015	0.00031	0.00578	0.00608	0.00031	0.00160	0.00190	—	20.3293	20.3293	0.00078	0.00293	0.02149	21.2431
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. Building Construction (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm ent	30.7184	25.7042	236.496	311.193	0.56153	9.08770	—	9.08770	8.36068	—	8.36068	—	57,533.8	57,533.8	2.33382	0.46676	—	57,731.2
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 Equipm ent	30.7184	25.7042	236.496	311.193	0.56153	9.08770	—	9.08770	8.36068	—	8.36068	—	57,533.8	57,533.8	2.33382	0.46676	—	57,731.2
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 Equipm ent	16.3270	13.6620	125.699	165.401	0.29846	4.83017	—	4.83017	4.44376	—	4.44376	—	30,579.6	30,579.6	1.24044	0.24809	—	30,684.5
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 Equipm ent	2.97968	2.49331	22.9401	30.1857	0.05447	0.88151	—	0.88151	0.81099	—	0.81099	—	5,062.80	5,062.80	0.20537	0.04107	—	5,080.17
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	198.980	170.897	131.096	2,044.13	0.00000	0.00000	399.893	399.893	0.00000	93.7342	93.7342	—	439,506	439,506	20.8174	15.6052	1,538.10	446,215
Vendor	21.2803	9.20921	345.560	162.557	1.83655	3.67309	69.8769	73.5500	3.67309	19.3058	22.9789	—	268,201	268,201	10.2346	38.6565	653.939	280,630

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	185.459	168.812	147.744	1,803.16	0.00000	0.00000	399.893	399.893	0.00000	93.7342	93.7342	—	415,060	415,060	21.8598	16.6477	39.9693	420,607
Vendor	20.7989	8.72781	359.556	165.294	1.83655	3.67309	69.8769	73.5500	3.67309	19.3058	22.9789	—	268,365	268,365	10.2346	38.6565	16.9919	280,157
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	97.4648	88.6165	77.9730	967.745	0.00000	0.00000	209.898	209.898	0.00000	49.1584	49.1584	—	222,579	222,579	11.6187	8.84835	352.802	225,859
Vendor	11.1827	4.76682	189.571	86.5755	0.97614	1.95227	36.7503	38.7026	1.95227	10.1637	12.1160	—	142,588	142,588	5.43976	20.5462	150.755	148,998
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	17.7873	16.1725	14.2301	176.613	0.00000	0.00000	38.3063	38.3063	0.00000	8.97140	8.97140	—	36,850.5	36,850.5	1.92360	1.46495	58.4103	37,393.5
Vendor	2.04085	0.86995	34.5968	15.8000	0.17814	0.35629	6.70693	7.06322	0.35629	1.85488	2.21117	—	23,607.1	23,607.1	0.90061	3.40166	24.9591	24,668.3
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

3.9. Paving (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	21.7310	18.2601	170.837	238.513	0.33474	7.67678	—	7.67678	7.06263	—	7.06263	—	36,254.2	36,254.2	1.47063	0.29413	—	36,378.6
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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 Equipm ent	0.83352	0.70039	6.55266	9.14844	0.01284	0.29445	—	0.29445	0.27090	—	0.27090	—	1,390.57	1,390.57	0.05641	0.01128	—	1,395.34
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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 Equipm ent	0.15212	0.12782	1.19586	1.66959	0.00234	0.05374	—	0.05374	0.04944	—	0.04944	—	230.225	230.225	0.00934	0.00187	—	231.015
Paving	0.00000	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.41201	1.28526	1.12486	13.7285	0.00000	0.00000	3.04461	3.04461	0.00000	0.71365	0.71365	—	3,160.09	3,160.09	0.16643	0.12675	0.30431	3,202.32
Vendor	0.18288	0.07674	3.16151	1.45340	0.01615	0.03230	0.61441	0.64671	0.03230	0.16975	0.20205	—	2,359.68	2,359.68	0.08999	0.33990	0.14941	2,463.37
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	0.05355	0.04869	0.04284	0.53171	0.00000	0.00000	0.11532	0.11532	0.00000	0.02701	0.02701	—	122.292	122.292	0.00638	0.00486	0.19384	124.094
Vendor	0.00710	0.00302	0.12029	0.05494	0.00062	0.00124	0.02332	0.02456	0.00124	0.00645	0.00769	—	90.4769	90.4769	0.00345	0.01304	0.09566	94.5440
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	0.00977	0.00889	0.00782	0.09704	0.00000	0.00000	0.02105	0.02105	0.00000	0.00493	0.00493	—	20.2469	20.2469	0.00106	0.00080	0.03209	20.5452
Vendor	0.00129	0.00055	0.02195	0.01003	0.00011	0.00023	0.00426	0.00448	0.00023	0.00118	0.00140	—	14.9795	14.9795	0.00057	0.00216	0.01584	15.6528
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

3.11. Architectural Coating (2026) - 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
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.49376	2.88740	20.5548	27.1879	0.04142	0.55568	—	0.55568	0.51123	—	0.51123	—	3,204.11	3,204.11	0.12997	0.02599	—	3,215.10
Architectural Coatings	1,717.67	1,717.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.13401	0.11075	0.78840	1.04282	0.00159	0.02131	—	0.02131	0.01961	—	0.01961	—	122.897	122.897	0.00499	0.00100	—	123.319
Architectural Coatings	65.8833	65.8833	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.02446	0.02021	0.14388	0.19031	0.00029	0.00389	—	0.00389	0.00358	—	0.00358	—	20.3470	20.3470	0.00083	0.00017	—	20.4169
Architectural Coatings	12.0237	12.0237	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	37.0927	33.7631	29.5495	360.640	0.00000	0.00000	79.9802	79.9802	0.00000	18.7472	18.7472	—	83,013.7	83,013.7	4.37206	3.32960	7.99403	84,123.2
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	1.40674	1.27903	1.12541	13.9677	0.00000	0.00000	3.02952	3.02952	0.00000	0.70952	0.70952	—	3,212.55	3,212.55	0.16770	0.12771	5.09209	3,259.89
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	0.25673	0.23342	0.20539	2.54911	0.00000	0.00000	0.55289	0.55289	0.00000	0.12949	0.12949	—	531.874	531.874	0.02776	0.02114	0.84305	539.712
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

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/18/2026	5.00000	12.0000	—
Site Preparation	Site Preparation	1/19/2026	1/28/2026	5.00000	8.00000	—
Grading	Grading	1/29/2026	2/24/2026	5.00000	19.0000	—
Building Construction	Building Construction	2/25/2026	11/23/2026	5.00000	194.000	—
Paving	Paving	11/24/2026	12/11/2026	5.00000	14.0000	—
Architectural Coating	Architectural Coating	12/12/2026	12/31/2026	5.00000	14.0000	—

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
Demolition	Rubber Tired Dozers	Diesel	Average	48.0000	8.00000	367.000	0.40000
Demolition	Excavators	Diesel	Average	72.0000	8.00000	36.0000	0.38000
Demolition	Concrete/Industrial Saws	Diesel	Average	24.0000	8.00000	33.0000	0.73000
Site Preparation	Rubber Tired Dozers	Diesel	Average	72.0000	8.00000	367.000	0.40000

Site Preparation	Tractors/Loaders/Back	Diesel	Average	96.0000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	24.0000	8.00000	148.000	0.41000
Grading	Excavators	Diesel	Average	48.0000	8.00000	36.0000	0.38000
Grading	Tractors/Loaders/Back hoes	Diesel	Average	48.0000	8.00000	84.0000	0.37000
Grading	Scrapers	Diesel	Average	48.0000	8.00000	423.000	0.48000
Grading	Rubber Tired Dozers	Diesel	Average	24.0000	8.00000	367.000	0.40000
Building Construction	Forklifts	Diesel	Average	72.0000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	24.0000	8.00000	14.0000	0.74000
Building Construction	Cranes	Diesel	Average	24.0000	7.00000	367.000	0.29000
Building Construction	Welders	Diesel	Average	24.0000	8.00000	46.0000	0.45000
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	72.0000	7.00000	84.0000	0.37000
Paving	Pavers	Diesel	Average	48.0000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	48.0000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	48.0000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	24.0000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	360.000	11.9700	LDA,LDT1,LDT2
Demolition	Vendor	96.0000	7.63000	HHDT,MHDT
Demolition	Hauling	0.00000	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	420.000	11.9700	LDA,LDT1,LDT2
Site Preparation	Vendor	96.0000	7.63000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	480.000	11.9700	LDA,LDT1,LDT2
Grading	Vendor	96.0000	7.63000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	47,284.0	11.9700	LDA,LDT1,LDT2
Building Construction	Vendor	10,918.0	7.63000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	360.000	11.9700	LDA,LDT1,LDT2
Paving	Vendor	96.0000	7.63000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	9,457.00	11.9700	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	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

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	6,040,089	2,013,363	1,740,000	580,000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	—	0.00000
Site Preparation	—	—	288.000	0.00000	0.00000
Grading	—	—	1,368.00	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	6.01653

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Apartments High Rise	—	0%
Paving	Single Family Housing	1.13499	0%
Paving	Apartments Low Rise	—	0%
Paving	Condo/Townhouse	—	0%
Paving	Single Family Housing	3.76860	0%
Paving	Apartments Mid Rise	—	0%
Paving	Condo/Townhouse High Rise	—	0%
Paving	Single Family Housing	0.01102	0%
Paving	Single Family Housing	1.10193	0%
Paving	Office Park	0.00000	0%
Paving	Automobile Care Center	0.00000	0%
Paving	Regional Shopping Center	0.00000	0%
Paving	Manufacturing	0.00000	0%
Paving	Strip Mall	0.00000	0%
Paving	Strip Mall	0.00000	0%
Paving	Convenience Market (24 hour)	0.00000	0%

Paving	City Park	0.00000	0%
Paving	Research & Development	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00000	588.983	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.16000	annual days of extreme heat
Extreme Precipitation	3.90000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	12.3300	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.5731
AQ-PM	34.8102
AQ-DPM	67.7785
Drinking Water	25.2654

Lead Risk Housing	62.6465
Pesticides	46.0000
Toxic Releases	15.4289
Traffic	52.2000
Effect Indicators	—
CleanUp Sites	32.1948
Groundwater	0.00000
Haz Waste Facilities/Generators	37.6837
Impaired Water Bodies	43.7841
Solid Waste	0.00000
Sensitive Population	—
Asthma	33.3250
Cardio-vascular	40.1919
Low Birth Weights	39.8897
Socioeconomic Factor Indicators	—
Education	62.6803
Housing	32.7123
Linguistic	40.4385
Poverty	63.2412
Unemployment	22.5664

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	20.09495701
Employed	15.8475555
Median HI	24.6888233

Education	—
Bachelor's or higher	14.74400103
High school enrollment	100
Preschool enrollment	4.106249198
Transportation	—
Auto Access	52.9449506
Active commuting	27.42204543
Social	—
2-parent households	14.59001668
Voting	35.17259079
Neighborhood	—
Alcohol availability	12.13909919
Park access	55.83215706
Retail density	82.44578468
Supermarket access	87.70691646
Tree canopy	26.12601052
Housing	—
Homeownership	25.25343257
Housing habitability	49.49313486
Low-inc homeowner severe housing cost burden	60.43885538
Low-inc renter severe housing cost burden	83.42101886
Uncrowded housing	35.53188759
Health Outcomes	—
Insured adults	12.03644296
Arthritis	50.5
Asthma ER Admissions	44.3
High Blood Pressure	84.3
Cancer (excluding skin)	80.0

Asthma	12.1
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	11.3
Diagnosed Diabetes	39.3
Life Expectancy at Birth	44.2
Cognitively Disabled	23.2
Physically Disabled	65.4
Heart Attack ER Admissions	65.5
Mental Health Not Good	7.6
Chronic Kidney Disease	55.3
Obesity	19.4
Pedestrian Injuries	54.5
Physical Health Not Good	17.6
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	22.7
Current Smoker	5.1
No Leisure Time for Physical Activity	17.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	20.9
Elderly	97.2
English Speaking	9.4
Foreign-born	55.6
Outdoor Workers	15.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.3

Traffic Density	72.0
Traffic Access	60.3
Other Indices	—
Hardship	63.0
Other Decision Support	—
2016 Voting	50.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0000
Healthy Places Index Score for Project Location (b)	18.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
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Land Use	Based on plan specific data. Average Year based on buildout to 2050 starting in 2026. Total land use values divided by 24 years. Construction only analysis.
Construction: Construction Phases	Compressed schedule to represent average year of construction.
Construction: Off-Road Equipment	Default equipment increased by a factor of 24 to account for compressed construction schedule.
Construction: Trips and VMT	Scaled up by 24 to account for compressed construction schedule
Operations: Vehicle Data	Based on SANDAG trip rates

8.3. Land Use

Model Parameter	Units	Default Value	New Value
Landscape Area	sq. ft	—	26,004.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	1,032.00	24,976.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	287.000	7,111.00
Landscape Area	sq. ft	—	113,109
Special Landscape Area	sq. ft	—	0.00000
Population	people	1,158.00	28,103.0
Landscape Area	sq. ft	—	62,096.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	636.000	15,367.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	954.000	23,374.0
Landscape Area	sq. ft	—	59,765.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	1,454.00	36,163.0
Landscape Area	sq. ft	—	27,035.0
Special Landscape Area	sq. ft	—	0.00000
Population	people	1,108.00	27,551.0

