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

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Appendix B: Air Quality, Energy, and GHG Supporting Information

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5566.0001Oak Hill Apartments Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	5566.0001Oak Hill Apartments
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	7.60
Location	37.94448783364922, -122.5016430190033
County	Marin
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	905
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

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	250	Dwelling Unit	0.00	282,000	35,000	—	600	—
Enclosed Parking with Elevator	350	Space	1.67	137,000	0.00	—	—	—

Other Asphalt Surfaces	4.23	Acre	4.23	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Transportation	T-1	Increase Residential Density
Transportation	T-4	Integrate A ordable and Below Market Rate Housing
Transportation	T-34*	Provide Bike Parking

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	6.80	27.2	60.7	41.8	0.37	1.81	10.2	11.7	1.66	3.98	5.64	—	32,271	32,271	3.91	4.64	61.6	33,815
Mit.	4.77	27.1	51.0	39.9	0.37	0.60	10.2	10.8	0.59	3.98	4.08	—	32,271	32,271	3.91	4.64	61.6	33,815
% Reduced	30%	< 0.5%	16%	5%	—	67%	—	7%	64%	—	28%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.80	28.4	63.0	41.8	0.37	1.46	10.2	11.7	1.38	3.33	4.71	—	32,262	32,262	3.90	4.64	1.60	33,745
Mit.	4.77	27.7	53.3	39.8	0.37	0.60	10.2	10.8	0.59	3.33	3.93	—	32,262	32,262	3.90	4.64	1.60	33,745

% Reduced	30%	2%	15%	5%	—	59%	—	7%	57%	—	17%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	11.4	11.1	16.5	0.03	0.41	1.96	2.37	0.38	0.78	1.16	—	4,128	4,128	0.30	0.33	3.88	4,201
Mit.	1.12	11.3	8.91	17.7	0.03	0.10	1.96	2.03	0.09	0.78	0.85	—	4,128	4,128	0.30	0.33	3.88	4,201
% Reduced	39%	1%	20%	-7%	—	76%	—	14%	75%	—	27%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	2.08	2.03	3.00	0.01	0.07	0.36	0.43	0.07	0.14	0.21	—	683	683	0.05	0.05	0.64	696
Mit.	0.20	2.06	1.63	3.23	0.01	0.02	0.36	0.37	0.02	0.14	0.15	—	683	683	0.05	0.05	0.64	696
% Reduced	39%	1%	20%	-7%	—	76%	—	14%	75%	—	27%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	6.80	4.02	60.7	41.8	0.37	1.81	10.2	11.7	1.66	3.98	5.64	—	32,271	32,271	3.91	4.64	61.6	33,815
2024	2.61	2.16	14.0	24.3	0.03	0.52	2.32	2.84	0.48	0.56	1.03	—	5,896	5,896	0.26	0.30	12.6	6,003
2025	0.33	27.2	1.00	2.99	< 0.005	0.03	0.39	0.42	0.03	0.09	0.12	—	543	543	0.01	0.02	1.66	550
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	6.80	2.63	63.0	41.8	0.37	1.46	10.2	11.7	1.38	3.33	4.71	—	32,262	32,262	3.90	4.64	1.60	33,745
2024	2.58	2.13	14.2	23.3	0.03	0.52	2.32	2.84	0.48	0.56	1.03	—	5,755	5,755	0.28	0.30	0.33	5,852
2025	2.38	28.4	13.3	22.5	0.03	0.45	2.32	2.77	0.42	0.56	0.97	—	5,692	5,692	0.27	0.29	0.31	5,787

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.45	1.04	11.1	11.1	0.03	0.41	1.96	2.37	0.38	0.78	1.16	—	3,561	3,561	0.30	0.33	2.59	3,669
2024	1.84	1.52	10.1	16.5	0.02	0.37	1.65	2.02	0.34	0.40	0.74	—	4,128	4,128	0.20	0.22	3.88	4,201
2025	0.26	11.4	1.36	2.48	< 0.005	0.05	0.19	0.24	0.05	0.04	0.09	—	435	435	0.02	0.01	0.35	439
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.27	0.19	2.03	2.02	0.01	0.07	0.36	0.43	0.07	0.14	0.21	—	590	590	0.05	0.05	0.43	607
2024	0.34	0.28	1.85	3.00	< 0.005	0.07	0.30	0.37	0.06	0.07	0.13	—	683	683	0.03	0.04	0.64	696
2025	0.05	2.08	0.25	0.45	< 0.005	0.01	0.03	0.04	0.01	0.01	0.02	—	72.1	72.1	< 0.005	< 0.005	0.06	72.7

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.77	0.98	51.0	39.9	0.37	0.60	10.2	10.8	0.59	3.98	4.08	—	32,271	32,271	3.91	4.64	61.6	33,815
2024	1.61	1.38	12.3	26.0	0.03	0.14	2.32	2.46	0.13	0.56	0.69	—	5,896	5,896	0.26	0.30	12.6	6,003
2025	0.20	27.1	1.19	2.82	< 0.005	0.03	0.39	0.42	0.03	0.09	0.12	—	543	543	0.01	0.02	1.66	550
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	4.77	1.39	53.3	39.8	0.37	0.60	10.2	10.8	0.59	3.33	3.93	—	32,262	32,262	3.90	4.64	1.60	33,745
2024	1.58	1.34	12.5	25.0	0.03	0.14	2.32	2.46	0.13	0.56	0.69	—	5,755	5,755	0.28	0.30	0.33	5,852
2025	1.47	27.7	12.3	24.3	0.03	0.14	2.32	2.46	0.13	0.56	0.69	—	5,692	5,692	0.27	0.29	0.31	5,787
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.65	0.39	7.10	10.4	0.03	0.07	1.96	2.03	0.07	0.78	0.85	—	3,561	3,561	0.30	0.33	2.59	3,669
2024	1.12	0.96	8.91	17.7	0.02	0.10	1.65	1.75	0.09	0.40	0.49	—	4,128	4,128	0.20	0.22	3.88	4,201

2025	0.12	11.3	1.40	2.48	< 0.005	0.02	0.19	0.21	0.02	0.04	0.07	—	435	435	0.02	0.01	0.35	439
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.07	1.30	1.89	0.01	0.01	0.36	0.37	0.01	0.14	0.15	—	590	590	0.05	0.05	0.43	607
2024	0.20	0.17	1.63	3.23	< 0.005	0.02	0.30	0.32	0.02	0.07	0.09	—	683	683	0.03	0.04	0.64	696
2025	0.02	2.06	0.26	0.45	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	72.1	72.1	< 0.005	< 0.005	0.06	72.7

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.	13.2	19.2	19.4	65.2	0.11	1.01	2.40	3.41	1.01	0.42	1.43	114	14,182	14,296	12.2	0.35	29.1	14,735
Mit.	11.1	17.3	18.3	52.7	0.09	0.99	1.46	2.45	0.99	0.26	1.25	114	11,466	11,580	12.0	0.25	18.5	11,972
% Reduced	16%	10%	6%	19%	24%	2%	39%	28%	2%	39%	13%	—	19%	19%	1%	31%	36%	19%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.6	16.7	19.8	45.2	0.11	1.00	2.40	3.40	0.99	0.42	1.41	114	13,744	13,858	12.2	0.39	2.72	14,282
Mit.	8.60	14.9	18.4	32.7	0.08	0.98	1.46	2.44	0.98	0.26	1.23	114	11,176	11,290	12.1	0.27	2.45	11,673
% Reduced	19%	11%	7%	28%	24%	2%	39%	28%	2%	39%	13%	—	19%	19%	1%	31%	10%	18%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.32	13.0	4.35	40.8	0.07	0.13	2.40	2.53	0.13	0.42	0.55	114	8,377	8,491	12.0	0.35	13.7	8,911
Mit.	4.38	11.2	3.07	28.9	0.05	0.11	1.46	1.57	0.11	0.26	0.37	114	5,801	5,915	11.9	0.23	9.12	6,291
% Reduced	31%	14%	29%	29%	36%	15%	39%	38%	14%	39%	33%	—	31%	30%	1%	33%	33%	29%

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	2.38	0.79	7.45	0.01	0.02	0.44	0.46	0.02	0.08	0.10	18.9	1,387	1,406	1.99	0.06	2.27	1,475
Mit.	0.80	2.05	0.56	5.27	0.01	0.02	0.27	0.29	0.02	0.05	0.07	18.9	960	979	1.97	0.04	1.51	1,042
% Reduced	31%	14%	29%	29%	36%	15%	39%	38%	14%	39%	33%	—	31%	30%	1%	33%	33%	29%

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	5.21	4.88	2.92	31.7	0.07	0.05	2.40	2.45	0.04	0.42	0.46	—	6,926	6,926	0.35	0.28	27.0	7,045
Area	2.69	9.56	2.66	21.2	0.02	0.21	—	0.21	0.22	—	0.22	0.00	3,194	3,194	0.06	0.01	—	3,198
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	13.2	19.2	19.4	65.2	0.11	1.01	2.40	3.41	1.01	0.42	1.43	114	14,182	14,296	12.2	0.35	29.1	14,735
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.04	4.68	3.45	31.9	0.06	0.05	2.40	2.45	0.04	0.42	0.46	—	6,551	6,551	0.41	0.31	0.70	6,654
Area	0.29	7.31	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	10.6	16.7	19.8	45.2	0.11	1.00	2.40	3.40	0.99	0.42	1.41	114	13,744	13,858	12.2	0.39	2.72	14,282
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.96	4.62	3.26	30.3	0.06	0.05	2.40	2.45	0.04	0.42	0.46	—	6,571	6,571	0.39	0.30	11.7	6,681
Area	1.19	8.28	0.15	9.94	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	108	108	< 0.005	< 0.005	—	108
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	0.09	0.08	0.22	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.2	41.2	< 0.005	< 0.005	—	41.3
Total	6.32	13.0	4.35	40.8	0.07	0.13	2.40	2.53	0.13	0.42	0.55	114	8,377	8,491	12.0	0.35	13.7	8,911
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.90	0.84	0.60	5.54	0.01	0.01	0.44	0.45	0.01	0.08	0.08	—	1,088	1,088	0.06	0.05	1.93	1,106
Area	0.22	1.51	0.03	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.9	17.9	< 0.005	< 0.005	—	17.9
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	270	270	0.03	< 0.005	—	271
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0
Waste	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33
Stationary	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84
Total	1.15	2.38	0.79	7.45	0.01	0.02	0.44	0.46	0.02	0.08	0.10	18.9	1,387	1,406	1.99	0.06	2.27	1,475

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	3.17	2.97	1.77	19.3	0.04	0.03	1.46	1.49	0.03	0.26	0.28	—	4,210	4,210	0.22	0.17	16.4	4,283
Area	2.69	9.56	2.66	21.2	0.02	0.21	—	0.21	0.22	—	0.22	0.00	3,194	3,194	0.06	0.01	—	3,198
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	11.1	17.3	18.3	52.7	0.09	0.99	1.46	2.45	0.99	0.26	1.25	114	11,466	11,580	12.0	0.25	18.5	11,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.06	2.85	2.10	19.4	0.04	0.03	1.46	1.49	0.03	0.26	0.28	—	3,982	3,982	0.25	0.19	0.43	4,045
Area	0.29	7.31	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	8.60	14.9	18.4	32.7	0.08	0.98	1.46	2.44	0.98	0.26	1.23	114	11,176	11,290	12.1	0.27	2.45	11,673
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	3.01	2.81	1.98	18.4	0.04	0.03	1.46	1.49	0.03	0.26	0.28	—	3,995	3,995	0.24	0.18	7.10	4,062
Area	1.19	8.28	0.15	9.94	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	108	108	< 0.005	< 0.005	—	108
Energy	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	1,629	1,629	0.20	0.02	—	1,638
Water	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7

Waste	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Stationary	0.09	0.08	0.22	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.2	41.2	< 0.005	< 0.005	—	41.3
Total	4.38	11.2	3.07	28.9	0.05	0.11	1.46	1.57	0.11	0.26	0.37	114	5,801	5,915	11.9	0.23	9.12	6,291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.55	0.51	0.36	3.37	0.01	0.01	0.27	0.27	< 0.005	0.05	0.05	—	661	661	0.04	0.03	1.17	672
Area	0.22	1.51	0.03	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.9	17.9	< 0.005	< 0.005	—	17.9
Energy	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	270	270	0.03	< 0.005	—	271
Water	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0
Waste	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33
Stationary	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84
Total	0.80	2.05	0.56	5.27	0.01	0.02	0.27	0.29	0.02	0.05	0.07	18.9	960	979	1.97	0.04	1.51	1,042

3. Construction Emissions Details

3.1. Site Preparation (2023) - 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 Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58	0.49	4.90	4.37	0.01	0.22	—	0.22	0.20	—	0.20	—	653	653	0.03	0.01	—	655
Dust From Material Movement	—	—	—	—	—	—	0.95	0.95	—	0.49	0.49	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.89	0.80	< 0.005	0.04	—	0.04	0.04	—	0.04	—	108	108	< 0.005	< 0.005	—	108
Dust From Material Movement	—	—	—	—	—	—	0.17	0.17	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.80	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	157	157	0.01	0.01	0.72	160
Vendor	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
Hauling	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	73.6	73.6	0.01	0.01	0.15	77.4

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.1	18.1	< 0.005	< 0.005	0.04	18.4
Vendor	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
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.07	9.07	< 0.005	< 0.005	0.01	9.54
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.00	3.00	< 0.005	< 0.005	0.01	3.04
Vendor	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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.58