Special Landscape Area	sq. ft	—	0.00000
Population	people	3.00000	70.0000
Special Landscape Area	sq. ft	—	0.00000
Population	people	279.000	6,191.00

8.4. Construction

8.4.1. Construction Phases

Phase Type	Phase Name	Model Parameter	Default Value	New Value
Demolition	Demolition	End Date	2/25/2027	1/18/2026
Demolition	Demolition	Work Days per Phase	300.000	12.0000
Site Preparation	Site Preparation	Start Date	2/26/2027	1/19/2026
Site Preparation	Site Preparation	End Date	11/5/2027	1/28/2026
Site Preparation	Site Preparation	Work Days per Phase	180.000	8.00000
Grading	Grading	Start Date	11/6/2027	1/29/2026
Grading	Grading	End Date	8/18/2029	2/24/2026
Grading	Grading	Work Days per Phase	465.000	19.0000
Building Construction	Building Construction	Start Date	8/19/2029	2/25/2026
Building Construction	Building Construction	End Date	6/16/2047	11/23/2026
Building Construction	Building Construction	Work Days per Phase	4,650.00	194.000
Paving	Paving	Start Date	6/17/2047	11/24/2026
Paving	Paving	End Date	9/21/2048	12/11/2026
Paving	Paving	Work Days per Phase	330.000	14.0000
Architectural Coating	Architectural Coating	Start Date	9/22/2048	12/12/2026
Architectural Coating	Architectural Coating	End Date	12/28/2049	12/31/2026
Architectural Coating	Architectural Coating	Work Days per Phase	330.000	14.0000

8.4.2. Off-Road Equipment

Phase Name	Equipment Type	Model Parameter	Default Value	New Value
Demolition	Rubber Tired Dozers	Number per Day	2.00000	48.0000
Demolition	Excavators	Number per Day	3.00000	72.0000
Demolition	Concrete/Industrial Saws	Number per Day	1.000000	24.0000
Site Preparation	Rubber Tired Dozers	Number per Day	3.00000	72.0000
Site Preparation	Tractors/Loaders/Backhoes	Number per Day	4.00000	96.0000
Grading	Graders	Number per Day	1.000000	24.0000
Grading	Excavators	Number per Day	2.00000	48.0000
Grading	Tractors/Loaders/Backhoes	Number per Day	2.00000	48.0000
Grading	Scrapers	Number per Day	2.00000	48.0000
Grading	Rubber Tired Dozers	Number per Day	1.000000	24.0000
Building Construction	Forklifts	Number per Day	3.00000	72.0000
Building Construction	Generator Sets	Number per Day	1.000000	24.0000
Building Construction	Cranes	Number per Day	1.000000	24.0000
Building Construction	Welders	Number per Day	1.000000	24.0000
Building Construction	Tractors/Loaders/Backhoes	Number per Day	3.00000	72.0000
Paving	Pavers	Number per Day	2.00000	48.0000
Paving	Paving Equipment	Number per Day	2.00000	48.0000
Paving	Rollers	Number per Day	2.00000	48.0000
Architectural Coating	Air Compressors	Number per Day	1.000000	24.0000

8.4.6. Trips and VMT

Phase Name	Trip Type	Model Parameter	Default Value	New Value
Building Construction	Worker	One-Way Trips per Day	1,970.18	47,284.0
Building Construction	Vendor	One-Way Trips per Day	454.915	10,918.0
Architectural Coating	Worker	One-Way Trips per Day	394.036	9,457.00

Vista GP 2050 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vista GP 2050
Operational Year	2050
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	19.4
Location	Vista, CA, USA
County	San Diego
City	Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6261
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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
Apartments High Rise	8,883	Dwelling Unit	143	8,527,680	624,102	0.00	24,976	High Density Residential (HD)

Single Family Housing	2,470	Dwelling Unit	802	4,816,500	28,930,757	0.00	7,111	Low Density Residential (LD)
Apartments Low Rise	9,971	Dwelling Unit	623	10,569,260	2,714,605	0.00	28,103	Medium Density Residential (MD)
Condo/Townhouse	5,474	Dwelling Unit	342	5,802,440	1,490,297	0.00	15,367	Medium High Density Residential (MHD)
Single Family Housing	8,217	Dwelling Unit	2,668	16,023,150	96,244,546	0.00	23,374	Single Family
Apartments Mid Rise	12,513	Dwelling Unit	329	12,012,480	1,434,385	0.00	36,163	Mixed-Use MU-C
Condo/Townhouse High Rise	9,533	Dwelling Unit	149	9,151,680	648,839	0.00	27,551	Mixed-Use MU-G
Single Family Housing	24.0	Dwelling Unit	7.79	46,800	281,109	0.00	70.0	Open Space Residential (OSR)
Single Family Housing	2,397	Dwelling Unit	778	4,674,150	28,075,718	0.00	6,191	Rural Residential (RR)
Office Park	866	1000sqft	19.9	866,000	173,210	0.00	—	Commercial Office (CO)
Automobile Care Center	518	1000sqft	11.9	518,000	103,509	0.00	—	Commercial Services (CS)
Regional Shopping Center	8,456	1000sqft	194	8,456,000	1,691,233	0.00	—	General Commercial (GC)
Manufacturing	2,897	1000sqft	66.5	2,897,000	579,478	0.00	—	Industrial General (IG)
Strip Mall	242	1000sqft	5.56	242,000	48,449	0.00	—	Mixed-Use MU-C
Strip Mall	519	1000sqft	11.9	519,000	103,812	0.00	—	Mixed-Use MU-G
Convenience Market (24 hour)	2,230	1000sqft	51.2	2,230,000	446,045	0.00	—	Neighborhood Commercial (CN)
City Park	0.00	Acre	0.00	0.00	0.00	0.00	—	Open Space (OS)
Research & Development	12,091	1000sqft	278	12,091,000	2,418,251	0.00	—	Research Light Industrial (RLI)

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	98,938	97,101	4,027	141,037	275	15,543	7,486	23,029	15,469	1,897	17,366	1,706,944	9,291,347	10,998,291	7,420	431	572,112	11,884,351
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	98,410	96,605	4,177	135,066	271	15,539	7,486	23,025	15,466	1,897	17,363	1,706,944	8,960,847	10,667,791	7,433	447	571,357	11,558,050
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	26,176	25,611	2,328	44,771	96.4	3,530	5,396	8,926	3,513	1,368	4,880	426,142	6,699,315	7,125,456	6,192	287	571,581	7,937,440
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4,777	4,674	425	8,171	17.6	644	985	1,629	641	250	891	70,553	1,109,148	1,179,701	1,025	47.6	94,632	1,314,134

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3,541	3,302	1,826	23,834	68.4	27.6	7,486	7,514	25.8	1,897	1,923	—	6,953,456	6,953,456	240	258	775	7,037,137
Area	95,353	93,777	1,819	116,969	204	15,485	—	15,485	15,413	—	15,413	1,651,918	702,843	2,354,761	1,525	119	—	2,428,237
Energy	43.5	21.8	382	233	2.38	30.1	—	30.1	30.1	—	30.1	—	1,502,082	1,502,082	99.5	7.88	—	1,506,919
Water	—	—	—	—	—	—	—	—	—	—	—	18,694	132,966	151,660	1,924	46.4	—	213,607
Waste	—	—	—	—	—	—	—	—	—	—	—	36,332	0.00	36,332	3,631	0.00	—	127,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	571,337	571,337
Total	98,938	97,101	4,027	141,037	275	15,543	7,486	23,029	15,469	1,897	17,366	1,706,944	9,291,347	10,998,291	7,420	431	572,112	11,884,351
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3,538	3,298	2,017	22,465	65.2	27.6	7,486	7,514	25.9	1,897	1,923	—	6,636,953	6,636,953	254	274	20.1	6,724,885
Area	94,828	93,285	1,778	112,368	204	15,481	—	15,481	15,410	—	15,410	1,651,918	688,845	2,340,763	1,524	119	—	2,414,189
Energy	43.5	21.8	382	233	2.38	30.1	—	30.1	30.1	—	30.1	—	1,502,082	1,502,082	99.5	7.88	—	1,506,919
Water	—	—	—	—	—	—	—	—	—	—	—	18,694	132,966	151,660	1,924	46.4	—	213,607
Waste	—	—	—	—	—	—	—	—	—	—	—	36,332	0.00	36,332	3,631	0.00	—	127,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	571,337	571,337
Total	98,410	96,605	4,177	135,066	271	15,539	7,486	23,025	15,466	1,897	17,363	1,706,944	8,960,847	10,667,791	7,433	447	571,357	11,558,050
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2,797	2,617	1,526	17,025	48.2	20.5	5,396	5,417	19.1	1,368	1,387	—	4,902,609	4,902,609	194	206	244	4,969,170
Area	23,335	22,973	420	27,514	45.8	3,480	—	3,480	3,463	—	3,463	371,116	161,657	532,773	343	26.7	—	549,293

Energy	43.5	21.8	382	233	2.38	30.1	—	30.1	30.1	—	30.1	—	1,502,082	1,502,082	99.5	7.88	—	1,506,919
Water	—	—	—	—	—	—	—	—	—	—	—	18,694	132,966	151,660	1,924	46.4	—	213,607
Waste	—	—	—	—	—	—	—	—	—	—	—	36,332	0.00	36,332	3,631	0.00	—	127,114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	571,337	571,337
Total	26,176	25,611	2,328	44,771	96.4	3,530	5,396	8,926	3,513	1,368	4,880	426,142	6,699,315	7,125,456	6,192	287	571,581	7,937,440
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	510	478	278	3,107	8.80	3.73	985	989	3.49	250	253	—	811,683	811,683	32.2	34.1	40.4	822,703
Area	4,259	4,192	76.6	5,021	8.37	635	—	635	632	—	632	61,442	26,764	88,207	56.7	4.42	—	90,942
Energy	7.95	3.97	69.8	42.6	0.43	5.49	—	5.49	5.49	—	5.49	—	248,687	248,687	16.5	1.31	—	249,488
Water	—	—	—	—	—	—	—	—	—	—	—	3,095	22,014	25,109	319	7.69	—	35,365
Waste	—	—	—	—	—	—	—	—	—	—	—	6,015	0.00	6,015	601	0.00	—	21,045
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94,591	94,591
Total	4,777	4,674	425	8,171	17.6	644	985	1,629	641	250	891	70,553	1,109,148	1,179,701	1,025	47.6	94,632	1,314,134

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	116	107	61.3	816	2.38	0.96	261	262	0.89	66.2	67.1	—	242,014	242,014	8.04	8.75	27.1	244,849

Single Family Housing	293	272	155	2,065	6.03	2.42	662	664	2.26	168	170	—	612,707	612,707	20.4	22.1	68.5	619,885
Apartments Low Rise	189	176	100	1,334	3.89	1.56	427	429	1.46	108	110	—	395,668	395,668	13.1	14.3	44.2	400,304
Condo/Townhouse	77.8	72.3	41.3	549	1.60	0.64	176	177	0.60	44.6	45.2	—	162,913	162,913	5.41	5.89	18.2	164,821
Apartments Mid Rise	160	149	84.8	1,129	3.29	1.32	362	363	1.24	91.6	92.9	—	334,889	334,889	11.1	12.1	37.4	338,812
Condo/Townhouse High Rise	122	113	64.6	860	2.51	1.01	275	276	0.94	69.8	70.8	—	255,134	255,134	8.48	9.22	28.5	258,123
Office Park	37.9	35.1	20.8	282	0.84	0.33	92.3	92.7	0.31	23.4	23.7	—	85,240	85,240	2.72	3.00	9.56	86,210
Automobile Care Center	9.08	8.40	4.97	67.5	0.20	0.08	22.1	22.2	0.07	5.60	5.67	—	20,395	20,395	0.65	0.72	2.29	20,627
Regional Shopping Center	975	925	438	5,119	13.1	5.55	1,409	1,415	5.19	357	362	—	1,336,952	1,336,952	58.0	58.7	146	1,356,032
Manufacturing	104	95.9	56.7	771	2.29	0.91	252	253	0.85	63.9	64.8	—	232,909	232,909	7.43	8.19	26.1	235,561
Strip Mall	200	185	109	1,488	4.42	1.76	487	489	1.65	123	125	—	449,429	449,429	14.3	15.8	50.4	454,546
Convenience Market (24 hour)	834	771	456	6,202	18.4	7.35	2,029	2,036	6.87	514	521	—	1,873,115	1,873,115	59.8	65.8	210	1,894,439
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Research & Development	424	392	232	3,152	9.36	3.73	1,031	1,035	3.49	261	265	—	952,090	952,090	30.4	33.5	107	962,928
Total	3,541	3,302	1,826	23,834	68.4	27.6	7,486	7,514	25.8	1,897	1,923	—	6,953,456	6,953,456	240	258	775	7,037,137
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	115	107	67.7	764	2.27	0.96	261	262	0.89	66.2	67.1	—	230,954	230,954	8.48	9.27	0.70	233,930
Single Family Housing	292	271	171	1,933	5.75	2.42	662	664	2.26	168	170	—	584,708	584,708	21.5	23.5	1.78	592,242
Apartments Low Rise	189	175	111	1,248	3.71	1.56	427	429	1.46	108	110	—	377,587	377,587	13.9	15.2	1.15	382,452
Condo/Townhouse	77.7	72.2	45.6	514	1.53	0.64	176	177	0.60	44.6	45.2	—	155,468	155,468	5.71	6.24	0.47	157,471
Apartments Mid Rise	160	148	93.7	1,057	3.14	1.32	362	363	1.24	91.6	92.9	—	319,585	319,585	11.7	12.8	0.97	323,703
Condo/Townhouse High Rise	122	113	71.4	805	2.39	1.01	275	276	0.94	69.8	70.8	—	243,475	243,475	8.94	9.77	0.74	246,612
Office Park	37.8	35.0	22.9	262	0.80	0.33	92.3	92.7	0.31	23.4	23.7	—	81,329	81,329	2.85	3.17	0.25	82,346
Automobile Care Center	9.06	8.38	5.49	62.7	0.19	0.08	22.1	22.2	0.07	5.60	5.67	—	19,459	19,459	0.68	0.76	0.06	19,702