3.2. Site Preparation (2023) - Mitigated

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 Equipment	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.08	1.82	3.49	0.01	0.01	—	0.01	0.01	—	0.01	—	653	653	0.03	0.01	—	655
Dust From Material Movement	—	—	—	—	—	—	0.95	0.95	—	0.49	0.49	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.33	0.64	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	108	108	< 0.005	< 0.005	—	108
Dust From Material Movement	—	—	—	—	—	—	0.17	0.17	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.05	0.80	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	157	157	0.01	0.01	0.72	160
Vendor	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
Hauling	0.01	< 0.005	0.11	0.06	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	73.6	73.6	0.01	0.01	0.15	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.1	18.1	< 0.005	< 0.005	0.04	18.4
Vendor	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

Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.07	9.07	< 0.005	< 0.005	0.01	9.54
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.00	3.00	< 0.005	< 0.005	0.01	3.04
Vendor	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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.58

3.3. Grading (2023) - 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 Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	2.78	2.78	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	2.78	2.78	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.15	1.13	< 0.005	0.05	—	0.05	0.05	—	0.05	—	170	170	0.01	< 0.005	—	171
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.2	28.2	< 0.005	< 0.005	—	28.3
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	134	134	0.01	0.01	0.62	137
Vendor	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
Hauling	4.31	0.53	40.7	21.4	0.34	0.51	2.22	2.73	0.51	0.68	1.19	—	29,179	29,179	3.78	4.61	61.0	30,710
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.61	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	125	125	< 0.005	0.01	0.02	127
Vendor	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
Hauling	4.31	0.53	42.9	21.5	0.34	0.51	2.22	2.73	0.51	0.68	1.19	—	29,179	29,179	3.78	4.61	1.59	30,650

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.24	7.24	< 0.005	< 0.005	0.02	7.35
Vendor	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
Hauling	0.25	0.03	2.44	1.23	0.02	0.03	0.13	0.16	0.03	0.04	0.07	—	1,679	1,679	0.22	0.27	1.52	1,765
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.20	1.20	< 0.005	< 0.005	< 0.005	1.22
Vendor	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
Hauling	0.05	0.01	0.45	0.23	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	278	278	0.04	0.04	0.25	292

3.4. Grading (2023) - Mitigated

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 Equipment	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	2.78	2.78	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,958	2,958	0.12	0.02	—	2,968

Dust From Material Movement	—	—	—	—	—	—	2.78	2.78	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.59	1.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	170	170	0.01	< 0.005	—	171
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.11	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.2	28.2	< 0.005	< 0.005	—	28.3
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	134	134	0.01	0.01	0.62	137
Vendor	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
Hauling	4.31	0.53	40.7	21.4	0.34	0.51	2.22	2.73	0.51	0.68	1.19	—	29,179	29,179	3.78	4.61	61.0	30,710
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.06	0.06	0.61	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	125	125	< 0.005	0.01	0.02	127
Vendor	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
Hauling	4.31	0.53	42.9	21.5	0.34	0.51	2.22	2.73	0.51	0.68	1.19	—	29,179	29,179	3.78	4.61	1.59	30,650
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.24	7.24	< 0.005	< 0.005	0.02	7.35
Vendor	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
Hauling	0.25	0.03	2.44	1.23	0.02	0.03	0.13	0.16	0.03	0.04	0.07	—	1,679	1,679	0.22	0.27	1.52	1,765
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.20	1.20	< 0.005	< 0.005	< 0.005	1.22
Vendor	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
Hauling	0.05	0.01	0.45	0.23	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	278	278	0.04	0.04	0.25	292

3.5. Building Construction (2023) - 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	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.26	0.22	2.08	2.32	< 0.005	0.10	—	0.10	0.09	—	0.09	—	422	422	0.02	< 0.005	—	424
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	69.9	69.9	< 0.005	< 0.005	—	70.1
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.00	0.91	0.89	9.65	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,985	1,985	0.06	0.08	0.25	2,011
Vendor	0.20	0.06	2.31	1.28	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,430	1,430	0.12	0.20	0.09	1,494
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.14	1.65	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	351	351	0.01	0.01	0.74	356
Vendor	0.03	0.01	0.40	0.22	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	252	252	0.02	0.04	0.27	263
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.30	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	58.1	58.1	< 0.005	< 0.005	0.12	59.0
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	41.7	41.7	< 0.005	0.01	0.04	43.6
Hauling	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

3.6. Building Construction (2023) - Mitigated

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	0.44	0.42	9.54	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	1.68	2.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	422	422	0.02	< 0.005	—	424
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.31	0.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	69.9	69.9	< 0.005	< 0.005	—	70.1
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.00	0.91	0.89	9.65	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,985	1,985	0.06	0.08	0.25	2,011
Vendor	0.20	0.06	2.31	1.28	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,430	1,430	0.12	0.20	0.09	1,494

Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.14	1.65	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	351	351	0.01	0.01	0.74	356
Vendor	0.03	0.01	0.40	0.22	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	252	252	0.02	0.04	0.27	263
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.30	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	58.1	58.1	< 0.005	< 0.005	0.12	59.0
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	41.7	41.7	< 0.005	0.01	0.04	43.6
Hauling	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

3.7. Building Construction (2024) - 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 Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.03	0.86	8.04	9.39	0.02	0.36	—	0.36	0.33	—	0.33	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.16	1.47	1.71	< 0.005	0.07	—	0.07	0.06	—	0.06	—	284	284	0.01	< 0.005	—	285
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98	0.90	0.65	10.00	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	2,089	2,089	0.04	0.08	9.02	2,122
Vendor	0.20	0.06	2.08	1.20	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,409	1,409	0.12	0.20	3.54	1,476
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.95	0.87	0.82	8.96	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,948	1,948	0.06	0.08	0.23	1,974
Vendor	0.19	0.06	2.19	1.22	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,409	1,409	0.12	0.20	0.09	1,473
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.61	0.53	6.20	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,401	1,401	0.04	0.06	2.79	1,422
Vendor	0.13	0.04	1.54	0.86	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,009	1,009	0.09	0.14	1.09	1,056
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.10	1.13	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	232	232	0.01	0.01	0.46	235
Vendor	0.02	0.01	0.28	0.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	167	167	0.01	0.02	0.18	175
Hauling	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

3.8. Building Construction (2024) - Mitigated

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 Equipment	0.44	0.42	9.54	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.42	9.54	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.30	6.83	10.6	0.02	0.09	—	0.09	0.08	—	0.08	—	1,717	1,717	0.07	0.01	—	1,723
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	1.25	1.94	< 0.005	0.02	—	0.02	0.01	—	0.01	—	284	284	0.01	< 0.005	—	285
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.98	0.90	0.65	10.00	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	2,089	2,089	0.04	0.08	9.02	2,122
Vendor	0.20	0.06	2.08	1.20	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,409	1,409	0.12	0.20	3.54	1,476
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.95	0.87	0.82	8.96	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,948	1,948	0.06	0.08	0.23	1,974
Vendor	0.19	0.06	2.19	1.22	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,409	1,409	0.12	0.20	0.09	1,473
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.68	0.61	0.53	6.20	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,401	1,401	0.04	0.06	2.79	1,422
Vendor	0.13	0.04	1.54	0.86	0.01	0.01	0.06	0.07	0.01	0.02	0.03	—	1,009	1,009	0.09	0.14	1.09	1,056
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.10	1.13	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	232	232	0.01	0.01	0.46	235
Vendor	0.02	0.01	0.28	0.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	167	167	0.01	0.02	0.18	175
Hauling	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

3.9. Building Construction (2025) - 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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.1	14.1	< 0.005	< 0.005	—	14.1
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.33	2.33	< 0.005	< 0.005	—	2.34
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.86	0.83	0.75	8.34	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,910	1,910	0.05	0.08	0.21	1,936
Vendor	0.18	0.05	2.07	1.16	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,384	1,384	0.12	0.19	0.09	1,445
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.3	11.3	< 0.005	< 0.005	0.02	11.4
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.13	8.13	< 0.005	< 0.005	0.01	8.49
Hauling	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.89
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.41
Hauling	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

3.10. Building Construction (2025) - Mitigated

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	0.44	0.42	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.06	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.1	14.1	< 0.005	< 0.005	—	14.1
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.33	2.33	< 0.005	< 0.005	—	2.34
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.86	0.83	0.75	8.34	0.00	0.00	0.12	0.12	0.00	0.00	0.00	—	1,910	1,910	0.05	0.08	0.21	1,936
Vendor	0.18	0.05	2.07	1.16	0.01	0.02	0.08	0.10	0.02	0.03	0.05	—	1,384	1,384	0.12	0.19	0.09	1,445
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.3	11.3	< 0.005	< 0.005	0.02	11.4
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.13	8.13	< 0.005	< 0.005	0.01	8.49
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.89
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.35	1.35	< 0.005	< 0.005	< 0.005	1.41
Hauling	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

3.11. Paving (2025) - 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	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517

Paving	—	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.86	1.15	< 0.005	0.04	—	0.04	0.04	—	0.04	—	174	174	0.01	< 0.005	—	175
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.21	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.8	28.8	< 0.005	< 0.005	—	28.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	121	121	< 0.005	0.01	0.01	122
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	13.9	13.9	< 0.005	< 0.005	0.03	14.1
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	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
Hauling	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

3.12. Paving (2025) - Mitigated

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	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.83	1.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	174	174	0.01	< 0.005	—	175
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.15	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.8	28.8	< 0.005	< 0.005	—	28.9
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	121	121	< 0.005	0.01	0.01	122
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	13.9	13.9	< 0.005	< 0.005	0.03	14.1
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.31	2.31	< 0.005	< 0.005	< 0.005	2.34
Vendor	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
Hauling	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

3.13. Architectural Coating (2025) - 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 Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.36	0.47	< 0.005	0.01	—	0.01	0.01	—	0.01	—	55.2	55.2	< 0.005	< 0.005	—	55.4
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.15	9.15	< 0.005	< 0.005	—	9.18
Architectural Coatings	—	2.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	410	410	0.01	0.02	1.66	416
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.17	0.15	1.67	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	382	382	0.01	0.02	0.04	387
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	159	159	< 0.005	0.01	0.30	161
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	26.3	26.3	< 0.005	< 0.005	0.05	26.7
Vendor	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
Hauling	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

3.14. Architectural Coating (2025) - Mitigated

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 Equipment	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	26.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.44	0.40	< 0.005	0.01	—	0.01	0.01	—	0.01	—	55.2	55.2	< 0.005	< 0.005	—	55.4
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.08	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.15	9.15	< 0.005	< 0.005	—	9.18
Architectural Coatings	—	2.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	410	410	0.01	0.02	1.66	416
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.17	0.15	1.67	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	382	382	0.01	0.02	0.04	387
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.06	0.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	159	159	< 0.005	0.01	0.30	161
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	26.3	26.3	< 0.005	< 0.005	0.05	26.7
Vendor	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
Hauling	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

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	5.21	4.88	2.92	31.7	0.07	0.05	0.36	0.41	0.04	0.11	0.15	—	6,926	6,926	0.35	0.28	27.0	7,045
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	5.21	4.88	2.92	31.7	0.07	0.05	0.36	0.41	0.04	0.11	0.15	—	6,926	6,926	0.35	0.28	27.0	7,045
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	5.04	4.68	3.45	31.9	0.06	0.05	0.36	0.41	0.04	0.11	0.15	—	6,551	6,551	0.41	0.31	0.70	6,654
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	5.04	4.68	3.45	31.9	0.06	0.05	0.36	0.41	0.04	0.11	0.15	—	6,551	6,551	0.41	0.31	0.70	6,654
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.90	0.84	0.60	5.54	0.01	0.01	0.07	0.07	0.01	0.02	0.03	—	1,088	1,088	0.06	0.05	1.93	1,106
Enclosed Parking with Elevator	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

Other Asphalt Surfaces	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
Total	0.90	0.84	0.60	5.54	0.01	0.01	0.07	0.07	0.01	0.02	0.03	—	1,088	1,088	0.06	0.05	1.93	1,106

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	3.17	2.97	1.77	19.3	0.04	0.03	0.22	0.25	0.03	0.07	0.09	—	4,210	4,210	0.22	0.17	16.4	4,283
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	3.17	2.97	1.77	19.3	0.04	0.03	0.22	0.25	0.03	0.07	0.09	—	4,210	4,210	0.22	0.17	16.4	4,283
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	3.06	2.85	2.10	19.4	0.04	0.03	0.22	0.25	0.03	0.07	0.09	—	3,982	3,982	0.25	0.19	0.43	4,045
Enclosed Parking with Elevator	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

Other Asphalt Surfaces	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
Total	3.06	2.85	2.10	19.4	0.04	0.03	0.22	0.25	0.03	0.07	0.09	—	3,982	3,982	0.25	0.19	0.43	4,045
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.55	0.51	0.36	3.37	0.01	0.01	0.04	0.05	< 0.005	0.01	0.02	—	661	661	0.04	0.03	1.17	672
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.55	0.51	0.36	3.37	0.01	0.01	0.04	0.05	< 0.005	0.01	0.02	—	661	661	0.04	0.03	1.17	672

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	—	—	—	—	—	—	—	—	—	—	—	—	446	446	0.07	0.01	—	450
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.05	0.01	—	285

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	729	729	0.12	0.01	—	736
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	446	446	0.07	0.01	—	450
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.05	0.01	—	285
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	729	729	0.12	0.01	—	736
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	73.9	73.9	0.01	< 0.005	—	74.6
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	46.8	46.8	0.01	< 0.005	—	47.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	121	121	0.02	< 0.005	—	122