Regional Shopping	978	926	485	5,028	12.6	5.56	1,409	1,415	5.19	357	362	—	1,277,784	1,277,784	62.8	62.5	3.78	1,297,970
Manufacturing	103	95.7	62.6	717	2.18	0.91	252	253	0.85	63.9	64.8	—	222,223	222,223	7.80	8.67	0.68	225,002
Strip Mall	200	185	121	1,383	4.22	1.76	487	489	1.65	123	125	—	428,808	428,808	15.0	16.7	1.31	434,171
Convenience Market (24 hour)	832	769	504	5,763	17.6	7.35	2,029	2,036	6.88	514	521	—	1,787,169	1,787,169	62.7	69.7	5.45	1,809,520
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Research & Development	423	391	256	2,929	8.93	3.74	1,031	1,035	3.49	261	265	—	908,404	908,404	31.9	35.4	2.77	919,764
Total	3,538	3,298	2,017	22,465	65.2	27.6	7,486	7,514	25.9	1,897	1,923	—	6,636,953	6,636,953	254	274	20.1	6,724,885
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	19.9	18.5	11.6	134	0.40	0.17	45.1	45.3	0.16	11.4	11.6	—	36,885	36,885	1.32	1.45	1.85	37,353
Single Family Housing	51.4	47.7	30.0	346	1.03	0.43	117	117	0.40	29.6	30.0	—	95,328	95,328	3.42	3.76	4.79	96,538
Apartments Low Rise	30.4	28.2	17.7	204	0.61	0.26	68.9	69.2	0.24	17.5	17.7	—	56,379	56,379	2.02	2.22	2.83	57,094
Condo/Townhouse	12.5	11.6	7.30	84.2	0.25	0.11	28.4	28.5	0.10	7.20	7.29	—	23,214	23,214	0.83	0.91	1.17	23,508
Apartments Mid Rise	27.3	25.4	15.9	184	0.55	0.23	62.0	62.2	0.21	15.7	15.9	—	50,662	50,662	1.82	2.00	2.54	51,305

Condo/T High Rise	20.8	19.3	12.1	140	0.42	0.17	47.2	47.4	0.16	12.0	12.1	—	38,597	38,597	1.39	1.52	1.94	39,086
Office Park	5.08	4.69	3.06	35.8	0.11	0.05	12.4	12.4	0.04	3.14	3.19	—	10,108	10,108	0.35	0.39	0.51	10,232
Automobile Care Center	1.37	1.29	0.73	8.01	0.02	0.01	2.47	2.48	0.01	0.63	0.63	—	2,041	2,041	0.08	0.09	0.10	2,070
Regional Shopping Center	137	130	66.2	687	1.70	0.75	186	187	0.70	47.1	47.8	—	156,537	156,537	7.83	7.74	7.63	159,047
Manufacturing	12.9	11.9	7.77	91.0	0.28	0.12	31.5	31.6	0.11	7.99	8.10	—	25,695	25,695	0.88	0.98	1.29	26,012
Strip Mall	32.9	30.4	19.8	232	0.71	0.29	80.3	80.6	0.28	20.4	20.6	—	65,477	65,477	2.25	2.51	3.30	66,284
Convenience Market (24 hour)	101	95.4	51.8	558	1.48	0.64	164	165	0.60	41.7	42.3	—	136,769	136,769	6.06	6.21	6.75	138,777
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Research & Development	57.3	52.9	34.5	404	1.24	0.51	140	140	0.48	35.4	35.9	—	113,991	113,991	3.92	4.37	5.74	115,396
Total	510	478	278	3,107	8.80	3.73	985	989	3.49	250	253	—	811,683	811,683	32.2	34.1	40.4	822,703

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	48,605	48,605	2.72	0.33	—	48,771
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	129,899	129,899	7.28	0.88	—	130,344
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	56,205	56,205	3.15	0.38	—	56,398
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	36,475	36,475	2.04	0.25	—	36,600
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	68,467	68,467	3.84	0.46	—	68,702
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	52,162	52,162	2.92	0.35	—	52,340
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	23,190	23,190	1.30	0.16	—	23,269
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	7,501	7,501	0.42	0.05	—	7,526
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	120,275	120,275	6.74	0.82	—	120,687
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	41,948	41,948	2.35	0.28	—	42,092

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10,824	10,824	0.61	0.07	—	10,861
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	110,421	110,421	6.19	0.75	—	110,799
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	323,771	323,771	18.1	2.20	—	324,880
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,029,743	1,029,743	57.7	6.99	—	1,033,269
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	48,605	48,605	2.72	0.33	—	48,771
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	129,899	129,899	7.28	0.88	—	130,344
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	56,205	56,205	3.15	0.38	—	56,398
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	36,475	36,475	2.04	0.25	—	36,600
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	68,467	68,467	3.84	0.46	—	68,702
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	52,162	52,162	2.92	0.35	—	52,340

Office Park	—	—	—	—	—	—	—	—	—	—	—	—	23,190	23,190	1.30	0.16	—	23,269
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	7,501	7,501	0.42	0.05	—	7,526
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	120,275	120,275	6.74	0.82	—	120,687
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	41,948	41,948	2.35	0.28	—	42,092
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10,824	10,824	0.61	0.07	—	10,861
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	110,421	110,421	6.19	0.75	—	110,799
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	323,771	323,771	18.1	2.20	—	324,880
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,029,743	1,029,743	57.7	6.99	—	1,033,269
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	8,047	8,047	0.45	0.05	—	8,075
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	21,506	21,506	1.20	0.15	—	21,580
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	9,305	9,305	0.52	0.06	—	9,337

Condo/T	—	—	—	—	—	—	—	—	—	—	—	—	6,039	6,039	0.34	0.04	—	6,060
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	11,336	11,336	0.64	0.08	—	11,374
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	8,636	8,636	0.48	0.06	—	8,666
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	3,839	3,839	0.22	0.03	—	3,852
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	1,242	1,242	0.07	0.01	—	1,246
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	19,913	19,913	1.12	0.14	—	19,981
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	6,945	6,945	0.39	0.05	—	6,969
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	1,792	1,792	0.10	0.01	—	1,798
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	18,281	18,281	1.02	0.12	—	18,344
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	53,604	53,604	3.00	0.36	—	53,788
Total	—	—	—	—	—	—	—	—	—	—	—	—	170,486	170,486	9.55	1.16	—	171,070

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	1.86	0.93	15.9	6.76	0.10	1.28	—	1.28	1.28	—	1.28	—	20,151	20,151	1.78	0.04	—	20,207
Single Family Housing	11.0	5.52	94.4	40.2	0.60	7.63	—	7.63	7.63	—	7.63	—	119,797	119,797	10.6	0.23	—	120,130
Apartments Low Rise	4.00	2.00	34.2	14.5	0.22	2.76	—	2.76	2.76	—	2.76	—	43,349	43,349	3.84	0.08	—	43,469
Condo/Townhouse	3.33	1.66	28.4	12.1	0.18	2.30	—	2.30	2.30	—	2.30	—	36,077	36,077	3.19	0.07	—	36,178
Apartments Mid Rise	2.62	1.31	22.4	9.52	0.14	1.81	—	1.81	1.81	—	1.81	—	28,386	28,386	2.51	0.05	—	28,465
Condo/Townhouse High Rise	1.99	1.00	17.0	7.25	0.11	1.38	—	1.38	1.38	—	1.38	—	21,626	21,626	1.91	0.04	—	21,686
Office Park	0.82	0.41	7.45	6.26	0.04	0.57	—	0.57	0.57	—	0.57	—	8,888	8,888	0.79	0.02	—	8,912
Automobile Care Center	0.62	0.31	5.62	4.72	0.03	0.43	—	0.43	0.43	—	0.43	—	6,701	6,701	0.59	0.01	—	6,720
Regional Shopping Center	1.08	0.54	9.83	8.26	0.06	0.75	—	0.75	0.75	—	0.75	—	11,727	11,727	1.04	0.02	—	11,760

Manufac	3.45	1.73	31.4	26.4	0.19	2.39	—	2.39	2.39	—	2.39	—	37,476	37,476	3.32	0.07	—	37,580
Strip Mall	0.10	0.05	0.88	0.74	0.01	0.07	—	0.07	0.07	—	0.07	—	1,055	1,055	0.09	< 0.005	—	1,058
Convenience Market (24 hour)	1.20	0.60	10.9	9.16	0.07	0.83	—	0.83	0.83	—	0.83	—	13,016	13,016	1.15	0.02	—	13,052
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Research & Development	11.4	5.72	104	87.4	0.62	7.90	—	7.90	7.90	—	7.90	—	124,089	124,089	11.0	0.23	—	124,433
Total	43.5	21.8	382	233	2.38	30.1	—	30.1	30.1	—	30.1	—	472,339	472,339	41.8	0.89	—	473,649
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	1.86	0.93	15.9	6.76	0.10	1.28	—	1.28	1.28	—	1.28	—	20,151	20,151	1.78	0.04	—	20,207
Single Family Housing	11.0	5.52	94.4	40.2	0.60	7.63	—	7.63	7.63	—	7.63	—	119,797	119,797	10.6	0.23	—	120,130
Apartments Low Rise	4.00	2.00	34.2	14.5	0.22	2.76	—	2.76	2.76	—	2.76	—	43,349	43,349	3.84	0.08	—	43,469
Condo/Townhouse	3.33	1.66	28.4	12.1	0.18	2.30	—	2.30	2.30	—	2.30	—	36,077	36,077	3.19	0.07	—	36,178
Apartments Mid Rise	2.62	1.31	22.4	9.52	0.14	1.81	—	1.81	1.81	—	1.81	—	28,386	28,386	2.51	0.05	—	28,465
Condo/Townhouse High Rise	1.99	1.00	17.0	7.25	0.11	1.38	—	1.38	1.38	—	1.38	—	21,626	21,626	1.91	0.04	—	21,686

Office Park	0.82	0.41	7.45	6.26	0.04	0.57	—	0.57	0.57	—	0.57	—	8,888	8,888	0.79	0.02	—	8,912
Automobile Care Center	0.62	0.31	5.62	4.72	0.03	0.43	—	0.43	0.43	—	0.43	—	6,701	6,701	0.59	0.01	—	6,720
Regional Shopping Center	1.08	0.54	9.83	8.26	0.06	0.75	—	0.75	0.75	—	0.75	—	11,727	11,727	1.04	0.02	—	11,760
Manufacturing	3.45	1.73	31.4	26.4	0.19	2.39	—	2.39	2.39	—	2.39	—	37,476	37,476	3.32	0.07	—	37,580
Strip Mall	0.10	0.05	0.88	0.74	0.01	0.07	—	0.07	0.07	—	0.07	—	1,055	1,055	0.09	< 0.005	—	1,058
Convenience Market (24 hour)	1.20	0.60	10.9	9.16	0.07	0.83	—	0.83	0.83	—	0.83	—	13,016	13,016	1.15	0.02	—	13,052
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Research & Development	11.4	5.72	104	87.4	0.62	7.90	—	7.90	7.90	—	7.90	—	124,089	124,089	11.0	0.23	—	124,433
Total	43.5	21.8	382	233	2.38	30.1	—	30.1	30.1	—	30.1	—	472,339	472,339	41.8	0.89	—	473,649
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	0.34	0.17	2.90	1.23	0.02	0.23	—	0.23	0.23	—	0.23	—	3,336	3,336	0.30	0.01	—	3,346
Single Family Housing	2.02	1.01	17.2	7.33	0.11	1.39	—	1.39	1.39	—	1.39	—	19,834	19,834	1.76	0.04	—	19,889
Apartments Low Rise	0.73	0.36	6.23	2.65	0.04	0.50	—	0.50	0.50	—	0.50	—	7,177	7,177	0.64	0.01	—	7,197

Condo/T	0.61	0.30	5.19	2.21	0.03	0.42	—	0.42	0.42	—	0.42	—	5,973	5,973	0.53	0.01	—	5,990
Apartme nts Mid Rise	0.48	0.24	4.08	1.74	0.03	0.33	—	0.33	0.33	—	0.33	—	4,700	4,700	0.42	0.01	—	4,713
Condo/T ownhou se High Rise	0.36	0.18	3.11	1.32	0.02	0.25	—	0.25	0.25	—	0.25	—	3,580	3,580	0.32	0.01	—	3,590
Office Park	0.15	0.07	1.36	1.14	0.01	0.10	—	0.10	0.10	—	0.10	—	1,471	1,471	0.13	< 0.005	—	1,476
Automobile Care Center	0.11	0.06	1.02	0.86	0.01	0.08	—	0.08	0.08	—	0.08	—	1,109	1,109	0.10	< 0.005	—	1,112
Regiona l Shoppin g Center	0.20	0.10	1.79	1.51	0.01	0.14	—	0.14	0.14	—	0.14	—	1,942	1,942	0.17	< 0.005	—	1,947
Manufac turing	0.63	0.32	5.73	4.81	0.03	0.44	—	0.44	0.44	—	0.44	—	6,205	6,205	0.55	0.01	—	6,222
Strip Mall	0.02	0.01	0.16	0.14	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.02	< 0.005	—	175
Conveni ence Market (24 hour)	0.22	0.11	1.99	1.67	0.01	0.15	—	0.15	0.15	—	0.15	—	2,155	2,155	0.19	< 0.005	—	2,161
City Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Researc h & Development	2.09	1.04	19.0	15.9	0.11	1.44	—	1.44	1.44	—	1.44	—	20,544	20,544	1.82	0.04	—	20,601
Total	7.95	3.97	69.8	42.6	0.43	5.49	—	5.49	5.49	—	5.49	—	78,201	78,201	6.92	0.15	—	78,418

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	92,542	90,999	1,778	112,368	204	15,481	—	15,481	15,410	—	15,410	1,651,918	688,845	2,340,763	1,524	119	—	2,414,189
Consumer Products	2,128	2,128	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	158	158	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	525	492	41.3	4,602	0.22	3.66	—	3.66	2.77	—	2.77	—	13,998	13,998	0.59	0.12	—	14,048
Total	95,353	93,777	1,819	116,969	204	15,485	—	15,485	15,413	—	15,413	1,651,918	702,843	2,354,761	1,525	119	—	2,428,237
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	92,542	90,999	1,778	112,368	204	15,481	—	15,481	15,410	—	15,410	1,651,918	688,845	2,340,763	1,524	119	—	2,414,189
Consumer Products	2,128	2,128	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	158	158	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	94,828	93,285	1,778	112,368	204	15,481	—	15,481	15,410	—	15,410	1,651,918	688,845	2,340,763	1,524	119	—	2,414,189
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3,794	3,731	72.9	4,607	8.35	635	—	635	632	—	632	61,442	25,621	87,064	56.7	4.41	—	89,795
Consumer Products	388	388	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	28.9	28.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	47.3	44.3	3.72	414	0.02	0.33	—	0.33	0.25	—	0.25	—	1,143	1,143	0.05	0.01	—	1,147
Total	4,259	4,192	76.6	5,021	8.37	635	—	635	632	—	632	61,442	26,764	88,207	56.7	4.42	—	90,942

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	598	3,526	4,124	61.5	1.48	—	6,103

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	882	29,073	29,955	92.1	2.35	—	32,957
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	671	4,273	4,944	69.1	1.66	—	7,167
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	369	2,346	2,714	37.9	0.91	—	3,934
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	842	5,053	5,896	86.7	2.09	—	8,684
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	642	3,781	4,422	66.0	1.59	—	6,546
Office Park	—	—	—	—	—	—	—	—	—	—	—	295	1,713	2,008	30.3	0.73	—	2,984
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	93.4	549	642	9.61	0.23	—	951
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	1,200	7,097	8,297	123	2.97	—	12,269
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,284	7,433	8,717	132	3.18	—	12,965
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	108	639	747	11.1	0.27	—	1,104
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	317	1,872	2,188	32.6	0.78	—	3,236
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Research & Development	—	—	—	—	—	—	—	—	—	—	—	11,392	65,614	77,006	1,172	28.2	—	114,705
Total	—	—	—	—	—	—	—	—	—	—	—	18,694	132,966	151,660	1,924	46.4	—	213,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	598	3,526	4,124	61.5	1.48	—	6,103
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	882	29,073	29,955	92.1	2.35	—	32,957
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	671	4,273	4,944	69.1	1.66	—	7,167
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	369	2,346	2,714	37.9	0.91	—	3,934
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	842	5,053	5,896	86.7	2.09	—	8,684
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	642	3,781	4,422	66.0	1.59	—	6,546
Office Park	—	—	—	—	—	—	—	—	—	—	—	295	1,713	2,008	30.3	0.73	—	2,984
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	93.4	549	642	9.61	0.23	—	951

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	1,200	7,097	8,297	123	2.97	—	12,269
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,284	7,433	8,717	132	3.18	—	12,965
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	108	639	747	11.1	0.27	—	1,104
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	317	1,872	2,188	32.6	0.78	—	3,236
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	11,392	65,614	77,006	1,172	28.2	—	114,705
Total	—	—	—	—	—	—	—	—	—	—	—	18,694	132,966	151,660	1,924	46.4	—	213,607
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	99.0	584	683	10.2	0.25	—	1,010
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	146	4,813	4,959	15.3	0.39	—	5,456
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	111	707	819	11.4	0.28	—	1,187
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	61.0	388	449	6.28	0.15	—	651
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	139	837	976	14.3	0.35	—	1,438

Condo/T High Rise	—	—	—	—	—	—	—	—	—	—	—	106	626	732	10.9	0.26	—	1,084
Office Park	—	—	—	—	—	—	—	—	—	—	—	48.8	284	332	5.02	0.12	—	494
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	15.5	90.8	106	1.59	0.04	—	157
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	199	1,175	1,374	20.4	0.49	—	2,031
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	213	1,231	1,443	21.9	0.53	—	2,147
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	17.9	106	124	1.84	0.04	—	183
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	52.4	310	362	5.39	0.13	—	536
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	1,886	10,863	12,749	194	4.67	—	18,991
Total	—	—	—	—	—	—	—	—	—	—	—	3,095	22,014	25,109	319	7.69	—	35,365

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	3,568	0.00	3,568	357	0.00	—	12,482
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4,695	0.00	4,695	469	0.00	—	16,426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4,014	0.00	4,014	401	0.00	—	14,045
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2,195	0.00	2,195	219	0.00	—	7,680
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769
Office Park	—	—	—	—	—	—	—	—	—	—	—	434	0.00	434	43.4	0.00	—	1,519
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1,066	0.00	1,066	107	0.00	—	3,731
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	4,785	0.00	4,785	478	0.00	—	16,742
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,936	0.00	1,936	193	0.00	—	6,773

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	431	0.00	431	43.0	0.00	—	1,507
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	3,612	0.00	3,612	361	0.00	—	12,636
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	495	0.00	495	49.5	0.00	—	1,733
Total	—	—	—	—	—	—	—	—	—	—	—	36,332	0.00	36,332	3,631	0.00	—	127,114
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	3,568	0.00	3,568	357	0.00	—	12,482
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4,695	0.00	4,695	469	0.00	—	16,426
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	4,014	0.00	4,014	401	0.00	—	14,045
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	2,195	0.00	2,195	219	0.00	—	7,680
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769

Office Park	—	—	—	—	—	—	—	—	—	—	—	434	0.00	434	43.4	0.00	—	1,519
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	1,066	0.00	1,066	107	0.00	—	3,731
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	4,785	0.00	4,785	478	0.00	—	16,742
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	1,936	0.00	1,936	193	0.00	—	6,773
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	431	0.00	431	43.0	0.00	—	1,507
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	3,612	0.00	3,612	361	0.00	—	12,636
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	495	0.00	495	49.5	0.00	—	1,733
Total	—	—	—	—	—	—	—	—	—	—	—	36,332	0.00	36,332	3,631	0.00	—	127,114
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	591	0.00	591	59.0	0.00	—	2,067
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	777	0.00	777	77.7	0.00	—	2,720
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	665	0.00	665	66.4	0.00	—	2,325

Condo/T	—	—	—	—	—	—	—	—	—	—	—	363	0.00	363	36.3	0.00	—	1,271
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	855	0.00	855	85.5	0.00	—	2,992
Condo/T ownhou se High Rise	—	—	—	—	—	—	—	—	—	—	—	652	0.00	652	65.1	0.00	—	2,280
Office Park	—	—	—	—	—	—	—	—	—	—	—	71.9	0.00	71.9	7.18	0.00	—	251
Automob ile Care Center	—	—	—	—	—	—	—	—	—	—	—	177	0.00	177	17.6	0.00	—	618
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	792	0.00	792	79.2	0.00	—	2,772
Manufac turing	—	—	—	—	—	—	—	—	—	—	—	321	0.00	321	32.0	0.00	—	1,121
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	71.3	0.00	71.3	7.13	0.00	—	249
Conveni ence Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	598	0.00	598	59.8	0.00	—	2,092
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Researc h & Development	—	—	—	—	—	—	—	—	—	—	—	82.0	0.00	82.0	8.19	0.00	—	287
Total	—	—	—	—	—	—	—	—	—	—	—	6,015	0.00	6,015	601	0.00	—	21,045

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.1	61.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	183	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41.6	41.6
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	86.0	86.0
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.5	65.5
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107,391	107,391

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.6	40.6
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	754	754
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.74	4.74
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	462,322	462,322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	309	309
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	571,337	571,337
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61.1	61.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	183	183
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	41.6	41.6
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	86.0	86.0

Condo/T High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.5	65.5
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.11	2.11
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107,391	107,391
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	40.6	40.6
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	754	754
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.74	4.74
Convenience Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	462,322	462,322
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	309	309
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	571,337	571,337
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	30.3	30.3

Apartme Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Condo/T ownhou se	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.88	6.88
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14.2	14.2
Condo/T ownhou se High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.9	10.9
Office Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Automobile Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17,780	17,780
Regiona l Shoppin g Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.72	6.72
Manufac turing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125	125
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.78	0.78
Conveni ence Market (24 hour)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	76,543	76,543
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00

Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51.1	51.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94,591	94,591

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
---------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments High Rise	53,298	54,256	42,997	18,966,638	364,048	370,594	293,689	129,550,085
Single Family Housing	24,700	24,962	22,371	8,907,713	168,711	170,498	152,805	60,843,413
Apartments Low Rise	79,768	88,704	68,435	28,990,332	544,849	605,886	467,439	198,016,113
Condo/Townhouse	32,844	36,523	28,177	11,936,568	224,338	249,468	192,464	81,531,763
Single Family Housing	82,170	83,040	74,423	29,633,474	561,256	567,199	508,340	202,409,039
Apartments Mid Rise	75,078	67,763	56,446	26,050,522	512,814	462,849	385,551	177,935,975
Condo/Townhouse High Rise	57,198	51,625	43,003	19,846,529	390,686	352,620	293,731	135,560,110
Single Family Housing	288	291	261	103,863	1,967	1,988	1,782	709,429
Single Family Housing	28,764	29,069	26,052	10,373,336	196,470	198,551	177,946	70,854,231
Office Park	17,320	2,566	1,189	4,711,371	130,929	19,397	8,989	35,615,170
Automobile Care Center	4,144	4,144	2,075	1,404,701	17,772	31,326	15,689	7,084,995
Regional Shopping Center	422,800	516,544	236,320	149,486,472	1,463,787	1,998,666	914,393	533,525,463
Manufacturing	28,970	47,325	37,521	11,977,015	218,996	357,750	283,637	90,539,126

Strip Mall	29,040	27,546	13,386	9,705,481	219,525	208,232	101,194	73,367,676
Strip Mall	62,280	59,076	28,709	20,814,647	470,800	446,580	217,023	157,346,380
Convenience Market (24 hour)	267,600	380,600	316,358	106,108,510	756,422	2,877,111	2,391,476	471,929,142
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Research & Development	193,456	32,643	19,071	53,133,280	1,462,413	246,764	144,166	401,656,072

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments High Rise	—
Wood Fireplaces	3109
Gas Fireplaces	4886
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	888
Conventional Wood Stoves	0
Catalytic Wood Stoves	444
Non-Catalytic Wood Stoves	444
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	865
Gas Fireplaces	1359
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	247
Wood Fireplaces	2876
Gas Fireplaces	4519
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	822
Wood Fireplaces	8
Gas Fireplaces	13
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	2
Wood Fireplaces	839
Gas Fireplaces	1318
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	240
Conventional Wood Stoves	0
Catalytic Wood Stoves	124
Non-Catalytic Wood Stoves	124
Pellet Wood Stoves	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	411
Non-Catalytic Wood Stoves	411
Pellet Wood Stoves	0
Conventional Wood Stoves	0
Catalytic Wood Stoves	1
Non-Catalytic Wood Stoves	1
Pellet Wood Stoves	0

Conventional Wood Stoves	0
Catalytic Wood Stoves	120
Non-Catalytic Wood Stoves	120
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	3490
Gas Fireplaces	5484
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	997
Conventional Wood Stoves	0
Catalytic Wood Stoves	499
Non-Catalytic Wood Stoves	499
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	1916
Gas Fireplaces	3011
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	547
Conventional Wood Stoves	0
Catalytic Wood Stoves	274
Non-Catalytic Wood Stoves	274
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	4380
Gas Fireplaces	6882
Propane Fireplaces	0