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	—	—	—	—	—	—	—	—	—	—	—	—	446	446	0.07	0.01	—	450
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.05	0.01	—	285
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	729	729	0.12	0.01	—	736
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	446	446	0.07	0.01	—	450
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	283	283	0.05	0.01	—	285
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	729	729	0.12	0.01	—	736
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	73.9	73.9	0.01	< 0.005	—	74.6

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	46.8	46.8	0.01	< 0.005	—	47.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	121	121	0.02	< 0.005	—	122

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 Mid Rise	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902

Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149

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	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Enclosed Parking with Elevator	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

Other Asphalt Surfaces	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
Total	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.08	0.04	0.71	0.30	< 0.005	0.06	—	0.06	0.06	—	0.06	—	900	900	0.08	< 0.005	—	902
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149
Enclosed Parking with Elevator	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
Other Asphalt Surfaces	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
Total	0.02	0.01	0.13	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	149	149	0.01	< 0.005	—	149

4.3. Area Emissions by Source

4.3.2. 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	0.29	0.14	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Consumer Products	—	6.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.40	2.25	0.19	20.1	< 0.005	0.01	—	0.01	0.02	—	0.02	—	62.4	62.4	< 0.005	< 0.005	—	62.6
Total	2.69	9.56	2.66	21.2	0.02	0.21	—	0.21	0.22	—	0.22	0.00	3,194	3,194	0.06	0.01	—	3,198
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.29	0.14	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Consumer Products	—	6.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.29	7.31	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	—	12.8
Consumer Products	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.22	0.20	0.02	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.10	5.10	< 0.005	< 0.005	—	5.11
Total	0.22	1.51	0.03	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.9	17.9	< 0.005	< 0.005	—	17.9

4.3.1. 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	0.29	0.14	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Consumer Products	—	6.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.40	2.25	0.19	20.1	< 0.005	0.01	—	0.01	0.02	—	0.02	—	62.4	62.4	< 0.005	< 0.005	—	62.6
Total	2.69	9.56	2.66	21.2	0.02	0.21	—	0.21	0.22	—	0.22	0.00	3,194	3,194	0.06	0.01	—	3,198
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.29	0.14	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Consumer Products	—	6.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.29	7.31	2.47	1.05	0.02	0.20	—	0.20	0.20	—	0.20	0.00	3,132	3,132	0.06	0.01	—	3,135
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	—	12.8
Consumer Products	—	1.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.22	0.20	0.02	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.10	5.10	< 0.005	< 0.005	—	5.11
Total	0.22	1.51	0.03	1.81	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	17.9	17.9	< 0.005	< 0.005	—	17.9

4.4. Water Emissions by Land Use

4.4.2. 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	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0

4.4.1. 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	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.5	28.3	42.8	1.49	0.04	—	90.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.40	4.69	7.08	0.25	0.01	—	15.0

4.5. Waste Emissions by Land Use

4.5.2. 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	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7

4.5.1. 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	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	99.6	0.00	99.6	9.96	0.00	—	349
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.5	0.00	16.5	1.65	0.00	—	57.7

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.02	2.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.33	0.33

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)

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84
Total	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84

4.8.2. Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Total	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412

Total	5.16	4.70	13.1	12.0	0.02	0.69	—	0.69	0.69	—	0.69	—	2,404	2,404	0.10	0.02	—	2,412
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84
Total	0.02	0.01	0.04	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.82	6.82	< 0.005	< 0.005	—	6.84

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Site Preparation	Site Preparation	7/1/2023	9/1/2023	5.00	45.0	—
Grading	Grading	9/2/2023	10/2/2023	5.00	21.0	—
Building Construction	Building Construction	10/3/2023	1/3/2025	5.00	329	—
Paving	Paving	1/4/2025	3/4/2025	5.00	42.0	—
Architectural Coating	Architectural Coating	1/4/2025	8/4/2025	5.00	151	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—

Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.96	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	29.8	260	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	238	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	49.2	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	47.5	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.96	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	29.8	260	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	238	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	49.2	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	47.5	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	571,050	190,350	3,274	364	15,420

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	431	60.0	0.00	—
Grading	5,000	5,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.90

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Enclosed Parking with Elevator	1.67	100%

Other Asphalt Surfaces	4.23	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

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	1,374	1,374	1,374	501,364	8,810	8,810	8,810	3,215,679
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	835	835	835	304,783	5,356	5,356	5,356	1,954,837
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	128
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	123
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	128
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	123
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
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)
571050	190,350	3,274	364	15,420

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	798,201	204	0.0330	0.0040	2,807,773
Enclosed Parking with Elevator	505,726	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

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	798,201	204	0.0330	0.0040	2,807,773
Enclosed Parking with Elevator	505,726	204	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	7,555,500	352,184
Enclosed Parking with Elevator	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	7,555,500	352,184
Enclosed Parking with Elevator	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	77.0	0.00
Enclosed Parking with Elevator	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	77.0	0.00
Enclosed Parking with Elevator	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

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

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

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

5.15.2. Mitigated

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

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
Emergency Generator	Diesel	1.00	8.00	50.0	358	0.73

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type
—	—

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

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

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	9.12	annual days of extreme heat
Extreme Precipitation	15.8	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	7.96	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 ¾ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	4	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	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	4	1	1	4

Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	1	1	1	2

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	6.38
AQ-PM	26.9
AQ-DPM	68.4
Drinking Water	7.43
Lead Risk Housing	30.9
Pesticides	0.00
Toxic Releases	53.2
Traffic	95.2
Effect Indicators	—

CleanUp Sites	61.4
Groundwater	72.5
Haz Waste Facilities/Generators	76.4
Impaired Water Bodies	87.0
Solid Waste	89.0
Sensitive Population	—
Asthma	1.89
Cardio-vascular	6.61
Low Birth Weights	6.34
Socioeconomic Factor Indicators	—
Education	23.7
Housing	51.4
Linguistic	27.3
Poverty	24.7
Unemployment	18.3

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	89.50340049
Employed	58.03926601
Median HI	—
Education	—
Bachelor's or higher	89.24675991
High school enrollment	100
Preschool enrollment	86.26972924

Transportation	—
Auto Access	31.75927114
Active commuting	89.93968946
Social	—
2-parent households	85.74361607
Voting	96.43269601
Neighborhood	—
Alcohol availability	71.01244707
Park access	51.35377903
Retail density	80.91877326
Supermarket access	50.58385731
Tree canopy	92.09547029
Housing	—
Homeownership	58.27024253
Housing habitability	53.34274349
Low-inc homeowner severe housing cost burden	65.76414731
Low-inc renter severe housing cost burden	57.46182471
Uncrowded housing	76.50455537
Health Outcomes	—
Insured adults	89.59322469
Arthritis	0.0
Asthma ER Admissions	91.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0

Diagnosed Diabetes	0.0
Life Expectancy at Birth	35.4
Cognitively Disabled	80.8
Physically Disabled	46.5
Heart Attack ER Admissions	89.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	60.9
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	15.0
Children	68.4
Elderly	23.5
English Speaking	82.8
Foreign-born	24.0
Outdoor Workers	93.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.7
Traffic Density	88.3
Traffic Access	50.7

Other Indices	—
Hardship	18.2
Other Decision Support	—
2016 Voting	96.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	15.0
Healthy Places Index Score for Project Location (b)	93.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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	8.34 ac site with ~6.7 ac to be developed - buildings include 9 floors (res/parking) total ~420,000 sf w/ up to 250 apartments (res is 282,000 sf bldg floor area) & 4 levels of parking (350 spaces totaling 137,000 sf) [parking/bldg footprint is ~73,002 sf or ~1.67 ac] & 35,000 sf (~0.803 ac) landscaping/open space, & remainder ~4.23 ac hardscape/paving driveways. Site plan has 248 DU, but Traffic has 250 used 250 to be conservative.
Construction: Construction Phases	Removal pavement included in site prep. Begin Q3 2023 end Q3 2025 lasting ~27 months. Demo/Site prep ~2 months, ~1 month grading, ~15 months building construction, ~2 months paving, & ~7 months painting. Paving to be concurrent w/ architectural coating. Potentially up to ~11,500 sf paving to be removed [(11,500x.5x150)/2000= 431.25 tons debris during site prep].
Construction: Trips and VMT	Nearest facility which accepts contaminated soils is the Transfer/Process Facility (Solid Waste Information System [SWIS] Number 15-AA-0400) at 18613 Waterflood Road, Lost Hills, California 93249, approximately 260 miles from the project site. Replacement soil would not be anticipated to be hauled from this distance; however, to be conservative, all haul trips assumed to travel 260 miles one-way.
Operations: Vehicle Data	Per traffic, 5.44 trips/DU/day.
Operations: Emergency Generators and Fire Pumps	Total project energy demand is 1,303,927 kWh. 1,303,927/365 =3,562 & 3,572/20 = 179. Normalized demand of ~179 kWh. 179*2 = 358 (assumed horsepower of the back-up generator). Generator assumed 50 hrs/yr.
Construction: Dust From Material Movement	5,000 CY contaminated soils to be exported and replaced. Up to ~11,500 sf paving to be removed [(11,500x.5x150)/2000= 431.25 tons debris during site prep].
Characteristics: Utility Information	Project is under jurisdiction of MCE for electricity & PG&E for natural gas.

Oak Hill Apartments - SJVAPCD Hauling Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Oak Hill Apartments - SJVAPCD Hauling
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	16.2
Location	18613 Waterflood Rd, McKittrick, CA 93251, USA
County	Kern-San Joaquin
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2947
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

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

Other Non-Asphalt Surfaces	0.00	1000sqft	0.00	0.00	0.00	—	—	This CalEEMod run is just to estimate hauling emissions in the SJVAPCD boundaries, no uses are being constructed.

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.	0.07	0.02	3.29	0.38	0.02	0.06	0.85	0.91	0.06	0.23	0.29	—	3,207	3,207	0.02	0.51	7.87	3,367
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.02	3.54	0.36	0.02	0.06	0.85	0.91	0.06	0.23	0.29	—	3,208	3,208	0.02	0.51	0.20	3,360
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	0.20	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	< 0.005	0.03	0.20	193
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	0.04	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.0

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.02	3.29	0.38	0.02	0.06	0.85	0.91	0.06	0.23	0.29	—	3,207	3,207	0.02	0.51	7.87	3,367
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.07	0.02	3.54	0.36	0.02	0.06	0.85	0.91	0.06	0.23	0.29	—	3,208	3,208	0.02	0.51	0.20	3,360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	< 0.005	0.20	0.02	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	185	185	< 0.005	0.03	0.20	193
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	< 0.005	< 0.005	0.04	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.0

3. Construction Emissions Details

3.1. Grading (2023) - 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	0.07	0.02	3.29	0.38	0.02	0.06	0.24	0.30	0.06	0.08	0.14	—	3,207	3,207	0.02	0.51	7.87	3,367

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	0.07	0.02	3.54	0.36	0.02	0.06	0.24	0.30	0.06	0.08	0.14	—	3,208	3,208	0.02	0.51	0.20	3,360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	< 0.005	< 0.005	0.20	0.02	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	185	185	< 0.005	0.03	0.20	193
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	< 0.005	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	30.6	30.6	< 0.005	< 0.005	0.03	32.0

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Grading	Grading	9/2/2023	10/2/2023	5.00	21.0	—

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

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Grading	—	—	—	—
Grading	Worker	0.00	17.3	LDA,LDT1,LDT2
Grading	Vendor	0.00	10.6	HHDT,MHDT
Grading	Hauling	4.73	194	HHDT
Grading	Onsite truck	0.00	0.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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)

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)
Grading	—	—	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005

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

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	23.9	annual days of extreme heat
Extreme Precipitation	0.00	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	30.6	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 ¾ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	0	0	0	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	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A

Air Quality	1	1	1	2

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	75.4
AQ-PM	57.3
AQ-DPM	8.76
Drinking Water	92.6
Lead Risk Housing	56.5
Pesticides	88.1
Toxic Releases	91.4
Traffic	2.73
Effect Indicators	—
CleanUp Sites	85.8
Groundwater	94.8
Haz Waste Facilities/Generators	97.3
Impaired Water Bodies	0.00
Solid Waste	99.5

Sensitive Population	—
Asthma	17.7
Cardio-vascular	58.1
Low Birth Weights	61.9
Socioeconomic Factor Indicators	—
Education	76.0
Housing	16.9
Linguistic	57.8
Poverty	70.3
Unemployment	87.7

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	0.0
Asthma ER Admissions	85.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	35.0
Physically Disabled	11.3
Heart Attack ER Admissions	61.3

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	90.9
Elderly	76.6
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	4.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.8
Traffic Density	0.0
Traffic Access	0.0
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	81.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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
Construction: Construction Phases	Grading to occur from 9/2/2023 to 10/2/2023, hauling trips within SJVAPCD would be within this timeframe.
Construction: Trips and VMT	This run includes soil hauling along the ~194 mile that are within the SJVAPCD boundaries. As shown in project CalEEMod run, ~29.8 hauling trips per day.
Characteristics: Utility Information	Project site to use PG&E for gas provider.