Electric Fireplaces	0
No Fireplaces	1251
Conventional Wood Stoves	0
Catalytic Wood Stoves	626
Non-Catalytic Wood Stoves	626
Pellet Wood Stoves	0
Condo/Townhouse High Rise	—
Wood Fireplaces	3337
Gas Fireplaces	5243
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	953
Conventional Wood Stoves	0
Catalytic Wood Stoves	477
Non-Catalytic Wood Stoves	477
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
145038883.5	48,346,295	41,728,500	13,909,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments High Rise	30,121,098	589	0.0330	0.0040	62,877,750
Single Family Housing	15,168,956	589	0.0330	0.0040	70,436,825
Apartments Low Rise	34,831,115	589	0.0330	0.0040	135,260,715
Condo/Townhouse	22,604,088	589	0.0330	0.0040	112,571,346
Single Family Housing	50,462,878	589	0.0330	0.0040	234,323,640
Apartments Mid Rise	42,429,955	589	0.0330	0.0040	88,572,473
Condo/Townhouse High Rise	32,325,163	589	0.0330	0.0040	67,478,733
Single Family Housing	147,391	589	0.0330	0.0040	684,406
Single Family Housing	14,720,642	589	0.0330	0.0040	68,355,089
Office Park	14,370,895	589	0.0330	0.0040	27,731,941
Automobile Care Center	4,648,231	589	0.0330	0.0040	20,908,686
Regional Shopping Center	74,535,908	589	0.0330	0.0040	36,592,633
Manufacturing	25,995,995	589	0.0330	0.0040	116,935,258
Strip Mall	2,133,123	589	0.0330	0.0040	1,047,235
Strip Mall	4,574,756	589	0.0330	0.0040	2,245,929
Convenience Market (24 hour)	68,429,178	589	0.0330	0.0040	40,612,142
City Park	0.00	589	0.0330	0.0040	0.00
Research & Development	200,644,906	589	0.0330	0.0040	387,190,408

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
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Apartments High Rise	312,087,105	11,399,279
Single Family Housing	86,778,695	528,422,849
Apartments Low Rise	350,311,891	49,582,502
Condo/Townhouse	192,318,453	27,220,407
Single Family Housing	288,688,477	1,757,915,191
Apartments Mid Rise	439,620,167	26,199,170
Condo/Townhouse High Rise	334,923,604	11,851,102
Single Family Housing	843,194	5,134,481
Single Family Housing	84,213,981	512,805,486
Office Park	153,917,426	2,588,479
Automobile Care Center	48,734,014	1,546,855
Regional Shopping Center	626,357,242	25,274,063
Manufacturing	669,931,250	8,659,814
Strip Mall	17,925,550	724,030
Strip Mall	38,443,639	1,551,384
Convenience Market (24 hour)	165,181,723	6,665,769
City Park	0.00	0.00
Research & Development	5,945,071,516	36,138,739

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments High Rise	6,620	—
Single Family Housing	1,686	—
Apartments Low Rise	7,448	—
Condo/Townhouse	4,073	—
Single Family Housing	5,541	—

Apartments Mid Rise	9,585	—
Condo/Townhouse High Rise	7,302	—
Single Family Housing	16.6	—
Single Family Housing	1,468	—
Office Park	805	—
Automobile Care Center	1,979	—
Regional Shopping Center	8,879	—
Manufacturing	3,592	—
Strip Mall	254	—
Strip Mall	545	—
Convenience Market (24 hour)	6,702	—
City Park	0.00	—
Research & Development	919	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Office Park	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Office Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Automobile Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Automobile Care Center	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

Convenience Market (24 hour)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Convenience Market (24 hour)	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0
City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Research & Development	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.16	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	12.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.6
AQ-PM	34.8
AQ-DPM	67.8
Drinking Water	25.3
Lead Risk Housing	62.6
Pesticides	46.0
Toxic Releases	15.4
Traffic	52.2
Effect Indicators	—
CleanUp Sites	32.2
Groundwater	0.00

Haz Waste Facilities/Generators	37.7
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	33.3
Cardio-vascular	40.2
Low Birth Weights	39.9
Socioeconomic Factor Indicators	—
Education	62.7
Housing	32.7
Linguistic	40.4
Poverty	63.2
Unemployment	22.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	20.09495701
Employed	15.8475555
Median HI	24.6888233
Education	—
Bachelor's or higher	14.74400103
High school enrollment	100
Preschool enrollment	4.106249198
Transportation	—
Auto Access	52.9449506
Active commuting	27.42204543

Social	—
2-parent households	14.59001668
Voting	35.17259079
Neighborhood	—
Alcohol availability	12.13909919
Park access	55.83215706
Retail density	82.44578468
Supermarket access	87.70691646
Tree canopy	26.12601052
Housing	—
Homeownership	25.25343257
Housing habitability	49.49313486
Low-inc homeowner severe housing cost burden	60.43885538
Low-inc renter severe housing cost burden	83.42101886
Uncrowded housing	35.53188759
Health Outcomes	—
Insured adults	12.03644296
Arthritis	50.5
Asthma ER Admissions	44.3
High Blood Pressure	84.3
Cancer (excluding skin)	80.0
Asthma	12.1
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	11.3
Diagnosed Diabetes	39.3
Life Expectancy at Birth	44.2
Cognitively Disabled	23.2
Physically Disabled	65.4

Heart Attack ER Admissions	65.5
Mental Health Not Good	7.6
Chronic Kidney Disease	55.3
Obesity	19.4
Pedestrian Injuries	54.5
Physical Health Not Good	17.6
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	22.7
Current Smoker	5.1
No Leisure Time for Physical Activity	17.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	20.9
Elderly	97.2
English Speaking	9.4
Foreign-born	55.6
Outdoor Workers	15.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.3
Traffic Density	72.0
Traffic Access	60.3
Other Indices	—
Hardship	63.0
Other Decision Support	—
2016 Voting	50.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0
Healthy Places Index Score for Project Location (b)	18.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on plan specific data.
Operations: Vehicle Data	Based on SANDAG trip rates

Vista GP 2050 Mixed Use Only Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Vista GP 2050 Mixed Use Only
Operational Year	2050
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	19.4
Location	Vista, CA, USA
County	San Diego
City	Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6261
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.29

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
Apartments Mid Rise	7,230	Dwelling Unit	190	6,940,800	1,434,385	0.00	36,163	Mixed-Use MU-C

Condo/Townhouse High Rise	4,250	Dwelling Unit	66.4	4,080,000	648,839	0.00	27,551	Mixed-Use MU-G
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Area Sources	E-14	Limit Wood Burning Devices and Natural Gas/Propane Fireplaces in Residential Development

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18,324	18,012	447	23,386	42.5	2,991	332	3,323	2,977	84.1	3,061	328,693	535,545	864,238	1,299	36.4	113	907,680
Mit.	1,043	736	204	4,473	15.3	408	332	740	393	84.1	477	105,017	422,135	527,151	1,475	13.5	113	568,172
% Reduced	94%	96%	54%	81%	64%	86%	—	78%	87%	—	84%	68%	21%	39%	-13%	63%	—	37%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	18,264	17,955	450	22,665	42.3	2,991	332	3,323	2,977	84.1	3,061	328,693	519,763	848,456	1,300	37.0	79.8	892,070
Mit.	983	679	206	3,752	15.1	408	332	740	392	84.1	476	105,017	406,353	511,370	1,475	14.2	79.8	552,562
% Reduced	95%	96%	54%	83%	64%	86%	—	78%	87%	—	84%	68%	22%	40%	-13%	62%	—	38%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4,436	4,357	181	6,127	11.7	674	311	986	671	78.9	750	81,499	405,078	486,577	1,071	18.6	93.0	518,992

Mit.	554	476	126	1,878	5.62	94.0	311	405	90.4	78.9	169	31,248	379,600	410,848	1,111	13.5	93.0	442,719
% Reduced	88%	89%	30%	69%	52%	86%	—	59%	87%	—	77%	62%	6%	16%	-4%	28%	—	15%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	810	795	33.0	1,118	2.14	123	56.8	180	122	14.4	137	13,493	67,065	80,558	177	3.08	15.4	85,925
Mit.	101	86.8	23.0	343	1.03	17.1	56.8	74.0	16.5	14.4	30.9	5,174	62,847	68,021	184	2.23	15.4	73,297
% Reduced	88%	89%	30%	69%	52%	86%	—	59%	87%	—	77%	62%	6%	16%	-4%	28%	—	15%

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	147	136	77.8	1,036	3.02	1.21	332	333	1.13	84.1	85.2	—	307,242	307,242	10.2	11.1	34.3	310,842
Area	18,175	17,874	349	22,342	39.3	2,988	—	2,988	2,974	—	2,974	318,819	134,688	453,508	294	22.9	—	467,685
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145
Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	18,324	18,012	447	23,386	42.5	2,991	332	3,323	2,977	84.1	3,061	328,693	535,545	864,238	1,299	36.4	113	907,680
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	147	136	85.9	969	2.88	1.21	332	333	1.14	84.1	85.2	—	293,202	293,202	10.8	11.8	0.89	296,980
Area	18,115	17,818	343	21,687	39.3	2,988	—	2,988	2,974	—	2,974	318,819	132,947	451,766	294	22.9	—	465,937
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145
Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	18,264	17,955	450	22,665	42.3	2,991	332	3,323	2,977	84.1	3,061	328,693	519,763	848,456	1,300	37.0	79.8	892,070
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	137	127	80.1	923	2.76	1.15	311	313	1.08	78.9	80.0	—	280,738	280,738	10.1	11.1	14.1	284,301
Area	4,297	4,228	80.0	5,195	8.84	671	—	671	668	—	668	71,625	30,726	102,351	66.1	5.15	—	105,538
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145
Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	4,436	4,357	181	6,127	11.7	674	311	986	671	78.9	750	81,499	405,078	486,577	1,071	18.6	93.0	518,992
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.1	23.3	14.6	169	0.50	0.21	56.8	57.0	0.20	14.4	14.6	—	46,479	46,479	1.67	1.83	2.33	47,069
Area	784	772	14.6	948	1.61	123	—	123	122	—	122	11,858	5,087	16,945	10.9	0.85	—	17,473
Energy	0.44	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	—	14,711	14,711	0.96	0.08	—	14,759
Water	—	—	—	—	—	—	—	—	—	—	—	128	787	915	13.2	0.32	—	1,339
Waste	—	—	—	—	—	—	—	—	—	—	—	1,507	0.00	1,507	151	0.00	—	5,272
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	810	795	33.0	1,118	2.14	123	56.8	180	122	14.4	137	13,493	67,065	80,558	177	3.08	15.4	85,925

2.6. Operations Emissions by Sector, Mitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	147	136	77.8	1,036	3.02	1.21	332	333	1.13	84.1	85.2	—	307,242	307,242	10.2	11.1	34.3	310,842
Area	894	598	106	3,429	12.1	405	—	405	390	—	390	95,143	21,278	116,421	470	0.05	—	128,177
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145

Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	1,043	736	204	4,473	15.3	408	332	740	393	84.1	477	105,017	422,135	527,151	1,475	13.5	113	568,172
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	147	136	85.9	969	2.88	1.21	332	333	1.14	84.1	85.2	—	293,202	293,202	10.8	11.8	0.89	296,980
Area	834	541	99.8	2,774	12.1	405	—	405	390	—	390	95,143	19,537	114,680	470	0.04	—	126,430
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145
Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	983	679	206	3,752	15.1	408	332	740	392	84.1	476	105,017	406,353	511,370	1,475	14.2	79.8	552,562
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	137	127	80.1	923	2.76	1.15	311	313	1.08	78.9	80.0	—	280,738	280,738	10.1	11.1	14.1	284,301
Area	414	347	25.4	946	2.73	91.1	—	91.1	87.6	—	87.6	21,375	5,248	26,622	106	0.02	—	29,265
Energy	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	88,858	88,858	5.82	0.48	—	89,145
Water	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Waste	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Total	554	476	126	1,878	5.62	94.0	311	405	90.4	78.9	169	31,248	379,600	410,848	1,111	13.5	93.0	442,719
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	25.1	23.3	14.6	169	0.50	0.21	56.8	57.0	0.20	14.4	14.6	—	46,479	46,479	1.67	1.83	2.33	47,069
Area	75.6	63.3	4.63	173	0.50	16.6	—	16.6	16.0	—	16.0	3,539	869	4,408	17.5	< 0.005	—	4,845
Energy	0.44	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	—	14,711	14,711	0.96	0.08	—	14,759
Water	—	—	—	—	—	—	—	—	—	—	—	128	787	915	13.2	0.32	—	1,339
Waste	—	—	—	—	—	—	—	—	—	—	—	1,507	0.00	1,507	151	0.00	—	5,272

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	101	86.8	23.0	343	1.03	17.1	56.8	74.0	16.5	14.4	30.9	5,174	62,847	68,021	184	2.23	15.4	73,297

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	92.4	85.9	49.0	652	1.90	0.76	209	210	0.71	53.0	53.7	—	193,499	193,499	6.43	6.99	21.6	195,765
Condo/Townhouse High Rise	54.3	50.5	28.8	383	1.12	0.45	123	123	0.42	31.1	31.5	—	113,744	113,744	3.78	4.11	12.7	115,076
Total	147	136	77.8	1,036	3.02	1.21	332	333	1.13	84.1	85.2	—	307,242	307,242	10.2	11.1	34.3	310,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	92.3	85.7	54.1	610	1.82	0.76	209	210	0.72	53.0	53.7	—	184,656	184,656	6.78	7.41	0.56	187,035
Condo/Townhouse High Rise	54.3	50.4	31.8	359	1.07	0.45	123	123	0.42	31.1	31.5	—	108,546	108,546	3.98	4.36	0.33	109,945
Total	147	136	85.9	969	2.88	1.21	332	333	1.14	84.1	85.2	—	293,202	293,202	10.8	11.8	0.89	296,980

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	15.8	14.7	9.20	106	0.32	0.13	35.8	35.9	0.12	9.07	9.20	—	29,272	29,272	1.05	1.15	1.47	29,644
Condo/Townhouse High Rise	9.28	8.61	5.41	62.4	0.19	0.08	21.0	21.1	0.07	5.33	5.41	—	17,207	17,207	0.62	0.68	0.86	17,425
Total	25.1	23.3	14.6	169	0.50	0.21	56.8	57.0	0.20	14.4	14.6	—	46,479	46,479	1.67	1.83	2.33	47,069

4.1.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	92.4	85.9	49.0	652	1.90	0.76	209	210	0.71	53.0	53.7	—	193,499	193,499	6.43	6.99	21.6	195,765
Condo/Townhouse High Rise	54.3	50.5	28.8	383	1.12	0.45	123	123	0.42	31.1	31.5	—	113,744	113,744	3.78	4.11	12.7	115,076
Total	147	136	77.8	1,036	3.02	1.21	332	333	1.13	84.1	85.2	—	307,242	307,242	10.2	11.1	34.3	310,842
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	92.3	85.7	54.1	610	1.82	0.76	209	210	0.72	53.0	53.7	—	184,656	184,656	6.78	7.41	0.56	187,035

Condo/Townhouse High Rise	54.3	50.4	31.8	359	1.07	0.45	123	123	0.42	31.1	31.5	—	108,546	108,546	3.98	4.36	0.33	109,945
Total	147	136	85.9	969	2.88	1.21	332	333	1.14	84.1	85.2	—	293,202	293,202	10.8	11.8	0.89	296,980
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	15.8	14.7	9.20	106	0.32	0.13	35.8	35.9	0.12	9.07	9.20	—	29,272	29,272	1.05	1.15	1.47	29,644
Condo/Townhouse High Rise	9.28	8.61	5.41	62.4	0.19	0.08	21.0	21.1	0.07	5.33	5.41	—	17,207	17,207	0.62	0.68	0.86	17,425
Total	25.1	23.3	14.6	169	0.50	0.21	56.8	57.0	0.20	14.4	14.6	—	46,479	46,479	1.67	1.83	2.33	47,069

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	39,560	39,560	2.22	0.27	—	39,696
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	23,255	23,255	1.30	0.16	—	23,334
Total	—	—	—	—	—	—	—	—	—	—	—	—	62,815	62,815	3.52	0.43	—	63,030

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	39,560	39,560	2.22	0.27	—	39,696
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	23,255	23,255	1.30	0.16	—	23,334
Total	—	—	—	—	—	—	—	—	—	—	—	—	62,815	62,815	3.52	0.43	—	63,030
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	6,550	6,550	0.37	0.04	—	6,572
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	3,850	3,850	0.22	0.03	—	3,863
Total	—	—	—	—	—	—	—	—	—	—	—	—	10,400	10,400	0.58	0.07	—	10,435

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	39,560	39,560	2.22	0.27	—	39,696

Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	23,255	23,255	1.30	0.16	—	23,334
Total	—	—	—	—	—	—	—	—	—	—	—	—	62,815	62,815	3.52	0.43	—	63,030
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	39,560	39,560	2.22	0.27	—	39,696
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	23,255	23,255	1.30	0.16	—	23,334
Total	—	—	—	—	—	—	—	—	—	—	—	—	62,815	62,815	3.52	0.43	—	63,030
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	6,550	6,550	0.37	0.04	—	6,572
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	3,850	3,850	0.22	0.03	—	3,863
Total	—	—	—	—	—	—	—	—	—	—	—	—	10,400	10,400	0.58	0.07	—	10,435

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

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

Apartme Mid Rise	1.51	0.76	12.9	5.50	0.08	1.04	—	1.04	1.04	—	1.04	—	16,402	16,402	1.45	0.03	—	16,447
Condo/T ownhou se High Rise	0.89	0.44	7.60	3.23	0.05	0.61	—	0.61	0.61	—	0.61	—	9,641	9,641	0.85	0.02	—	9,668
Total	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	26,043	26,043	2.30	0.05	—	26,115
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	1.51	0.76	12.9	5.50	0.08	1.04	—	1.04	1.04	—	1.04	—	16,402	16,402	1.45	0.03	—	16,447
Condo/T ownhou se High Rise	0.89	0.44	7.60	3.23	0.05	0.61	—	0.61	0.61	—	0.61	—	9,641	9,641	0.85	0.02	—	9,668
Total	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	26,043	26,043	2.30	0.05	—	26,115
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	0.28	0.14	2.36	1.00	0.02	0.19	—	0.19	0.19	—	0.19	—	2,715	2,715	0.24	0.01	—	2,723
Condo/T ownhou se High Rise	0.16	0.08	1.39	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,596	1,596	0.14	< 0.005	—	1,601
Total	0.44	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	—	4,312	4,312	0.38	0.01	—	4,324

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
-------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.51	0.76	12.9	5.50	0.08	1.04	—	1.04	1.04	—	1.04	—	16,402	16,402	1.45	0.03	—	16,447
Condo/Townhouse High Rise	0.89	0.44	7.60	3.23	0.05	0.61	—	0.61	0.61	—	0.61	—	9,641	9,641	0.85	0.02	—	9,668
Total	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	26,043	26,043	2.30	0.05	—	26,115
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.51	0.76	12.9	5.50	0.08	1.04	—	1.04	1.04	—	1.04	—	16,402	16,402	1.45	0.03	—	16,447
Condo/Townhouse High Rise	0.89	0.44	7.60	3.23	0.05	0.61	—	0.61	0.61	—	0.61	—	9,641	9,641	0.85	0.02	—	9,668
Total	2.40	1.20	20.5	8.73	0.13	1.66	—	1.66	1.66	—	1.66	—	26,043	26,043	2.30	0.05	—	26,115
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.28	0.14	2.36	1.00	0.02	0.19	—	0.19	0.19	—	0.19	—	2,715	2,715	0.24	0.01	—	2,723
Condo/Townhouse High Rise	0.16	0.08	1.39	0.59	0.01	0.11	—	0.11	0.11	—	0.11	—	1,596	1,596	0.14	< 0.005	—	1,601
Total	0.44	0.22	3.74	1.59	0.02	0.30	—	0.30	0.30	—	0.30	—	4,312	4,312	0.38	0.01	—	4,324

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17,861	17,563	343	21,687	39.3	2,988	—	2,988	2,974	—	2,974	318,819	132,947	451,766	294	22.9	—	465,937
Consumer Products	236	236	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	18.9	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	59.7	56.6	6.01	655	0.03	0.29	—	0.29	0.22	—	0.22	—	1,741	1,741	0.07	0.01	—	1,747
Total	18,175	17,874	349	22,342	39.3	2,988	—	2,988	2,974	—	2,974	318,819	134,688	453,508	294	22.9	—	467,685
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	17,861	17,563	343	21,687	39.3	2,988	—	2,988	2,974	—	2,974	318,819	132,947	451,766	294	22.9	—	465,937
Consumer Products	236	236	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	18.9	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	18,115	17,818	343	21,687	39.3	2,988	—	2,988	2,974	—	2,974	318,819	132,947	451,766	294	22.9	—	465,937
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	732	720	14.1	889	1.61	123	—	123	122	—	122	11,858	4,945	16,803	10.9	0.85	—	17,330

Consum Products	43.0	43.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	3.45	3.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	5.38	5.09	0.54	58.9	< 0.005	0.03	—	0.03	0.02	—	0.02	—	142	142	0.01	< 0.005	—	143
Total	784	772	14.6	948	1.61	123	—	123	122	—	122	11,858	5,087	16,945	10.9	0.85	—	17,473

4.3.2. Mitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	580	287	99.8	2,774	12.1	405	—	405	390	—	390	95,143	19,537	114,680	470	0.04	—	126,430
Consum er Product s	236	236	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	18.9	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	59.7	56.6	6.01	655	0.03	0.29	—	0.29	0.22	—	0.22	—	1,741	1,741	0.07	0.01	—	1,747
Total	894	598	106	3,429	12.1	405	—	405	390	—	390	95,143	21,278	116,421	470	0.05	—	128,177
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	580	287	99.8	2,774	12.1	405	—	405	390	—	390	95,143	19,537	114,680	470	0.04	—	126,430

Consum Products	236	236	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	18.9	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	834	541	99.8	2,774	12.1	405	—	405	390	—	390	95,143	19,537	114,680	470	0.04	—	126,430
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	23.8	11.8	4.09	114	0.50	16.6	—	16.6	16.0	—	16.0	3,539	727	4,265	17.5	< 0.005	—	4,702
Consum er Product s	43.0	43.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architect ural Coating s	3.45	3.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landsca pe Equipm ent	5.38	5.09	0.54	58.9	< 0.005	0.03	—	0.03	0.02	—	0.02	—	142	142	0.01	< 0.005	—	143
Total	75.6	63.3	4.63	173	0.50	16.6	—	16.6	16.0	—	16.0	3,539	869	4,408	17.5	< 0.005	—	4,845

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	487	3,015	3,501	50.1	1.21	—	5,113

Condo/T High Rise	—	—	—	—	—	—	—	—	—	—	—	286	1,742	2,028	29.4	0.71	—	2,975
Total	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	487	3,015	3,501	50.1	1.21	—	5,113
Condo/T ownhou se High Rise	—	—	—	—	—	—	—	—	—	—	—	286	1,742	2,028	29.4	0.71	—	2,975
Total	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartme nts Mid Rise	—	—	—	—	—	—	—	—	—	—	—	80.6	499	580	8.29	0.20	—	846
Condo/T ownhou se High Rise	—	—	—	—	—	—	—	—	—	—	—	47.4	288	336	4.87	0.12	—	493
Total	—	—	—	—	—	—	—	—	—	—	—	128	787	915	13.2	0.32	—	1,339

4.4.2. Mitigated

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

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

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	487	3,015	3,501	50.1	1.21	—	5,113
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	286	1,742	2,028	29.4	0.71	—	2,975
Total	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	487	3,015	3,501	50.1	1.21	—	5,113
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	286	1,742	2,028	29.4	0.71	—	2,975
Total	—	—	—	—	—	—	—	—	—	—	—	773	4,756	5,529	79.5	1.92	—	8,088
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	80.6	499	580	8.29	0.20	—	846
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	47.4	288	336	4.87	0.12	—	493
Total	—	—	—	—	—	—	—	—	—	—	—	128	787	915	13.2	0.32	—	1,339

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769
Total	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769
Total	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	855	0.00	855	85.5	0.00	—	2,992
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	652	0.00	652	65.1	0.00	—	2,280
Total	—	—	—	—	—	—	—	—	—	—	—	1,507	0.00	1,507	151	0.00	—	5,272

4.5.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769
Total	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	5,166	0.00	5,166	516	0.00	—	18,073
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	3,935	0.00	3,935	393	0.00	—	13,769
Total	—	—	—	—	—	—	—	—	—	—	—	9,101	0.00	9,101	910	0.00	—	31,841
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	855	0.00	855	85.5	0.00	—	2,992

Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	652	0.00	652	65.1	0.00	—	2,280
Total	—	—	—	—	—	—	—	—	—	—	—	1,507	0.00	1,507	151	0.00	—	5,272

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.7	49.7
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29.2	29.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.7	49.7
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29.2	29.2

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.23	8.23
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.84	4.84
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1

4.6.2. Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.7	49.7
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29.2	29.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49.7	49.7

Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29.2	29.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	78.9	78.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.23	8.23
Condo/Townhouse High Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.84	4.84
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

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

Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	43,380	39,153	32,615	15,051,968	296,304	267,434	222,771	102,811,244
Condo/Townhouse High Rise	25,500	23,015	19,172	8,847,975	174,176	157,205	130,951	60,435,379

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	43,380	39,153	32,615	15,051,968	296,304	267,434	222,771	102,811,244
Condo/Townhouse High Rise	25,500	23,015	19,172	8,847,975	174,176	157,205	130,951	60,435,379

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	2531
Gas Fireplaces	3977
Propane Fireplaces	0
Electric Fireplaces	0

No Fireplaces	723
Conventional Wood Stoves	0
Catalytic Wood Stoves	362
Non-Catalytic Wood Stoves	362
Pellet Wood Stoves	0
Condo/Townhouse High Rise	—
Wood Fireplaces	1488
Gas Fireplaces	2338
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	425
Conventional Wood Stoves	0
Catalytic Wood Stoves	213
Non-Catalytic Wood Stoves	213
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	582
Propane Fireplaces	0
Electric Fireplaces	25
No Fireplaces	723
Conventional Wood Stoves	0
Catalytic Wood Stoves	362
Non-Catalytic Wood Stoves	362
Pellet Wood Stoves	380

Condo/Townhouse High Rise	—
Wood Fireplaces	0
Gas Fireplaces	342
Propane Fireplaces	0
Electric Fireplaces	15
No Fireplaces	425
Conventional Wood Stoves	0
Catalytic Wood Stoves	213
Non-Catalytic Wood Stoves	213
Pellet Wood Stoves	223

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
22317120	7,439,040	0.00	0.00	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	24,515,990	589	0.0330	0.0040	51,177,094
Condo/Townhouse High Rise	14,411,197	589	0.0330	0.0040	30,083,354

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	24,515,990	589	0.0330	0.0040	51,177,094
Condo/Townhouse High Rise	14,411,197	589	0.0330	0.0040	30,083,354

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	254,012,132	26,199,170
Condo/Townhouse High Rise	149,315,569	11,851,102

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	254,012,132	26,199,170
Condo/Townhouse High Rise	149,315,569	11,851,102

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	9,585	—
Condo/Townhouse High Rise	7,302	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	9,585	—
Condo/Townhouse High Rise	7,302	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse High Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse High Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.16	annual days of extreme heat
Extreme Precipitation	3.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	12.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	37.6