5566.0001 Oak Hill Apartments - Example Project Workbook

Location		Sources/URLs:	Notes
Lat, Long			
UTM			
City	Unincorporated Marin County	CalEEMod 2022.1	
County	Marin	CalEEMod 2022.1	
Address	north and west of East Sir Francis Drake Boulevard, east of Drakes Cove Road, and south of Anderson Drive	Google Earth	
Zip Code	94939	Google Earth	
Climate Zone	5		
Utility - Gas	PG&E	CalEEMod 2022.1	
Utility - Electricity	PG&E (or MCE)	CalEEMod 2022.1	
Air District	Bay Area AQMD	CalEEMod 2022.1	
Air Basin	San Francisco Bay Area Air Basin	CalEEMod 2022.1	

PROPOSED PROJECT

Land Use	Number or Size	Footprint SF	Building SF	Lot Acreage	Additional Information
Apartments Mid-Rise	250 -DU	282,000	282,000	-	
Enclosed Parking w/ Elevator	350 - space	137,000	137,000	1.67	Project Site = 8.34 acres, but grading area is ~8.23 acres and study area is ~10.43 acres. Per PD only ~6.7 acres to be developed.
Landscaping		35,000		0.80	
Other Asphalt Surfaces	4.23- AC			4.23	
				-	
	Totals		**419,000**	**6.70**	

Project Construction Assumptions

CalEEMod output file: Oak Hill Apartments - BAAQMD Marin County

Project Construction

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Site Preparation	Site Preparation	7/1/2023	9/1/2023	5	45
Grading	Grading	9/2/2023	10/2/2023	5	21
Building Construction	Building Construction	10/3/2023	1/3/2025	5	329
Paving	Paving	1/4/2025	3/4/2025	5	42
Architectural Coating	Architectural Coating	1/4/2025	8/4/2025	5	151
	Total Schedule				**546**

Note: Accounts for overlap of architectural coating with and paving phase.

Off-Road Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Days	HP-H	Notes
Site Preparation	Rubber Tired Dozers	3	8	367	0.4	45	158,544	
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37	45	44,755	
Grading	Excavators	1	8	36	0.38	21	2,298	
Grading	Graders	1	8	148	0.41	21	10,194	
Grading	Rubber Tired Dozers	1	8	367	0.4	21	24,662	
Grading	Tractors/Loaders/Backhoes	3	8	84	0.37	21	15,664	
Building Construction	Cranes	1	7	367	0.29	329	245,108	
Building Construction	Forklifts	3	8	82	0.2	329	129,494	
Building Construction	Generator Sets	1	8	14	0.74	329	27,268	
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37	329	214,732	
Building Construction	Welders	1	8	46	0.45	329	54,482	
Paving	Pavers	2	8	81	0.42	42	22,861	
Paving	Paving Equipment	2	8	89	0.36	42	21,531	
Paving	Rollers	2	8	36	0.38	42	9,193	
Architectural Coating	Air Compressors	1	6	37	0.48	151	16,091	

Trips and VMT

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length			
Site Preparation	17.5	0	0.96	11.7	8.4	20	LD_Mix	HDT_Mix	HHDT
Grading	15	0	29.8	11.7	8.4	260	LD_Mix	HDT_Mix	HHDT
Building Construction	238	49.2	0	11.7	8.4	20	LD_Mix	HDT_Mix	HHDT
Paving	15	0	0	11.7	8.4	20	LD_Mix	HDT_Mix	HHDT
Architectural Coating	47.5	0	0	11.7	8.4	20	LD_Mix	HDT_Mix	HHDT

Construction Schedule

Conceptual Construction Schedule

Construction Activity	Conceptual Construction Schedule		Working Days
	Start Date	End Date	
Site Preparation	7/1/2023	9/1/2023	45
Grading	9/2/2023	10/2/2023	21
Building Construction	10/3/2023	1/3/2025	329
Paving	1/4/2025	3/4/2025	42
Architectural Coating	1/4/2025	8/4/2025	151
Source: CalEEMod Output (Appendix C).			

Note: Building Construction and Paving will not be concurrent; however, architectural coating will be concurrent with paving.

Project Mitigated Construction Emissions[1]

Model File: 5566.0001 Oak Hills Apartments Construction Run - Marin County,

Average Daily Unmitigated Construction Emissions (pounds/day)

	ROG	NO_x	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Total)
Average Daily Emissions (pounds/day)	27.70	53.30	0.60	0.59	10.80	4.08
BAAQMD Significance Thresholds	54	54	82	54	82	54
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Note: CalEEMod Version 2022.1 incorporates overlapping construction in emissions.

Project Operational Emissions Summary

Model File: 5566.0001 Oak Hills Apartments Construction Run - Marin County,

Maximum Daily Operations Emissions (lbs/day)

	ROG	NO_x	PM_{10} (Total)	$PM_{2.5}$ (Total)
Daily Emissions Analysis				
Average Daily Operations Emissions (lbs/day)	19.20	19.80	3.41	1.43
BAAQMD Significance Thresholds	54	54	82	54
Project Exceeds Threshold?	**No**	**No**	**No**	**No**
Annual Emissions Analysis				
Maximum Annual Emissions (tons/year)	2.38	0.79	0.46	0.10
BAAQMD Significance Thresholds	10	10	15	10
Project Exceeds Threshold?	**No**	**No**	**No**	**No**

Project Operational GHG Emissions Summary

Construction - GHG Emissions

Model File: 5566.0001 Oak Hills Apartments - Marin County,

Emissions Source	Metric Tons per Year		
	Total CO2e	Bio-CO2	NBio-CO2
Total	**696**	**-**	**683**
Amortized Over 30 Years	23		23

Operation 2025 - GHG Emissions

Model File: 5566.0001 Oak Hills Apartments - Marin County,

Emissions Source	Metric Tons per Year		
	Total CO2e	Bio-CO2	NBio-CO2
Unmitigated			
Total	1,475	19	1,387
Mitigated			
Total	1,042	19	960

Note: For GHG emissions, only non-biogenic CO2e emissions are included in the project's operational GHG emissions and stationary source emissions are omitted from the total GHG emissions shown here, per BAAQMD's 2017 CEQA Air Quality Guidelines. Mitigated operational values include T-1 Increase Residential Density & T-4 Integrate Affordabe and Below Market Housing.

Demolition Debris Calculations

Parameters[1]			
1	building st	10	cf building volume
1	cf building volume	0.25	cf waste volume
1	cf	0.037	cy
1	cy waste volume	0.5	ton waste weight
1	**sf**	**0.04625**	**ton waste material**

Description	square feet[2]	height/ depth (ft)[3]	density (lbs/cf)[4]	Demolition Weight (pounds)	Demolition Weight (tons)
Pavement	11,500	0.5	150	862,500	431.25
Totals	**11,500**	-	-	-	**431**

Notes:
cy = cubic yard
gsf = gross square feet
sf = square feet
cf = cubic feet

[1] Source: California Air Pollution Control Officers Association (CAPCOA). 2017. Appendix A Calculation Details for CalEEMod. October.

[2] ~11,500-square-foot asphalt pad is located in the southwestern corner of the project site & could be demolished.

[3] Source: DC Construction Services. 2017. How Thick Is Parking Lot Asphalt? Website: https://dccpaving.com/how-thick-is-parking-lot-asphalt/. Accessed March 10, 2022.

[4] Source: SFGate. 2019. How to Calculate Asphalt Weight Per Yard. Website: https://homeguides.sfgate.com/calculate-asphalt-weight-per-yard-81825.html. Accessed March 10, 2022.

Generator Horsepower Calculations

Here are the assumptions for back up generators on projects.

Rule of thumb that 2 horsepower is needed for every 1 kW demand.

Retrieve electricity consumption from CalEEMod.

Normalize electricity consumption for kW demand. For instance, if the project is residential, then operations are 365 days per year and 24 hours per day.

If the project is a commercial business, then operations may be 365 days per year but only 12 hours per day. Whatever is most representative of your project's operations.

Caveats:

This approach does not take into account peak load demand.

This approach does not take into account any additional electricity consumption resulting from a project's all-electric design required by either a local reach code or through GHG mitigation.

CalEEMod Project Calculated Demand:

Apartments Mid-Rise - 798,201 kWh

Enclosed Parking w/ Elevator - 505,726

Total = 1,303,927

Backup Generator Calculations:

1,303,927/365 =3,572

3,572/20 = 179

normalized demand of ~178 kWh

178*2 = 358 (assumed horsepower of the back-up generator)

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.1
** Lakes Environmental Software Inc.
** Date: 11/23/2022
** File: Oak Hill HRA - 1 Year\Oak Hill HRA - 1 Year.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Oak Hill HRA
   TITLETWO Oak Hill Apartments Construction DPM - 1 year
   MODELOPT CONC NOCHKD
   AVERTIME PERIOD
   URBANOPT 262231 Marin_County_(2020)
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "Oak Hill HRA - 1 Year.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   543747.773  4199717.265        6.230
** DESCRSRC Area of Disturbance
** Source Parameters **
   SRCPARAM PAREA1       2.5928E-08     3.660        36
   AREAVERT PAREA1       543747.773 4199717.265 543766.136 4199953.167
   AREAVERT PAREA1       543819.922 4199905.221 543849.886 4199880.646
   AREAVERT PAREA1       543883.428 4199870.418 543884.130 4199870.221
   AREAVERT PAREA1       543884.229 4199867.136 543896.433 4199863.754
   AREAVERT PAREA1       543900.201 4199862.662 543906.488 4199857.503
   AREAVERT PAREA1       543930.671 4199836.738 543935.082 4199832.957
   AREAVERT PAREA1       543949.327 4199814.271 543954.176 4199801.810
   AREAVERT PAREA1       543953.602 4199796.765 543950.996 4199788.249
   AREAVERT PAREA1       543942.416 4199764.162 543929.906 4199742.611
   AREAVERT PAREA1       543919.789 4199725.626 543915.827 4199695.423
   AREAVERT PAREA1       543917.498 4199685.834 543915.558 4199678.719
```

```
   AREAVERT PAREA1       543880.889 4199651.284 543873.460 4199645.926
   AREAVERT PAREA1       543851.906 4199632.165 543845.573 4199630.948
   AREAVERT PAREA1       543798.445 4199648.240 543789.799 4199644.587
   AREAVERT PAREA1       543786.690 4199652.712 543781.604 4199654.432
   AREAVERT PAREA1       543774.798 4199674.777 543773.526 4199679.638
   AREAVERT PAREA1       543766.478 4199693.560 543764.925 4199696.356
   AREAVERT PAREA1       543762.233 4199699.772 543767.513 4199702.567
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Oak Hill HRA - 1 Year.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "Oak Hill HRA - 1 Year.SFC"
   PROFFILE "Oak Hill HRA - 1 Year.PFL"
   SURFDATA 23234 2013 SAN_FRANCISCO/INT'L_ARPT
   UAIRDATA 23230 2013 OAKLAND/WSO_AP
   PROFBASE 2.4 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "Oak Hill HRA - 1 Year.AD\PE00GALL.PLT" 31
   SUMMFILE "Oak Hill HRA - 1 Year.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
```

```
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186      83       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187      83       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

**********************************
*** SETUP Finishes Successfully ***
**********************************
```

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

                                        ***   MODEL SETUP OPTIONS SUMMARY   ***
- -

** Model Options Selected:
     * Model Allows User-Specified Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE = F
     * Model Uses NO WET DEPLETION. WETDPLT = F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   1 Source(s),
       for Total of   1 Urban Area(s):
  Urban Population =   262231.0 ; Urban Roughness Length = 1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * NOCHKD   - Suppresses checking of date sequence in meteorology files
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * CCVR_Sub - Meteorological data includes CCVR substitutions
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes: 1 Source(s);   1 Source Group(s); and   450 Receptor(s)

               with: 0 POINT(s), including
                          0 POINTCAP(s) and   0 POINTHOR(s)
                and: 0 VOLUME source(s)
                and: 1 AREA type source(s)
                and: 0 LINE source(s)
                and: 0 RLINE/RLINEXT source(s)
                and: 0 OPENPIT source(s)
                and: 0 BUOYANT LINE source(s) with a total of   0 line(s)
                and: 0 SWPOINT source(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 18081

**Output Options Selected:

```
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     2.40 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   Oak Hill HRA - 1 Year.err
**File for Summary of Results:   Oak Hill HRA - 1 Year.sum
```

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
PAREA1	0	0.25928E-07	543747.8	4199717.3	6.2	3.66	36	0.00	YES	

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	PAREA1 ,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	262231.	PAREA1 ,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

543352.0, 543400.6, 543449.1, 543497.7, 543546.3, 543594.8, 543643.4, 543692.0, 543740.6, 543789.1,
543837.7, 543886.3, 543934.8, 543983.4, 544032.0, 544080.6, 544129.1, 544177.7, 544226.3, 544274.8,
544323.4,

*** Y-COORDINATES OF GRID ***
(METERS)

4199287.4, 4199335.4, 4199383.3, 4199431.2, 4199479.1, 4199527.0, 4199575.0, 4199622.9, 4199670.8, 4199718.7,
4199766.6, 4199814.6, 4199862.5, 4199910.4, 4199958.3, 4200006.2, 4200054.2, 4200102.1, 4200150.0, 4200197.9,
4200245.8,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	12.70	15.10	18.60	24.20	26.50	31.50	53.30	66.90	63.20
4200197.92	11.40	13.00	16.60	21.20	23.00	29.10	43.80	57.50	63.30
4200150.00	12.70	12.50	16.90	19.80	25.50	31.60	31.70	41.00	48.60
4200102.08	12.60	14.20	18.50	24.10	29.60	21.60	22.70	33.90	50.90
4200054.16	9.60	13.30	17.00	22.00	22.00	17.50	26.60	45.30	62.10
4200006.24	8.30	9.60	10.00	11.20	12.00	16.70	28.90	48.90	63.90
4199958.32	7.40	7.50	7.20	6.90	7.60	16.90	34.90	48.40	55.40
4199910.40	4.90	5.70	5.90	6.10	8.40	21.20	32.60	36.60	49.20
4199862.48	4.40	4.40	4.30	7.50	20.10	25.10	25.10	30.40	40.90
4199814.56	3.90	3.60	4.50	15.70	30.90	22.30	14.10	20.60	22.20
4199766.64	2.50	3.30	4.40	9.40	12.80	8.20	6.80	11.50	11.10
4199718.72	-0.20	0.20	0.60	1.10	3.20	3.30	5.20	5.50	6.00
4199670.80	-0.30	-0.30	-0.30	-0.30	1.30	2.00	2.50	2.80	3.70
4199622.88	-0.30	-0.30	-0.30	-0.30	-0.30	0.00	0.80	1.80	2.50
4199574.96	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.10	0.30
4199527.04	0.20	0.20	0.20	0.00	-0.20	-0.30	-0.30	-0.30	-0.30
4199479.12	1.70	1.60	1.50	0.50	0.10	-0.20	-0.30	-0.30	-0.30
4199431.20	1.90	1.90	2.00	0.90	0.30	0.10	-0.20	-0.30	-0.30
4199383.28	1.90	1.90	1.70	0.60	0.40	0.20	0.00	-0.10	-0.30
4199335.36	1.90	1.90	1.40	0.60	0.40	0.30	0.20	0.00	-0.10
4199287.44	1.80	1.70	1.70	0.70	0.30	0.30	0.20	0.10	0.00

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	58.80	57.80	54.90	49.70	63.40	56.10	36.30	19.70	8.70
4200197.92	68.00	81.90	76.60	69.70	81.40	73.50	49.90	35.00	18.50
4200150.00	65.50	85.00	98.60	95.40	90.20	81.00	67.80	48.10	30.10
4200102.08	67.30	80.50	95.80	91.30	77.20	69.70	68.80	55.70	35.20
4200054.16	79.30	84.70	91.40	89.10	76.80	63.20	55.80	52.90	44.20
4200006.24	75.60	76.90	83.90	93.40	88.60	73.10	50.70	45.10	54.70
4199958.32	65.80	61.20	69.30	77.10	79.30	66.00	48.10	36.70	44.20
4199910.40	50.70	43.60	53.60	57.90	68.30	52.00	38.00	29.00	31.40
4199862.48	35.30	30.10	36.40	49.00	64.80	54.70	34.90	24.90	23.80
4199814.56	19.50	18.70	26.40	43.80	61.70	55.40	34.70	23.70	21.10
4199766.64	11.10	15.20	24.90	42.00	62.10	56.50	35.50	21.90	17.50
4199718.72	8.60	14.80	26.70	41.00	55.90	57.00	40.00	22.30	13.00
4199670.80	8.20	20.20	30.30	40.40	46.00	43.00	32.40	19.00	11.00
4199622.88	6.80	21.80	26.30	26.30	32.10	30.80	22.60	14.80	9.80
4199574.96	2.40	8.60	13.00	14.70	20.00	18.10	15.00	11.20	8.20
4199527.04	-0.30	0.60	2.40	5.50	9.10	10.60	9.40	8.00	10.20
4199479.12	-0.30	-0.30	-0.30	0.00	1.40	3.40	6.10	7.10	13.60
4199431.20	-0.30	-0.30	-0.30	-0.30	-0.30	-0.10	2.30	5.50	13.20
4199383.28	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.20	2.20	10.80
4199335.36	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	0.20	5.00
4199287.44	-0.10	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	2.60

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 544226.26	544274.83	544323.40
4200245.84	4.20	3.90	2.70
4200197.92	9.00	4.40	3.20
4200150.00	16.10	6.60	3.50
4200102.08	19.50	12.20	8.70
4200054.16	36.30	25.60	24.40
4200006.24	56.10	47.70	46.80
4199958.32	51.70	54.90	51.90
4199910.40	36.00	44.30	38.90
4199862.48	27.90	33.20	28.10
4199814.56	20.50	20.10	18.60
4199766.64	13.50	12.50	12.50
4199718.72	10.10	9.10	9.20
4199670.80	8.00	7.00	7.00
4199622.88	6.50	5.30	5.30
4199574.96	5.70	4.30	4.20
4199527.04	6.80	3.80	3.50
4199479.12	10.00	4.00	3.40
4199431.20	15.20	5.90	4.00
4199383.28	17.70	6.90	4.00
4199335.36	9.30	5.20	3.80
4199287.44	4.60	4.00	3.60

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200197.92	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200150.00	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200102.08	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200054.16	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200006.24	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199958.32	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199910.40	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199862.48	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	776.30	776.30	776.30	776.30	101.50	101.50	776.30	776.30	776.30
4200197.92	776.30	101.50	101.50	101.50	101.50	101.50	101.50	776.30	776.30
4200150.00	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	776.30
4200102.08	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	776.30
4200054.16	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	101.50
4200006.24	776.30	101.50	101.50	93.40	93.90	101.50	776.30	776.30	101.50
4199958.32	776.30	776.30	776.30	101.50	101.50	101.50	776.30	776.30	776.30
4199910.40	776.30	776.30	776.30	776.30	101.50	776.30	776.30	776.30	776.30
4199862.48	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)		
	544226.26	544274.83	544323.40
4200245.84	776.30	776.30	776.30
4200197.92	776.30	776.30	776.30
4200150.00	776.30	776.30	776.30
4200102.08	776.30	776.30	776.30
4200054.16	776.30	776.30	776.30
4200006.24	101.50	101.50	101.50
4199958.32	101.50	101.50	101.50
4199910.40	776.30	101.50	101.50
4199862.48	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(	543725.3,	4199765.6,	10.9,	776.3,	0.0);	(	543740.3,	4199808.3,	20.4,	776.3,	0.0);
(	543752.7,	4199850.7,	37.8,	776.3,	0.0);	(	543693.5,	4199929.8,	41.2,	776.3,	0.0);
(	543541.7,	4200051.0,	21.7,	776.3,	0.0);	(	544129.2,	4199589.6,	12.4,	776.3,	0.0);
(	544149.4,	4199628.2,	12.2,	776.3,	0.0);	(	544165.7,	4199669.2,	11.8,	776.3,	0.0);
(	543719.3,	4199883.0,	41.6,	776.3,	0.0);						

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: Oak Hill HRA - 1 Year.SFC Met Version: 18081
Profile file: Oak Hill HRA - 1 Year.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23234 Upper air station no.: 23230
Name: SAN_FRANCISCO/INT'L_ARPT Name: OAKLAND/WSO_AP
Year: 2013 Year: 2013

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
14	01	01	1	01	-3.0	0.074	-9.000	-9.000	-999.	49.	12.6	0.06	0.49	1.00	1.01	245.	10.0	282.0	2.0
14	01	01	1	02	-4.3	0.087	-9.000	-9.000	-999.	62.	13.9	0.06	0.49	1.00	1.25	263.	10.0	279.9	2.0
14	01	01	1	03	-3.6	0.080	-9.000	-9.000	-999.	55.	13.1	0.06	0.49	1.00	1.13	237.	10.0	279.2	2.0
14	01	01	1	04	-4.1	0.085	-9.000	-9.000	-999.	59.	13.6	0.06	0.49	1.00	1.21	224.	10.0	278.8	2.0
14	01	01	1	05	-4.9	0.089	-9.000	-9.000	-999.	63.	13.0	0.02	0.49	1.00	1.52	194.	10.0	279.2	2.0
14	01	01	1	06	-3.9	0.083	-9.000	-9.000	-999.	57.	13.4	0.06	0.49	1.00	1.18	279.	10.0	278.8	2.0
14	01	01	1	07	-4.8	0.091	-9.000	-9.000	-999.	66.	14.4	0.06	0.49	1.00	1.31	255.	10.0	278.1	2.0
14	01	01	1	08	-1.7	0.061	-9.000	-9.000	-999.	36.	11.6	0.02	0.49	1.00	0.80	179.	10.0	279.9	2.0
14	01	01	1	09	1.7	0.115	0.068	0.020	7.	93.	-79.8	0.04	0.49	0.37	1.47	156.	10.0	281.4	2.0
14	01	01	1	10	35.6	0.069	0.433	0.021	82.	44.	-1.0	0.00	0.49	0.24	1.13	87.	10.0	283.1	2.0
14	01	01	1	11	60.5	0.078	0.643	0.019	160.	52.	-1.0	0.00	0.49	0.19	1.25	56.	10.0	283.8	2.0
14	01	01	1	12	61.1	0.110	0.696	0.018	201.	87.	-2.0	0.00	0.49	0.18	1.96	38.	10.0	284.2	2.0
14	01	01	1	13	63.2	0.121	0.733	0.016	227.	100.	-2.5	0.00	0.49	0.17	2.20	30.	10.0	284.9	2.0
14	01	01	1	14	55.9	0.095	0.725	0.015	248.	70.	-1.4	0.00	0.49	0.18	1.64	64.	10.0	284.9	2.0
14	01	01	1	15	40.1	0.067	0.668	0.014	270.	42.	-1.0	0.00	0.49	0.21	1.08	29.	10.0	285.9	2.0
14	01	01	1	16	13.4	0.065	0.469	0.014	278.	40.	-1.9	0.00	0.49	0.29	1.16	50.	10.0	285.9	2.0
14	01	01	1	17	-1.0	0.043	-9.000	-9.000	-999.	22.	7.3	0.00	0.49	0.53	0.97	22.	10.0	285.9	2.0
14	01	01	1	18	-27.5	0.275	-9.000	-9.000	-999.	347.	83.3	0.06	0.49	1.00	3.75	282.	10.0	285.4	2.0
14	01	01	1	19	-19.4	0.193	-9.000	-9.000	-999.	206.	40.9	0.06	0.49	1.00	2.67	268.	10.0	284.2	2.0
14	01	01	1	20	-2.0	0.065	-9.000	-9.000	-999.	57.	12.5	0.04	0.49	1.00	0.80	144.	10.0	284.2	2.0
14	01	01	1	21	-1.4	0.058	-9.000	-9.000	-999.	33.	12.6	0.02	0.49	1.00	0.67	217.	10.0	283.8	2.0
14	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	0.49	1.00	0.00	0.	10.0	284.2	2.0
14	01	01	1	23	-2.4	0.065	-9.000	-9.000	-999.	40.	10.5	0.02	0.49	1.00	1.04	360.	10.0	283.1	2.0
14	01	01	1	24	-2.2	0.064	-9.000	-9.000	-999.	39.	10.5	0.02	0.49	1.00	0.99	310.	10.0	282.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.0	1	245.	1.01	282.1	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	0.00140	0.00159	0.00175	0.00180	0.00191	0.00188	0.00165	0.00187	0.00211
4200197.92	0.00144	0.00167	0.00189	0.00204	0.00226	0.00219	0.00194	0.00217	0.00248
4200150.00	0.00148	0.00172	0.00195	0.00222	0.00228	0.00225	0.00261	0.00266	0.00303
4200102.08	0.00155	0.00177	0.00197	0.00208	0.00215	0.00326	0.00380	0.00338	0.00370
4200054.16	0.00166	0.00188	0.00212	0.00228	0.00279	0.00392	0.00375	0.00370	0.00465
4200006.24	0.00172	0.00203	0.00245	0.00299	0.00369	0.00433	0.00388	0.00446	0.00619
4199958.32	0.00175	0.00209	0.00255	0.00320	0.00412	0.00460	0.00391	0.00535	0.00860
4199910.40	0.00172	0.00209	0.00258	0.00327	0.00424	0.00406	0.00433	0.00641	0.01148
4199862.48	0.00165	0.00202	0.00252	0.00326	0.00310	0.00359	0.00516	0.00744	0.01380
4199814.56	0.00157	0.00192	0.00243	0.00267	0.00233	0.00383	0.00768	0.00961	0.01768
4199766.64	0.00148	0.00182	0.00231	0.00296	0.00365	0.00579	0.00915	0.01408	0.03438
4199718.72	0.00138	0.00168	0.00209	0.00269	0.00370	0.00521	0.00822	0.01448	0.03151
4199670.80	0.00134	0.00161	0.00198	0.00250	0.00334	0.00462	0.00680	0.01106	0.02099
4199622.88	0.00129	0.00154	0.00188	0.00234	0.00299	0.00399	0.00563	0.00851	0.01351
4199574.96	0.00124	0.00146	0.00176	0.00215	0.00269	0.00347	0.00462	0.00634	0.00858
4199527.04	0.00119	0.00138	0.00164	0.00196	0.00239	0.00297	0.00379	0.00484	0.00589
4199479.12	0.00113	0.00130	0.00151	0.00176	0.00209	0.00253	0.00310	0.00377	0.00428
4199431.20	0.00105	0.00119	0.00137	0.00157	0.00183	0.00217	0.00257	0.00299	0.00323
4199383.28	0.00097	0.00108	0.00123	0.00139	0.00161	0.00187	0.00216	0.00242	0.00251
4199335.36	0.00088	0.00099	0.00111	0.00125	0.00142	0.00162	0.00183	0.00199	0.00201
4199287.44	0.00081	0.00090	0.00101	0.00112	0.00126	0.00142	0.00156	0.00166	0.00164

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	0.00226	0.00232	0.00235	0.00236	0.00223	0.00213	0.00231	0.00325	0.00333
4200197.92	0.00267	0.00275	0.00278	0.00273	0.00259	0.00242	0.00228	0.00243	0.00334
4200150.00	0.00328	0.00341	0.00341	0.00328	0.00308	0.00281	0.00252	0.00233	0.00277
4200102.08	0.00414	0.00437	0.00433	0.00409	0.00375	0.00334	0.00291	0.00258	0.00270
4200054.16	0.00548	0.00586	0.00571	0.00523	0.00464	0.00402	0.00346	0.00299	0.00270
4200006.24	0.00792	0.00841	0.00791	0.00696	0.00592	0.00493	0.00419	0.00363	0.00304
4199958.32	0.01316	0.01359	0.01205	0.01002	0.00803	0.00639	0.00528	0.00481	0.00389
4199910.40	0.01912	0.02697	0.02167	0.01623	0.01182	0.00889	0.00734	0.00727	0.00597
4199862.48	0.02467	0.03579	0.03839	0.03014	0.01919	0.01309	0.01050	0.01086	0.00951
4199814.56	0.03174	0.04616	0.04521	0.04104	0.03093	0.01934	0.01440	0.01457	0.01287
4199766.64	0.08109	0.05688	0.04545	0.03995	0.03227	0.02271	0.01725	0.01832	0.01656
4199718.72	0.07753	0.05295	0.04041	0.03513	0.02616	0.01987	0.01626	0.01865	0.01906
4199670.80	0.04339	0.02886	0.03007	0.02692	0.02010	0.01583	0.01434	0.01827	0.01811
4199622.88	0.02264	0.01317	0.01421	0.01380	0.01222	0.01156	0.01347	0.01592	0.01530
4199574.96	0.01069	0.01094	0.00788	0.00797	0.00761	0.00944	0.01108	0.01214	0.01173
4199527.04	0.00633	0.00587	0.00494	0.00475	0.00527	0.00622	0.00721	0.00787	0.00807
4199479.12	0.00434	0.00389	0.00323	0.00284	0.00286	0.00328	0.00398	0.00464	0.00466
4199431.20	0.00316	0.00282	0.00240	0.00211	0.00196	0.00200	0.00228	0.00273	0.00281
4199383.28	0.00240	0.00214	0.00187	0.00167	0.00153	0.00147	0.00152	0.00171	0.00197
4199335.36	0.00189	0.00169	0.00150	0.00136	0.00125	0.00118	0.00116	0.00121	0.00136
4199287.44	0.00153	0.00137	0.00124	0.00113	0.00105	0.00098	0.00094	0.00094	0.00100

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)		
	544226.26	544274.83	544323.40
4200245.84	0.00299	0.00268	0.00241
4200197.92	0.00328	0.00293	0.00263
4200150.00	0.00342	0.00325	0.00291
4200102.08	0.00361	0.00355	0.00330
4200054.16	0.00270	0.00325	0.00308
4200006.24	0.00267	0.00249	0.00229
4199958.32	0.00330	0.00290	0.00264
4199910.40	0.00478	0.00380	0.00365
4199862.48	0.00727	0.00557	0.00560
4199814.56	0.01083	0.00921	0.00808
4199766.64	0.01422	0.01173	0.00979
4199718.72	0.01551	0.01272	0.01058
4199670.80	0.01529	0.01283	0.01084
4199622.88	0.01358	0.01184	0.01034
4199574.96	0.01098	0.01005	0.00917
4199527.04	0.00819	0.00790	0.00757
4199479.12	0.00556	0.00579	0.00585
4199431.20	0.00314	0.00401	0.00426
4199383.28	0.00187	0.00266	0.00295
4199335.36	0.00153	0.00177	0.00200
4199287.44	0.00110	0.00123	0.00139

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
543725.33	4199765.65	0.02548	543740.34	4199808.34	0.01862
543752.74	4199850.74	0.01724	543693.54	4199929.85	0.00605
543541.70	4200050.99	0.00276	544129.17	4199589.60	0.01318
544149.43	4199628.20	0.01644	544165.70	4199669.23	0.01880
543719.30	4199883.02	0.00936			

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (35160 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.08109 AT (543789.13, 4199766.64, 11.10, 776.30, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.07753 AT (543789.13, 4199718.72, 8.60, 776.30, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.05688 AT (543837.70, 4199766.64, 15.20, 776.30, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.05295 AT (543837.70, 4199718.72, 14.80, 776.30, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.04616 AT (543837.70, 4199814.56, 18.70, 776.30, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.04545 AT (543886.27, 4199766.64, 24.90, 776.30, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.04521 AT (543886.27, 4199814.56, 26.40, 776.30, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.04339 AT (543789.13, 4199670.80, 8.20, 776.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.04104 AT (543934.84, 4199814.56, 43.80, 776.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.04041 AT (543886.27, 4199718.72, 26.70, 776.30, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   3 Warning Message(s)
A Total of   1167 Informational Message(s)

A Total of   35160 Hours Were Processed

A Total of   761 Calm Hours Identified

A Total of   406 Missing Hours Identified (1.15 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
ME W186   83   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   83   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W492   1   METEXT: SURFDATA YR .NE. 1st YR of file, adj to match file StartYR 2014

   ****
   *** AERMOD Finishes Successfully ***
   ****

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.1
** Lakes Environmental Software Inc.
** Date: 11/23/2022
** File: Oak Hill HRA - 2 year\Oak Hill HRA - 2 year.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Oak Hill HRA
   TITLETWO Oak Hill Apartments Construction DPM - 2 year
   MODELOPT CONC NOCHKD
   AVERTIME PERIOD
   URBANOPT 262231 Marin_County_(2020)
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "Oak Hill HRA - 2 year.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA1       AREAPOLY   543747.773  4199717.265        6.230
** DESCRSRC Area of Disturbance
** Source Parameters **
   SRCPARAM PAREA1       5.6167E-09     3.660        36
   AREAVERT PAREA1       543747.773 4199717.265 543766.136 4199953.167
   AREAVERT PAREA1       543819.922 4199905.221 543849.886 4199880.646
   AREAVERT PAREA1       543883.428 4199870.418 543884.130 4199870.221
   AREAVERT PAREA1       543884.229 4199867.136 543896.433 4199863.754
   AREAVERT PAREA1       543900.201 4199862.662 543906.488 4199857.503
   AREAVERT PAREA1       543930.671 4199836.738 543935.082 4199832.957
   AREAVERT PAREA1       543949.327 4199814.271 543954.176 4199801.810
   AREAVERT PAREA1       543953.602 4199796.765 543950.996 4199788.249
   AREAVERT PAREA1       543942.416 4199764.162 543929.906 4199742.611
   AREAVERT PAREA1       543919.789 4199725.626 543915.827 4199695.423
   AREAVERT PAREA1       543917.498 4199685.834 543915.558 4199678.719
```

```
   AREAVERT PAREA1       543880.889 4199651.284 543873.460 4199645.926
   AREAVERT PAREA1       543851.906 4199632.165 543845.573 4199630.948
   AREAVERT PAREA1       543798.445 4199648.240 543789.799 4199644.587
   AREAVERT PAREA1       543786.690 4199652.712 543781.604 4199654.432
   AREAVERT PAREA1       543774.798 4199674.777 543773.526 4199679.638
   AREAVERT PAREA1       543766.478 4199693.560 543764.925 4199696.356
   AREAVERT PAREA1       543762.233 4199699.772 543767.513 4199702.567
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "Oak Hill HRA - 2 year.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "..\Oak Hill HRA - 1 Year\Oak Hill HRA - 1 Year.SFC"
   PROFFILE "..\Oak Hill HRA - 1 Year\Oak Hill HRA - 1 Year.PFL"
   SURFDATA 23234 2013 SAN_FRANCISCO/INT'L_ARPT
   UAIRDATA 23230 2013 OAKLAND/WSO_AP
   PROFBASE 2.4 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL "OAK HILL HRA - 2 YEAR.AD\PE00GALL.PLT" 31
   SUMMFILE "Oak Hill HRA - 2 year.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
```

```
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186      83       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187      83       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*********************************
*** SETUP Finishes Successfully ***
*********************************
```