AQ-PM	34.8
AQ-DPM	67.8
Drinking Water	25.3
Lead Risk Housing	62.6
Pesticides	46.0
Toxic Releases	15.4
Traffic	52.2
Effect Indicators	—
CleanUp Sites	32.2
Groundwater	0.00
Haz Waste Facilities/Generators	37.7
Impaired Water Bodies	43.8
Solid Waste	0.00
Sensitive Population	—
Asthma	33.3
Cardio-vascular	40.2
Low Birth Weights	39.9
Socioeconomic Factor Indicators	—
Education	62.7
Housing	32.7
Linguistic	40.4
Poverty	63.2
Unemployment	22.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	20.09495701
Employed	15.8475555
Median HI	24.6888233
Education	—
Bachelor's or higher	14.74400103
High school enrollment	100
Preschool enrollment	4.106249198
Transportation	—
Auto Access	52.9449506
Active commuting	27.42204543
Social	—
2-parent households	14.59001668
Voting	35.17259079
Neighborhood	—
Alcohol availability	12.13909919
Park access	55.83215706
Retail density	82.44578468
Supermarket access	87.70691646
Tree canopy	26.12601052
Housing	—
Homeownership	25.25343257
Housing habitability	49.49313486
Low-inc homeowner severe housing cost burden	60.43885538
Low-inc renter severe housing cost burden	83.42101886
Uncrowded housing	35.53188759
Health Outcomes	—
Insured adults	12.03644296
Arthritis	50.5

Asthma ER Admissions	44.3
High Blood Pressure	84.3
Cancer (excluding skin)	80.0
Asthma	12.1
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	11.3
Diagnosed Diabetes	39.3
Life Expectancy at Birth	44.2
Cognitively Disabled	23.2
Physically Disabled	65.4
Heart Attack ER Admissions	65.5
Mental Health Not Good	7.6
Chronic Kidney Disease	55.3
Obesity	19.4
Pedestrian Injuries	54.5
Physical Health Not Good	17.6
Stroke	39.4
Health Risk Behaviors	—
Binge Drinking	22.7
Current Smoker	5.1
No Leisure Time for Physical Activity	17.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	20.9
Elderly	97.2
English Speaking	9.4
Foreign-born	55.6

Outdoor Workers	15.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.3
Traffic Density	72.0
Traffic Access	60.3
Other Indices	—
Hardship	63.0
Other Decision Support	—
2016 Voting	50.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0
Healthy Places Index Score for Project Location (b)	18.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on plan specific data.
Operations: Vehicle Data	Based on SANDAG trip rates

Land Use CalEEMod Input Data, Existing and Proposed

Project Description Land Use	2050 General Plan Density Maximums	Equivalent CalEEMod Land Use Code**	Units		Population(R) 2030 Plan
			Existing Conditions	2030 Plan	
Mobile Home Park		Mobile Home Park	1,801		
High Density Residential (HD)	31 - 45 units per 1 gross acre	Apartments High-Rise		8,935	8,883
Low Density Residential (LD)	2 units per 1 gross acre	Single Family	21,397	2,472	2,470
Medium Density Residential (MD)	15 units per 1 gross acre	Apartment Low-Rise	12,938	9,973	9,971
Medium High Density Residential (MHD)	16 to 30 units per 1 gross acre	Condo/Townhouse		5,516	5,474
Medium Low Density Residential (MLD)	2.1 - 5.0 units per gross acre	Single Family		8,209	8,217
Mixed Use (MU), Mixed Use Corridor (MU-C), Mixed Use General (MU-G)		Apartments Mid-Rise		10,566(MU)	N/A
MU-C	21-45 units per 1 gross acre	Apartments Mid-Rise		N/A	12,513 (MU-C)
MU-G	45-80 units per 1 gross acre	Condo/Townhouse High Rise		N/A	9,533 (MU-G)
Open Space Residential (OSR)	1 unit per 2.5 gross acres; 1 unit per 5 gross acres, varying per slope	Single Family		24	24
Rural Residential (RR)	1 unit per 1; 1.5; 2.0; 4.0; gross acre varying per slope	Single Family		2,406	2,397
Commercial Office (CO)	Include professional office uses and retail trade is limited to ancillary uses that support the daytime activities of office uses, such as coffee shops, cafeterias, and delis; outlets for pickup and delivery of dry cleaning (where service is performed off site); and daycare	Office Park		N/A	N/A
Commercial Service (CS)	Preparation and assembly, wholesale uses that are ancillary to industrial uses, and major repair of automobiles and heavy equipment	Automobile Care Center		N/A	N/A
General Commercial (GC)	Community shopping centers; department stores; restaurants; financial institutions; automotive services; and sales and repair of consumer goods such as home appliances, furniture, etc. Group assembly and hotels/motels intended for transient visitors only are encouraged in this category	Regional Shopping Center		N/A	N/A
Industrial General (IG)	General manufacturing with moderate nuisance characteristics (i.e., noise, smoke, dust, odor, or glare) and heavy manufacturing which may create greater nuisance characteristics. The IG designation allows uses such as alcoholic beverage manufacturing and/or bottling, bakeries, chemical or glass manufacturing, manufacturing of large metal goods, and other similar goods which produce moderate to heavy nuisance characteristics	Manufacturing		N/A	N/A
Mixed Use (MU), Mixed Use Corridor (MU-C), Mixed Use General (MU-G)		Strip Mall		N/A	N/A
MU-C	retail, restaurant, or other active uses located at the street level.	Strip Mall		N/A	N/A
MU-G	retail, restaurant, or other active uses located at the street level	Strip Mall		N/A	N/A
Neighborhood Commercial (CN)		Convience Market		N/A	N/A
Open Space (OS)	Preserve, in their natural state, sensitive natural environments including, but not limited to, riparian areas, waterbodies, undeveloped flood plains, areas of biological significance, geologic formations and hazards. The OS designation allows the protection and preservation of these areas for future generations. It also includes deed-restricted open space in private development that is set aside for open space, habitat, and/or public safety purposes	City Park		N/A	N/A
Research Light Industrial (RLI)	Allows for employee-intensive uses including research and development, "clean" industry, technology centers, testing and developmental laboratories, creative offices, incubator industries and light manufacturing	Research and Development		N/A	N/A

Notes: Landscape area estimated based on 20% of total development area for all non-residential land uses.

ick Eng Data)	Development Aare (1000 Square Feet)				Estimated Landscaping (Square Feet)			Trip Rates				
	Existing Conditions	2030 Existing		2050 Plan	Existing Conditions	2030 Plan		SANDAG Appendix T9		CalEEMod Default		
						(Weekday)	Units	(Weekday)	(Saturday)	(Sunday)		
2050 Plan												
	9883.193364				988,319			5	Trips/DU	5	4.61	4.239999771
24,976		6277.553568	6241.019796	CalEEMod		627,755	624,102	6	Trips/DU	4.449999809	4.530000021	3.589999914
7,111	302614.6741	34961.13839	34932.85488	CalEEMod	20,948,448	28,954,183	28,930,757	10	Trips/DU	9.439999958	9.539999962	8.550000191
28,103	35223.705	27163.89839	27146.0475	CalEEMod	3,522,371	2,716,390	2,714,605	8	Trips/DU	7.320000172	8.140000343	6.280000021
15,367		15017.31	14902.965	CalEEMod		1,501,731	1,490,297	6	Trips/DU	7.320000172	8.140000343	6.280000021
23,374		116098.682	116211.8509	CalEEMod		96,150,843	96,244,546	10	Trips/DU	9.439999958	9.539999962	8.550000191
N/A		12111.97126	N/A	CalEEMod		1,211,197	N/A	6	Trips/DU	5.440000057	4.909999847	4.090000153
36,163		N/A	14343.84626	CalEEMod		N/A	1,434,385	6	Trips/DU	5.440000057	4.909999847	4.090000153
27,551		N/A	6488.397036	CalEEMod		N/A	648,840	6	Trips/DU	5.440000057	4.909999847	4.090000153
70		339.4285369	339.4285369	CalEEMod		281,109	281,109	12	Trips/DU	9.439999958	9.539999962	8.550000191
6,191		34027.71293	33900.42625	CalEEMod		28,181,134	28,075,718	12	Trips/DU	9.439999958	9.539999962	8.550000191
N/A	1,758	1,090	866		351,527	218,040	173,210	20	Trips/1000SF	11.069999969	1.639999986	0.75999999
N/A		516	518			103,223	103,509	8	Trips/1000SF	23.71999931	23.71999931	11.88000011
N/A	5,184	10,404	8,456		1,036,742	2,080,739	1,691,233	50	Trips/1000SF	37.75	46.11999893	21.10000038
N/A	2,897	2,897	2,897		579,478	579,478	579,478	10	Trips/1000SF	3.930000067	6.420000076	5.090000153
N/A		5,753				1,150,588		120	Trips/1000SF			
N/A			242				48,449	120	Trips/1000SF	44.31999969	42.04000092	20.43000031
N/A			519				103,812	120	Trips/1000SF	44.31999969	42.04000092	20.43000031
N/A		4,337	2,230			867,462	446,045	120	Trips/1000SF	762.2800293	1084.170044	901.1699829
N/A		0	0			0	0	50	Trips/1000SF	0.78	1.96	2.19
N/A	11,316	12,105	12,091		2,263,194	2,421,054	2,418,251	16	Trips/1000SF	11.26000023	1.899999976	1.110000014

Adjusted CalEEMod Default by SANDAG Weekday		
(Weekday)	(Saturday)	(Sunday)
5	4.6100	4.2400
6	6.1079	4.8404
10	10.1059	9.0572
8	8.8962	6.8634
6	6.6721	5.1475
10	10.1059	9.0572
6	5.4154	4.5110
6	5.4154	4.5110
6	5.4154	4.5110
12	12.1271	10.8686
12	12.1271	10.8686
20	2.9630	1.3731
8	8.0000	4.0067
50	61.0861	27.9470
10	16.3359	12.9517
120	113.8267	55.3159
120	113.8267	55.3159
120	170.6727	141.8644
50	125.6410	140.3846
16	2.6998	1.5773

APPENDIX T9

***SANDAG's (Not So) Brief Guide of Vehicular
Traffic Generation Rates for the San Diego Region***

(NOT SO)
BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES
FOR THE SAN DIEGO REGION

APRIL 2002



401 B Street, Suite 800
San Diego, California 92101
(619) 699-1900 • Fax (619) 699-1950

NOTE: This listing only represents a **guide** of average, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates (both local and national) are subject to change as future documentation becomes available, or as regional sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual. **Always check with local jurisdictions for their preferred or applicable rates.**