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

                                        ***   MODEL SETUP OPTIONS SUMMARY   ***
- -

** Model Options Selected:
     * Model Allows User-Specified Options
     * Model Is Setup For Calculation of Average CONCentration Values.
     * NO GAS DEPOSITION Data Provided.
     * NO PARTICLE DEPOSITION Data Provided.
     * Model Uses NO DRY DEPLETION. DDPLETE = F
     * Model Uses NO WET DEPLETION. WETDPLT = F
     * Stack-tip Downwash.
     * Model Accounts for ELEVated Terrain Effects.
     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses URBAN Dispersion Algorithm for the SBL for   1 Source(s),
       for Total of   1 Urban Area(s):
  Urban Population =   262231.0 ; Urban Roughness Length = 1.000 m
     * Urban Roughness Length of 1.0 Meter Used.
     * NOCHKD   - Suppresses checking of date sequence in meteorology files
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * CCVR_Sub - Meteorological data includes CCVR substitutions
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

**Model Calculates PERIOD Averages Only

**This Run Includes: 1 Source(s);   1 Source Group(s); and   450 Receptor(s)

               with: 0 POINT(s), including
                          0 POINTCAP(s) and   0 POINTHOR(s)
                and: 0 VOLUME source(s)
                and: 1 AREA type source(s)
                and: 0 LINE source(s)
                and: 0 RLINE/RLINEXT source(s)
                and: 0 OPENPIT source(s)
                and: 0 BUOYANT LINE source(s) with a total of   0 line(s)
                and: 0 SWPOINT source(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 18081

**Output Options Selected:

```
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =     2.40 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                              ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   Oak Hill HRA - 2 year.err
**File for Summary of Results:   Oak Hill HRA - 2 year.sum
```

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
PAREA1	0	0.56167E-08	543747.8	4199717.3	6.2	3.66	36	0.00	YES	

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	PAREA1 ,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	262231.	PAREA1 ,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

543352.0, 543400.6, 543449.1, 543497.7, 543546.3, 543594.8, 543643.4, 543692.0, 543740.6, 543789.1,
543837.7, 543886.3, 543934.8, 543983.4, 544032.0, 544080.6, 544129.1, 544177.7, 544226.3, 544274.8,
544323.4,

*** Y-COORDINATES OF GRID ***
(METERS)

4199287.4, 4199335.4, 4199383.3, 4199431.2, 4199479.1, 4199527.0, 4199575.0, 4199622.9, 4199670.8, 4199718.7,
4199766.6, 4199814.6, 4199862.5, 4199910.4, 4199958.3, 4200006.2, 4200054.2, 4200102.1, 4200150.0, 4200197.9,
4200245.8,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	12.70	15.10	18.60	24.20	26.50	31.50	53.30	66.90	63.20
4200197.92	11.40	13.00	16.60	21.20	23.00	29.10	43.80	57.50	63.30
4200150.00	12.70	12.50	16.90	19.80	25.50	31.60	31.70	41.00	48.60
4200102.08	12.60	14.20	18.50	24.10	29.60	21.60	22.70	33.90	50.90
4200054.16	9.60	13.30	17.00	22.00	22.00	17.50	26.60	45.30	62.10
4200006.24	8.30	9.60	10.00	11.20	12.00	16.70	28.90	48.90	63.90
4199958.32	7.40	7.50	7.20	6.90	7.60	16.90	34.90	48.40	55.40
4199910.40	4.90	5.70	5.90	6.10	8.40	21.20	32.60	36.60	49.20
4199862.48	4.40	4.40	4.30	7.50	20.10	25.10	25.10	30.40	40.90
4199814.56	3.90	3.60	4.50	15.70	30.90	22.30	14.10	20.60	22.20
4199766.64	2.50	3.30	4.40	9.40	12.80	8.20	6.80	11.50	11.10
4199718.72	-0.20	0.20	0.60	1.10	3.20	3.30	5.20	5.50	6.00
4199670.80	-0.30	-0.30	-0.30	-0.30	1.30	2.00	2.50	2.80	3.70
4199622.88	-0.30	-0.30	-0.30	-0.30	-0.30	0.00	0.80	1.80	2.50
4199574.96	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.10	0.30
4199527.04	0.20	0.20	0.20	0.00	-0.20	-0.30	-0.30	-0.30	-0.30
4199479.12	1.70	1.60	1.50	0.50	0.10	-0.20	-0.30	-0.30	-0.30
4199431.20	1.90	1.90	2.00	0.90	0.30	0.10	-0.20	-0.30	-0.30
4199383.28	1.90	1.90	1.70	0.60	0.40	0.20	0.00	-0.10	-0.30
4199335.36	1.90	1.90	1.40	0.60	0.40	0.30	0.20	0.00	-0.10
4199287.44	1.80	1.70	1.70	0.70	0.30	0.30	0.20	0.10	0.00

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	58.80	57.80	54.90	49.70	63.40	56.10	36.30	19.70	8.70
4200197.92	68.00	81.90	76.60	69.70	81.40	73.50	49.90	35.00	18.50
4200150.00	65.50	85.00	98.60	95.40	90.20	81.00	67.80	48.10	30.10
4200102.08	67.30	80.50	95.80	91.30	77.20	69.70	68.80	55.70	35.20
4200054.16	79.30	84.70	91.40	89.10	76.80	63.20	55.80	52.90	44.20
4200006.24	75.60	76.90	83.90	93.40	88.60	73.10	50.70	45.10	54.70
4199958.32	65.80	61.20	69.30	77.10	79.30	66.00	48.10	36.70	44.20
4199910.40	50.70	43.60	53.60	57.90	68.30	52.00	38.00	29.00	31.40
4199862.48	35.30	30.10	36.40	49.00	64.80	54.70	34.90	24.90	23.80
4199814.56	19.50	18.70	26.40	43.80	61.70	55.40	34.70	23.70	21.10
4199766.64	11.10	15.20	24.90	42.00	62.10	56.50	35.50	21.90	17.50
4199718.72	8.60	14.80	26.70	41.00	55.90	57.00	40.00	22.30	13.00
4199670.80	8.20	20.20	30.30	40.40	46.00	43.00	32.40	19.00	11.00
4199622.88	6.80	21.80	26.30	26.30	32.10	30.80	22.60	14.80	9.80
4199574.96	2.40	8.60	13.00	14.70	20.00	18.10	15.00	11.20	8.20
4199527.04	-0.30	0.60	2.40	5.50	9.10	10.60	9.40	8.00	10.20
4199479.12	-0.30	-0.30	-0.30	0.00	1.40	3.40	6.10	7.10	13.60
4199431.20	-0.30	-0.30	-0.30	-0.30	-0.30	-0.10	2.30	5.50	13.20
4199383.28	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.20	2.20	10.80
4199335.36	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	0.20	5.00
4199287.44	-0.10	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	-0.30	2.60

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 544226.26	544274.83	544323.40
4200245.84	4.20	3.90	2.70
4200197.92	9.00	4.40	3.20
4200150.00	16.10	6.60	3.50
4200102.08	19.50	12.20	8.70
4200054.16	36.30	25.60	24.40
4200006.24	56.10	47.70	46.80
4199958.32	51.70	54.90	51.90
4199910.40	36.00	44.30	38.90
4199862.48	27.90	33.20	28.10
4199814.56	20.50	20.10	18.60
4199766.64	13.50	12.50	12.50
4199718.72	10.10	9.10	9.20
4199670.80	8.00	7.00	7.00
4199622.88	6.50	5.30	5.30
4199574.96	5.70	4.30	4.20
4199527.04	6.80	3.80	3.50
4199479.12	10.00	4.00	3.40
4199431.20	15.20	5.90	4.00
4199383.28	17.70	6.90	4.00
4199335.36	9.30	5.20	3.80
4199287.44	4.60	4.00	3.60

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200197.92	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200150.00	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200102.08	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200054.16	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4200006.24	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199958.32	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199910.40	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199862.48	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	776.30	776.30	776.30	776.30	101.50	101.50	776.30	776.30	776.30
4200197.92	776.30	101.50	101.50	101.50	101.50	101.50	101.50	776.30	776.30
4200150.00	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	776.30
4200102.08	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	776.30
4200054.16	776.30	101.50	101.50	101.50	101.50	101.50	101.50	101.50	101.50
4200006.24	776.30	101.50	101.50	93.40	93.90	101.50	776.30	776.30	101.50
4199958.32	776.30	776.30	776.30	101.50	101.50	101.50	776.30	776.30	776.30
4199910.40	776.30	776.30	776.30	776.30	101.50	776.30	776.30	776.30	776.30
4199862.48	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 544226.26	544274.83	544323.40
4200245.84	776.30	776.30	776.30
4200197.92	776.30	776.30	776.30
4200150.00	776.30	776.30	776.30
4200102.08	776.30	776.30	776.30
4200054.16	776.30	776.30	776.30
4200006.24	101.50	101.50	101.50
4199958.32	101.50	101.50	101.50
4199910.40	776.30	101.50	101.50
4199862.48	776.30	776.30	776.30
4199814.56	776.30	776.30	776.30
4199766.64	776.30	776.30	776.30
4199718.72	776.30	776.30	776.30
4199670.80	776.30	776.30	776.30
4199622.88	776.30	776.30	776.30
4199574.96	776.30	776.30	776.30
4199527.04	776.30	776.30	776.30
4199479.12	776.30	776.30	776.30
4199431.20	776.30	776.30	776.30
4199383.28	776.30	776.30	776.30
4199335.36	776.30	776.30	776.30
4199287.44	776.30	776.30	776.30

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(	543725.3,	4199765.6,	10.9,	776.3,	0.0);	(	543740.3,	4199808.3,	20.4,	776.3,	0.0);
(	543752.7,	4199850.7,	37.8,	776.3,	0.0);	(	543693.5,	4199929.8,	41.2,	776.3,	0.0);
(	543541.7,	4200051.0,	21.7,	776.3,	0.0);	(	544129.2,	4199589.6,	12.4,	776.3,	0.0);
(	544149.4,	4199628.2,	12.2,	776.3,	0.0);	(	544165.7,	4199669.2,	11.8,	776.3,	0.0);
(	543719.3,	4199883.0,	41.6,	776.3,	0.0);						

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\Oak Hill HRA - 1 Year\Oak Hill HRA - 1 Year.SFC Met Version: 18081
Profile file: ..\Oak Hill HRA - 1 Year\Oak Hill HRA - 1 Year.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23234 Upper air station no.: 23230
Name: SAN_FRANCISCO/INT'L_ARPT Name: OAKLAND/WSO_AP
Year: 2013 Year: 2013

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
14	01	01	1	01	-3.0	0.074	-9.000	-9.000	-999.	49.	12.6	0.06	0.49	1.00	1.01	245.	10.0	282.0	2.0
14	01	01	1	02	-4.3	0.087	-9.000	-9.000	-999.	62.	13.9	0.06	0.49	1.00	1.25	263.	10.0	279.9	2.0
14	01	01	1	03	-3.6	0.080	-9.000	-9.000	-999.	55.	13.1	0.06	0.49	1.00	1.13	237.	10.0	279.2	2.0
14	01	01	1	04	-4.1	0.085	-9.000	-9.000	-999.	59.	13.6	0.06	0.49	1.00	1.21	224.	10.0	278.8	2.0
14	01	01	1	05	-4.9	0.089	-9.000	-9.000	-999.	63.	13.0	0.02	0.49	1.00	1.52	194.	10.0	279.2	2.0
14	01	01	1	06	-3.9	0.083	-9.000	-9.000	-999.	57.	13.4	0.06	0.49	1.00	1.18	279.	10.0	278.8	2.0
14	01	01	1	07	-4.8	0.091	-9.000	-9.000	-999.	66.	14.4	0.06	0.49	1.00	1.31	255.	10.0	278.1	2.0
14	01	01	1	08	-1.7	0.061	-9.000	-9.000	-999.	36.	11.6	0.02	0.49	1.00	0.80	179.	10.0	279.9	2.0
14	01	01	1	09	1.7	0.115	0.068	0.020	7.	93.	-79.8	0.04	0.49	0.37	1.47	156.	10.0	281.4	2.0
14	01	01	1	10	35.6	0.069	0.433	0.021	82.	44.	-1.0	0.00	0.49	0.24	1.13	87.	10.0	283.1	2.0
14	01	01	1	11	60.5	0.078	0.643	0.019	160.	52.	-1.0	0.00	0.49	0.19	1.25	56.	10.0	283.8	2.0
14	01	01	1	12	61.1	0.110	0.696	0.018	201.	87.	-2.0	0.00	0.49	0.18	1.96	38.	10.0	284.2	2.0
14	01	01	1	13	63.2	0.121	0.733	0.016	227.	100.	-2.5	0.00	0.49	0.17	2.20	30.	10.0	284.9	2.0
14	01	01	1	14	55.9	0.095	0.725	0.015	248.	70.	-1.4	0.00	0.49	0.18	1.64	64.	10.0	284.9	2.0
14	01	01	1	15	40.1	0.067	0.668	0.014	270.	42.	-1.0	0.00	0.49	0.21	1.08	29.	10.0	285.9	2.0
14	01	01	1	16	13.4	0.065	0.469	0.014	278.	40.	-1.9	0.00	0.49	0.29	1.16	50.	10.0	285.9	2.0
14	01	01	1	17	-1.0	0.043	-9.000	-9.000	-999.	22.	7.3	0.00	0.49	0.53	0.97	22.	10.0	285.9	2.0
14	01	01	1	18	-27.5	0.275	-9.000	-9.000	-999.	347.	83.3	0.06	0.49	1.00	3.75	282.	10.0	285.4	2.0
14	01	01	1	19	-19.4	0.193	-9.000	-9.000	-999.	206.	40.9	0.06	0.49	1.00	2.67	268.	10.0	284.2	2.0
14	01	01	1	20	-2.0	0.065	-9.000	-9.000	-999.	57.	12.5	0.04	0.49	1.00	0.80	144.	10.0	284.2	2.0
14	01	01	1	21	-1.4	0.058	-9.000	-9.000	-999.	33.	12.6	0.02	0.49	1.00	0.67	217.	10.0	283.8	2.0
14	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	0.49	1.00	0.00	0.	10.0	284.2	2.0
14	01	01	1	23	-2.4	0.065	-9.000	-9.000	-999.	40.	10.5	0.02	0.49	1.00	1.04	360.	10.0	283.1	2.0
14	01	01	1	24	-2.2	0.064	-9.000	-9.000	-999.	39.	10.5	0.02	0.49	1.00	0.99	310.	10.0	282.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
14	01	01	01	10.0	1	245.	1.01	282.1	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	543352.00	543400.57	543449.14	543497.71	543546.28	543594.85	543643.42	543691.99	543740.56
4200245.84	0.00030	0.00034	0.00038	0.00039	0.00041	0.00041	0.00036	0.00040	0.00046
4200197.92	0.00031	0.00036	0.00041	0.00044	0.00049	0.00048	0.00042	0.00047	0.00054
4200150.00	0.00032	0.00037	0.00042	0.00048	0.00049	0.00049	0.00056	0.00058	0.00066
4200102.08	0.00034	0.00038	0.00043	0.00045	0.00047	0.00071	0.00082	0.00073	0.00080
4200054.16	0.00036	0.00041	0.00046	0.00049	0.00060	0.00085	0.00081	0.00080	0.00101
4200006.24	0.00037	0.00044	0.00053	0.00065	0.00080	0.00094	0.00084	0.00097	0.00134
4199958.32	0.00038	0.00045	0.00055	0.00069	0.00089	0.00100	0.00085	0.00116	0.00186
4199910.40	0.00037	0.00045	0.00056	0.00071	0.00092	0.00088	0.00094	0.00139	0.00249
4199862.48	0.00036	0.00044	0.00055	0.00071	0.00067	0.00078	0.00112	0.00161	0.00299
4199814.56	0.00034	0.00042	0.00053	0.00058	0.00051	0.00083	0.00166	0.00208	0.00383
4199766.64	0.00032	0.00039	0.00050	0.00064	0.00079	0.00126	0.00198	0.00305	0.00745
4199718.72	0.00030	0.00036	0.00045	0.00058	0.00080	0.00113	0.00178	0.00314	0.00683
4199670.80	0.00029	0.00035	0.00043	0.00054	0.00072	0.00100	0.00147	0.00240	0.00455
4199622.88	0.00028	0.00033	0.00041	0.00051	0.00065	0.00086	0.00122	0.00184	0.00293
4199574.96	0.00027	0.00032	0.00038	0.00047	0.00058	0.00075	0.00100	0.00137	0.00186
4199527.04	0.00026	0.00030	0.00035	0.00042	0.00052	0.00064	0.00082	0.00105	0.00128
4199479.12	0.00025	0.00028	0.00033	0.00038	0.00045	0.00055	0.00067	0.00082	0.00093
4199431.20	0.00023	0.00026	0.00030	0.00034	0.00040	0.00047	0.00056	0.00065	0.00070
4199383.28	0.00021	0.00023	0.00027	0.00030	0.00035	0.00040	0.00047	0.00052	0.00054
4199335.36	0.00019	0.00021	0.00024	0.00027	0.00031	0.00035	0.00040	0.00043	0.00044
4199287.44	0.00018	0.00020	0.00022	0.00024	0.00027	0.00031	0.00034	0.00036	0.00036

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)								
	543789.13	543837.70	543886.27	543934.84	543983.41	544031.98	544080.55	544129.12	544177.69
4200245.84	0.00049	0.00050	0.00051	0.00051	0.00048	0.00046	0.00050	0.00070	0.00072
4200197.92	0.00058	0.00060	0.00060	0.00059	0.00056	0.00052	0.00049	0.00053	0.00072
4200150.00	0.00071	0.00074	0.00074	0.00071	0.00067	0.00061	0.00055	0.00050	0.00060
4200102.08	0.00090	0.00095	0.00094	0.00089	0.00081	0.00072	0.00063	0.00056	0.00059
4200054.16	0.00119	0.00127	0.00124	0.00113	0.00101	0.00087	0.00075	0.00065	0.00059
4200006.24	0.00172	0.00182	0.00171	0.00151	0.00128	0.00107	0.00091	0.00079	0.00066
4199958.32	0.00285	0.00294	0.00261	0.00217	0.00174	0.00138	0.00114	0.00104	0.00084
4199910.40	0.00414	0.00584	0.00469	0.00352	0.00256	0.00193	0.00159	0.00157	0.00129
4199862.48	0.00534	0.00775	0.00832	0.00653	0.00416	0.00284	0.00227	0.00235	0.00206
4199814.56	0.00688	0.01000	0.00979	0.00889	0.00670	0.00419	0.00312	0.00316	0.00279
4199766.64	0.01757	0.01232	0.00985	0.00865	0.00699	0.00492	0.00374	0.00397	0.00359
4199718.72	0.01679	0.01147	0.00875	0.00761	0.00567	0.00430	0.00352	0.00404	0.00413
4199670.80	0.00940	0.00625	0.00651	0.00583	0.00435	0.00343	0.00311	0.00396	0.00392
4199622.88	0.00491	0.00285	0.00308	0.00299	0.00265	0.00251	0.00292	0.00345	0.00331
4199574.96	0.00231	0.00237	0.00171	0.00173	0.00165	0.00205	0.00240	0.00263	0.00254
4199527.04	0.00137	0.00127	0.00107	0.00103	0.00114	0.00135	0.00156	0.00171	0.00175
4199479.12	0.00094	0.00084	0.00070	0.00061	0.00062	0.00071	0.00086	0.00101	0.00101
4199431.20	0.00068	0.00061	0.00052	0.00046	0.00043	0.00043	0.00049	0.00059	0.00061
4199383.28	0.00052	0.00046	0.00040	0.00036	0.00033	0.00032	0.00033	0.00037	0.00043
4199335.36	0.00041	0.00037	0.00033	0.00029	0.00027	0.00025	0.00025	0.00026	0.00030
4199287.44	0.00033	0.00030	0.00027	0.00025	0.00023	0.00021	0.00020	0.00020	0.00022