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY] ^p	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio) Between 6:00-9:30 A.M. Between 3:00-6:30 P.M.				TRIP LENGTH (Miles) ^t
AGRICULTURE (Open Space)	[80:18:2]	2/acre**					10.8
AIRPORT	[78:20:2]						12.5
Commercial		60/acre, 100/flight, 70/1000 sq. ft. * **	5%	(6:4)	8%	(5:5)	
General Aviation		6/acre, 2/flight, 6/based aircraft * **	9%	(7:3)	15%	(5:5)	
Heliports		100/acre**					
AUTOMOBILE ^s							
Car Wash							
Automatic		900/site, 600/acre**	4%	(5:5)	9%	(5:5)	
Self-serve		100/wash stall**	4%	(5:5)	8%	(5:5)	
Gasoline	[21:51:28]						2.8
with/Food Mart		160/vehicle fueling space**	7%	(5:5)	8%	(5:5)	
with/Food Mart & Car Wash		155/vehicle fueling space**	8%	(5:5)	9%	(5:5)	
Older Service Station Design		150/vehicle fueling space, 900/station**	7%	(5:5)	9%	(5:5)	
Sales (Dealer & Repair)		50/1000 sq. ft., 300/acre, 60/service stall* **	5%	(7:3)	8%	(4:6)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall*	8%	(7:3)	11%	(4:6)	
Auto Parts Sales		60/1000 sq. ft. **	4%		10%		
Quick Lube		40/service stall**	7%	(6:4)	10%	(5:5)	
Tire Store		25/1000 sq. ft., 30/service stall**	7%	(6:4)	11%	(5:5)	
CEMETERY		5/acre*					
CHURCH (or Synagogue)	[64:25:11]	9/1000 sq. ft., 30/acre** (quadruple rates for Sunday, or days of assembly)	5%	(6:4)	8%	(5:5)	5.1
COMMERCIAL/RETAIL ^s							
Super Regional Shopping Center (More than 80 acres, more than 800,000 sq. ft., w/usually 3+ major stores)		35/1000 sq. ft., ^c 400/acre*	4%	(7:3)	10%	(5:5)	
Regional Shopping Center	[54:35:11]	50/1000 sq. ft., ^c 500/acre*	4%	(7:3)	9%	(5:5)	5.2
(40-80acres, 400,000-800,000 sq. ft., w/usually 2+ major stores)							
Community Shopping Center	[47:31:22]	80/1000 sq. ft., 700/acre* **	4%	(6:4)	10%	(5:5)	3.6
(15-40 acres, 125,000-400,000 sq. ft., w/usually 1 major store, detached restaurant(s), grocery and drugstore)							
Neighborhood Shopping Center (Less than 15 acres, less than 125,000 sq. ft., w/usually grocery & drugstore, cleaners, beauty & barber shop, & fast food services)		120/1000 sq. ft., 1200/acre* **	4%	(6:4)	10%	(5:5)	
Commercial Shops	[45:40:15]						
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3%	(6:4)	9%	(5:5)	4.3
Electronics Superstore		50/1000 sq. ft**			10%	(5:5)	
Factory Outlet		40/1000 sq. ft.**	3%	(7:3)	9%	(5:5)	
Supermarket		150/1000 sq. ft., 2000/acre* **	4%	(7:3)	10%	(5:5)	
Drugstore		90/1000 sq. ft.**	4%	(6:4)	10%	(5:5)	
Convenience Market (15-16 hours)		500/1000 sq. ft.**	8%	(5:5)	8%	(5:5)	
Convenience Market (24 hours)		700/1000 sq. ft.**	9%	(5:5)	7%	(5:5)	
Convenience Market (w/gasoline pumps)		850/1000 sq. ft., 550/vehicle fueling space**	6%	(5:5)	7%	(5:5)	
Discount Club		60/1000 sq. ft., 600/acre* **	1%	(7:3)	9%	(5:5)	
Discount Store		60/1000 sq. ft., 600/acre**	3%	(6:4)	8%	(5:5)	
Furniture Store		6/1000 sq. ft., 100/acre**	4%	(7:3)	9%	(5:5)	
Lumber Store		30/1000 sq. ft., 150/acre**	7%	(6:4)	9%	(5:5)	
Home Improvement Superstore		40/1000 sq. ft.**	5%	(6:4)	8%	(5:5)	
Hardware/Paint Store		60/1000 sq. ft., 600/acre**	2%	(6:4)	9%	(5:5)	
Garden Nursery		40/1000 sq. ft., 90/acre**	3%	(6:4)	10%	(5:5)	
Mixed Use: Commercial (w/supermarket)/Residential		110/1000 sq. ft., 2000/acre* (commercial only)	3%	(6:4)	9%	(5:5)	
		5/dwelling unit, 200/acre* (residential only)	9%	(3:7)	13%	(6:4)	
EDUCATION							
University (4 years)	[91:9:0]	2.4/student, 100 acre*	10%	(8:2)	9%	(3:7)	8.9
Junior College (2 years)	[92:7:1]	1.2/student, 24/1000 sq. ft., 120/acre* **	12%	(8:2)	9%	(6:4)	9.0
High School	[75:19:6]	1.3/student, 15/1000 sq. ft., 60/acre* **	20%	(7:3)	10%	(4:6)	4.8
Middle/Junior High	[63:25:12]	1.4/student, 12/1000 sq. ft. 50/acre**	30%	(6:4)	9%	(4:6)	5.0
Elementary	[57:25:10]	1.6/student, 14/1000 sq. ft., 90/acre* **	32%	(6:4)	9%	(4:6)	3.4
Day Care	[28:58:14]	5/child, 80/1000 sq. ft.**	17%	(5:5)	18%	(5:5)	3.7
FINANCIAL ^s	[35:42:23]						3.4
Bank (Walk-In only)		150/1000 sq. ft., 1000/acre* **	4%	(7:3)	8%	(4:6)	
with Drive-Through		200/1000 sq. ft., 1500/acre*	5%	(6:4)	10%	(5:5)	
Drive-Through only		250 (125 one-way)/lane*	3%	(5:5)	13%	(5:5)	
Savings & Loan		60/1000 sq. ft., 600/acre**	2%		9%		
Drive-Through only		100 (50 one-way)/lane**	4%		15%		
HOSPITAL	[73:25:2]						8.3
General		20/bed, 25/1000 sq. ft., 250/acre*	8%	(7:3)	10%	(4:6)	
Convalescent/Nursing		3/bed**	7%	(6:4)	7%	(4:6)	
INDUSTRIAL							
Industrial/Business Park (commercial included)	[79:19:2]	16/1000 sq. ft., 200/acre* **	12%	(8:2)	12%	(2:8)	9.0
Industrial Park (no commercial)		8/1000 sq. ft., 90/acre**	11%	(9:1)	12%	(2:8)	
Industrial Plant (multiple shifts)	[92:5:3]	10/1000 sq. ft., 120/acre*	14%	(8:2)	15%	(3:7)	11.7
Manufacturing/Assembly		4/1000 sq. ft., 50/acre**	19%	(9:1)	20%	(2:8)	
Warehousing		5/1000 sq. ft., 60/acre**	13%	(7:3)	15%	(4:6)	
Storage		2/1000 sq. ft., 0.2/vault, 30/acre*	6%	(5:5)	9%	(5:5)	
Science Research & Development		8/1000 sq. ft., 80/acre*	16%	(9:1)	14%	(1:9)	
Landfill & Recycling Center		6/acre	11%	(5:5)	10%	(4:6)	

(OVER)

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista and County of San Diego.
ADVISORY/LIAISON MEMBERS: California Department of Transportation, County Water Authority, U.S. Department of Defense, S.D. Unified Port District and Tijuana/Baja California.

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY] ^P	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio)		TRIP LENGTH (Miles) ^L		
			Between 6:00-9:30 A.M.	Between 3:00-6:30 P.M.			
LIBRARY	[44:44:12]	50/1000 sq. ft., 400/acre**	2%	(7:3)	10%	(5:5)	3.9
LODGING	[58:38:4]						7.6
Hotel (w/convention facilities/restaurant)		10/occupied room, 300/acre	6%	(6:4)	8%	(6:4)	
Motel		9/occupied room, 200/acre*	8%	(4:6)	9%	(6:4)	
Resort Hotel		8/occupied room, 100/acre*	5%	(6:4)	7%	(4:6)	
Business Hotel		7/occupied room**	8%	(4:6)	9%	(6:4)	
MILITARY	[82:16:2]	2.5/military & civilian personnel*	9%	(9:1)	10%	(2:8)	11.2
OFFICE							
Standard Commercial Office	[77:19:4]	20/1000 sq. ft., ^O 300/acre*	14%	(9:1)	13%	(2:8)	8.8
(less than 100,000 sq. ft.)							
Large (High-Rise) Commercial Office	[82:15:3]	17/1000 sq. ft., ^O 600/acre*	13%	(9:1)	14%	(2:8)	10.0
(more than 100,000 sq. ft., 6 + stories)							
Office Park (400,000 + sq. ft.)		12/1000 sq.ft., 200/acre* **	13%	(9:1)	13%	(2:8)	
Single Tenant Office		14/1000 sq. ft., 180/acre*	15%	(9:1)	15%	(2:8)	8.8
Corporate Headquarters		7/1000 sq. ft., 110/acre*	17%	(9:1)	16%	(1:9)	
Government (Civic Center)	[50:34:16]	30/1000 sq. ft.**	9%	(9:1)	12%	(3:7)	6.0
Post Office							
Central/Walk-In Only		90/1000 sq. ft.**	5%		7%		
Community (not including mail drop lane)		200/1000 sq. ft., 1300/acre*	6%	(6:4)	9%	(5:5)	
Community (w/mail drop lane)		300/1000 sq. ft., 2000/acre*	7%	(5:5)	10%	(5:5)	
Mail Drop Lane only		1500 (750 one-way)/lane*	7%	(5:5)	12%	(5:5)	
Department of Motor Vehicles		180/1000 sq. ft., 900/acre**	6%	(6:4)	10%	(4:6)	
Medical-Dental	[60:30:10]	50/1000 sq. ft., 500/acre*	6%	(8:2)	11%	(3:7)	6.4
PARKS	[66:28:6]		4%		8%		5.4
City (developed w/meeting rooms and sports facilities)		50/acre*	13%	(5:5)	9%	(5:5)	
Regional (developed)		20/acre*					
Neighborhood/County (undeveloped)		5/acre (add for specific sport uses), 6/picnic site* **					
State (average 1000 acres)		1/acre, 10/picnic site**					
Amusement (Theme)		80/acre, 130/acre (summer only)**			6%	(6:4)	
San Diego Zoo		115/acre*					
Sea World		80/acre*					
RECREATION							
Beach, Ocean or Bay	[52:39:9]	600/1000 ft. shoreline, 60/acre*					6.3
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre*					
Bowling Center		30/1000 sq. ft., 300/acre, 30/lane **	7%	(7:3)	11%	(4:6)	
Campground		4/campsite**	4%		8%		
Golf Course		7/acre, 40/hole, 700/course* **	7%	(8:2)	9%	(3:7)	
Driving Range only		70/acre, 14/tee box*	3%	(7:3)	9%	(5:5)	
Marinas		4/berth, 20/acre* **	3%	(3:7)	7%	(6:4)	
Multi-purpose (miniature golf, video arcade, batting cage, etc.)		90/acre	2%		6%		
Racquetball/Health Club		30/1000 sq. ft., 300/acre, 40/court*	4%	(6:4)	9%	(6:4)	
Tennis Courts		16/acre, 30/court**	5%		11%	(5:5)	
Sports Facilities							
Outdoor Stadium		50/acre, 0.2/seat*					
Indoor Arena		30/acre, 0.1/seat*					
Racetrack		40/acre, 0.6 seat*					
Theaters (multiplex w/matinee)	[66:17:17]	80/1000 sq. ft., 1.8/seat, 360/screen*	1/3%		8%	(6:4)	6.1
RESIDENTIAL	[86:11:3]						7.9
Estate, Urban or Rural		12/dwelling unit * ^R	8%	(3:7)	10%	(7:3)	
(average 1-2 DU/acre)							
Single Family Detached		10/dwelling unit * ^R	8%	(3:7)	10%	(7:3)	
(average 3-6 DU/acre)							
Condominium		8/dwelling unit * ^R	8%	(2:8)	10%	(7:3)	
(or any multi-family 6-20 DU/acre)							
Apartment		6/dwelling unit * ^R	8%	(2:8)	9%	(7:3)	
(or any multi-family units more than 20 DU/acre)							
Military Housing (off-base, multi-family)							
(less than 6 DU/acre)		8/dwelling unit	7%	(3:7)	9%	(6:4)	
(6-20 DU/acre)		6/dwelling unit	7%	(3:7)	9%	(6:4)	
Mobile Home							
Family		5/dwelling unit, 40/acre*	8%	(3:7)	11%	(6:4)	
Adults Only		3/dwelling unit, 20/acre*	9%	(3:7)	10%	(6:4)	
Retirement Community		4/dwelling unit**	5%	(4:6)	7%	(6:4)	
Congregate Care Facility		2.5/dwelling unit**	4%	(6:4)	8%	(5:5)	
RESTAURANT^S	[51:37:12]						4.7
Quality		100/1000 sq. ft., 3/seat, 500/acre* **	1%	(6:4)	8%	(7:3)	
Sit-down, high turnover		160/1000 sq. ft., 6/seat, 1000/acre* **	8%	(5:5)	8%	(6:4)	
Fast Food (w/drive-through)		650/1000 sq. ft., 20/seat, 3000/acre* **	7%	(5:5)	7%	(5:5)	
Fast Food (without drive-through)		700/1000 sq. ft.**	5%	(6:4)	7%	(5:5)	
Delicatessen (7am-4pm)		150/1000 sq. ft., 11/seat*	9%	(6:4)	3%	(3:7)	
TRANSPORTATION							
Bus Depot		25/1000 sq. ft.**					
Truck Terminal		10/1000 sq. ft., 7/bay, 80/acre**	9%	(4:6)	8%	(5:5)	
Waterport/Marine Terminal		170/berth, 12/acre**					
Transit Station (Light Rail w/parking)		300/acre, 2 ^{1/2} /parking space (4/occupied)**	14%	(7:3)	15%	(3:7)	
Park & Ride Lots		400/acre (600/paved acre), 5/parking space (8/occupied)* **	14%	(7:3)	15%	(3:7)	

* Primary source: *San Diego Traffic Generators*.

* Other sources: ITE Trip Generation Report [6th Edition], Trip Generation Rates (other agencies and publications), various SANDAG & CALTRANS studies, reports and estimates.

^a Trip category percentage ratios are daily from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (draft SANDAG *Analysis of Trip Diversion*, revised November, 1990):

PRIMARY - one trip directly between origin and primary destination.

DIVERTED - linked trip (having one or more stops along the way to a primary destination) whose distance compared to direct distance ≥ 1 mile.

PASS-BY - undiverted or diverted < 1 mile.

^L Trip lengths are average weighted for all trips to and from general land use site. (All trips system-wide average length = 6.9 miles)

c Fitted curve equation: $\ln(T) = 0.502 \ln(x) + 6.945$ } T = total trips, x = 1,000 sq. ft.

o Fitted curve equation: $\ln(T) = 0.756 \ln(x) + 3.950$ } T = total trips, x = 1,000 sq. ft.

^R Fitted curve equation: $t = -2.169 \ln(d) + 12.85$ $t = \text{trips/DU}$, $d = \text{density (DU/acre)}$, $\text{DU} = \text{dwelling unit}$

^s Suggested PASS-BY [undiverted or diverted < 1 mile] percentages for trip rate reductions only during P.M. peak period (based on combination of local data/review and Other sources**):

COMMERCIAL/RETAIL	
Regional Shopping Center	20%
Community " "	30%
Neighborhood " "	40%
Specialty Retail/Strip Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%
FINANCIAL	
Bank	25%
AUTOMOBILE	
Gasoline Station	50%
RESTAURANT	
Quality	10%
Sit-down high turnover	20%
Fast Food	40%

Trip Reductions - in order to help promote regional "smart growth" policies, and acknowledge San Diego's expanding mass transit system, consider vehicle trip rate reductions (with proper documentation and necessary adjustments for peak periods). The following are some examples:

- [1] A 5% daily trip reduction for land uses with transit access or near transit stations accessible within 1/4 mile.
- [2] Up to 10% daily trip reduction for mixed-use developments where residential and commercial retail are combined (demonstrate mode split of walking trips to replace vehicular trips).