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** NETWORK ID: UCART1 ; NETWORK TYPE: GRIDCART ***

** CONC OF DPM IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS)		
	544226.26	544274.83	544323.40
4200245.84	0.00065	0.00058	0.00052
4200197.92	0.00071	0.00063	0.00057
4200150.00	0.00074	0.00070	0.00063
4200102.08	0.00078	0.00077	0.00071
4200054.16	0.00058	0.00070	0.00067
4200006.24	0.00058	0.00054	0.00050
4199958.32	0.00072	0.00063	0.00057
4199910.40	0.00104	0.00082	0.00079
4199862.48	0.00157	0.00121	0.00121
4199814.56	0.00235	0.00200	0.00175
4199766.64	0.00308	0.00254	0.00212
4199718.72	0.00336	0.00276	0.00229
4199670.80	0.00331	0.00278	0.00235
4199622.88	0.00294	0.00257	0.00224
4199574.96	0.00238	0.00218	0.00199
4199527.04	0.00177	0.00171	0.00164
4199479.12	0.00121	0.00126	0.00127
4199431.20	0.00068	0.00087	0.00092
4199383.28	0.00041	0.00058	0.00064
4199335.36	0.00033	0.00038	0.00043
4199287.44	0.00024	0.00027	0.00030

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE PERIOD (35160 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
543725.33	4199765.65	0.00552	543740.34	4199808.34	0.00403
543752.74	4199850.74	0.00373	543693.54	4199929.85	0.00131
543541.70	4200050.99	0.00060	544129.17	4199589.60	0.00286
544149.43	4199628.20	0.00356	544165.70	4199669.23	0.00407
543719.30	4199883.02	0.00203			

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (35160 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	0.01757	AT (543789.13, 4199766.64, 11.10, 776.30, 0.00)	GC	UCART1
	2ND HIGHEST VALUE IS	0.01679	AT (543789.13, 4199718.72, 8.60, 776.30, 0.00)	GC	UCART1
	3RD HIGHEST VALUE IS	0.01232	AT (543837.70, 4199766.64, 15.20, 776.30, 0.00)	GC	UCART1
	4TH HIGHEST VALUE IS	0.01147	AT (543837.70, 4199718.72, 14.80, 776.30, 0.00)	GC	UCART1
	5TH HIGHEST VALUE IS	0.01000	AT (543837.70, 4199814.56, 18.70, 776.30, 0.00)	GC	UCART1
	6TH HIGHEST VALUE IS	0.00985	AT (543886.27, 4199766.64, 24.90, 776.30, 0.00)	GC	UCART1
	7TH HIGHEST VALUE IS	0.00979	AT (543886.27, 4199814.56, 26.40, 776.30, 0.00)	GC	UCART1
	8TH HIGHEST VALUE IS	0.00940	AT (543789.13, 4199670.80, 8.20, 776.30, 0.00)	GC	UCART1
	9TH HIGHEST VALUE IS	0.00889	AT (543934.84, 4199814.56, 43.80, 776.30, 0.00)	GC	UCART1
	10TH HIGHEST VALUE IS	0.00875	AT (543886.27, 4199718.72, 26.70, 776.30, 0.00)	GC	UCART1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: NonDFAULT CONC ELEV NOCHKD URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   3 Warning Message(s)
A Total of   1167 Informational Message(s)

A Total of   35160 Hours Were Processed

A Total of   761 Calm Hours Identified

A Total of   406 Missing Hours Identified (1.15 Percent)

   ******** FATAL ERROR MESSAGES ********
              *** NONE ***

   ********   WARNING MESSAGES   ********
ME W186   83   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   83   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W492   1   METEXT: SURFDATA YR .NE. 1st YR of file, adj to match file StartYR 2014

   ****
   *** AERMOD Finishes Successfully ***
   ****

Construction start date			7/1/2023		5	days per week		
Construction end date			8/4/2025					
	Overlap?					# of days	year	tons/yr
Site Preparation	No	45	days	34.62%		45	2023	0.095
Grading	No	21		16.15%		21		0.015
Building Construction	No	64		49.23%		64		0.005
					total for 2023	130		
							year	tons/yr
Building Construction	Yes	262	days	100.00%		262	2024	0.01
					total for 2024	262		
							year	tons/yr
Building Construction	Yes	3	days	1.95%		3	2025	0.005
Paving	Yes	42	days	27.27%		42		0.005
Architectural coating	Yes	151	days	98.05%		151		0.005
					total for 2025	154		

		# of days	% of construction year	tons/yr	tons/yr	
	2023	45	34.62%	0.095	0.032884615	
		21	16.15%	0.015	0.002423077	
		64	49.23%	0.005	0.002461538	
2023 total days		**130**			**0.037769231**	**weighted average for 2023**
	2024	262	100.00%	0.01	0.01	
2024 total days		**262**			**0.01**	**weighted average for 2024**
	2025	3	1.95%	0.005	9.74026E-05	
		42	27.27%	0.005	0.001363636	
		151	98.05%	0.005	0.004902597	
2025 total days		**154**			**0.006363636**	**Average for 2025**

Oak Hill Apartments - Annual Average Emissions 2023 (0.25 year)

Estimate of Annual Construction DPM Emissions (as PM10 exhaust)

Total Annual PM10 Exhaust Emissions During Construction as estimated in the CalEEMod model (weighted average).	0.037769231	tons/year
Average Emissions	0.00108747	grams/sec
Total size of the emission source from AERMOD (~10.4 acres)	41941.5	meters squared
Average area source emission	2.59283E-08	grams/m2-sec

Cancer Risk from DPM for 3rd Trimester Scenario (0.25 years)

DPM Concentration at boundary of closest receptor	0.02548	ug/m3	from Aermod dispersion model
Cancer Potency Factor (CPF)	1.1	(mg/kg/day)^-1	
Daily Breathing Rate *DBR)	361	(l/kg of body weight-day)	
Exposure Duration (ED)	0.25	years	
Exposure Frequency (EF)	130	days	construction days in 2023
Age Sensitivity Factor (ASF)	10		
Fraction of Time at Home (FAH)	1		

Cancer Risk = DPM Concentration x CPF x DBR x ED x EF x ASF x FAH / 25550

3rd Trimester 2015 OEHHA CR 0.128703918 in one million

Chronic Non-cancer Hazard Index from DPM

Reference Exposure Level (REL) for DPM: 5 ug/m3

Chronic Non-cancer HI = Annual DPM/REL = 0.005096

Oak Hill Apartments - Annual Average Emissions 2024-2025 (2 year)

Estimate of Annual Construction DPM Emissions (as PM10 exhaust)

Total Annual PM10 Exhaust Emissions During Construction as estimated in the CalEEMod model (weighted average).	0.008181818	tons/year
Average Emissions	0.000235575	grams/sec
Total size of the emission source from AERMOD (~10.4 acres)	41941.5	meters squared
Average area source emission	5.61675E-09	grams/m2-sec

Cancer Risk from DPM for Infants (0-2)

DPM Concentration at boundary of closest receptor	0.00552	ug/m3	from Aermod dispersion model
Cancer Potency Factor (CPF)	1.1	(mg/kg/day)^-1	
Daily Breathing Rate *DBR)	1090	(l/kg of body weight-day)	
Exposure Duration (ED)	1.14	years	(total construction time in 2024 and 2025)
Exposure Frequency (EF)	262	days	(construction days/year)
Age Sensitivity Factor (ASF)	10		
Fraction of Time Spent at Home (FAH)	1		

Infant 2015 OEHHA Cancer Risk = DPM Concentration x CPF x DBR x ED x EF x ASF x FAH / 25550

CR	0.773701607	in one million

Chronic Non-cancer Hazard Index from DPM

Reference Exposure Level (REL) for DPM:		5	ug/m3
Chronic Non-cancer HI =	Annual DPM/REL =	0.001104	

Oak Hill Apartments - Annual Average Emissions 2024-2025 (2 year - Child)

Estimate of Annual Construction DPM Emissions (as PM10 exhaust)

Total Annual PM10 Exhaust Emissions During Construction as estmated in the CalEEMod model.	0.008181818	tons/year
Average Emissions	0.000235575	grams/sec
Total size of the emission source from AERMOD (~10.4 acres)	41941.5	meters squared
Average area source emission	5.61675E-09	grams/m2-sec

Cancer Risk from DPM

DPM Concentration at boundary of closest receptor	0.00552	ug/m3	from Aermod dispersion model
Cancer Potency Factor (CPF)	1.1	(mg/kg/day)^-1	
Daily Breathing Rate *DBR)	572	(l/kg of body weight-day)	
Exposure Duration (ED)	1.14	years	(total construction time in 2024 and 2025)
Exposure Frequency (EF)	262	days	(construction days/year)
Age Sensitivity Factor (ASF)	3		

Child 2015 OEHHA Cancer Risk = DPM Concentration x CPF x DBR x ED x EF x ASF / 25550

CR 0.121804767 in one million

Chronic Non-cancer Hazard Index from DPM

Reference Exposure Level (REL) for DPM: 5 ug/m3

Chronic Non-cancer HI = Annual DPM/REL = 0.001104

Oak Hill Apartments - Annual Average Emissions 2024-2025 (2 year - Adult)

Estimate of Annual Construction DPM Emissions (as PM10 exhaust)

Total Annual PM10 Exhaust Emissions During Construction as estmated in the CalEEMod model.	0.008181818	tons/year
Average Emissions	0.000235575	grams/sec
Total size of the emission source from AERMOD (~10.4 acres)	41941.5	meters squared
Average area source emission	5.61675E-09	grams/m2-sec

Cancer Risk from DPM

DPM Concentration at boundary of closest receptor	0.00552	ug/m3	from Aermod dispersion model
Cancer Potency Factor (CPF)	1.1	(mg/kg/day)^-1	
Daily Breathing Rate *DBR)	230	(l/kg of body weight-day)	
Exposure Duration (ED)	1.14	years	(total construction time in 2024 and 2025)
Exposure Frequency (EF)	262	days	(construction days/year)
Age Sensitivity Factor (ASF)	1		

Adult 2015 OEHHA Cancer Risk = DPM Concentration x CPF x DBR x ED x EF x ASF / 25550

CR 0.016325814 in one million

Chronic Non-cancer Hazard Index from DPM

Reference Exposure Level (REL) for DPM: 5 ug/m3

Chronic Non-cancer HI = Annual DPM/REL = 0.001104

Oak Hill Apartments Construction Assumptions

CalEEMod output file: Oak Hill Apartments

On-Site Construction

Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
Site Preparation	Site Preparation	7/1/2023	9/1/2023	5	45
Grading	Grading	9/2/2023	10/2/2023	5	21
Building Construction	Building Construction	10/3/2023	1/3/2025	5	329
Paving	Paving	1/4/2025	3/4/2025	5	42
Architectural Coating	Architectural Coating	1/4/2025	8/4/2025	5	151
				Total Workdays	**546**

Off-Road Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8	367	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37
Grading	Excavators	1	8	36	0.38
Grading	Graders	1	8	148	0.41
Grading	Rubber Tired Dozers	1	8	367	0.4
Grading	Tractors/Loaders/Backhoes	3	8	84	0.37
Building Construction	Cranes	1	7	367	0.29
Building Construction	Forklifts	3	8	82	0.2
Building Construction	Generator Sets	1	8	14	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37
Building Construction	Welders	1	8	46	0.45
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

Trips and VMT

Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Site Preparation	17.5	0	0.96	11.7	8.4	20
Grading	15	0	29.8	11.7	8.4	260
Building Construction	238	49.2	0	11.7	8.4	20
Paving	15	0	0	11.7	8.4	20
Architectural Coating	47.5	0	0	11.7	8.4	20

Oak Hill Apartments Energy Use Summary

Summary of Energy Use During Construction		(Annually)
Construction vehicle fuel	61,313	gallons (gasoline, diesel)
Construction equipment fuel	49,844	gallons (diesel)
Total construction fuel	111,157	gallons (gasoline, diesel)
Construction office electricity	14,366	kilowatt hours

Summary of Energy Use During Operations		(Annually)
Operation vehicle fuel	122,616	gallons (gasoline, diesel)
Operation natural gas	2,807,773	kilo-British Thermal Units
Operation electricity	1,303,927	kilowatt hours

Construction Vehicle Fuel Calculations

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/. Accessed September 13, 2022.

VMT = Vehicle Miles Traveled
FE = Fuel Economy

EMFAC2021 Emissions Inventory
Region Type: County
Region: Marin
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gallons/day)	Fuel_Consumption (gallons/day)	Calculations: Total Fuel Consumption	Total VMT	MPG	Vehicle Class
Marin	2023	HHDT	Aggregated	Aggregated	GAS	1.1237944	42.59677633	22.48488	0.011935066	11.9350662	14779.14901	82247.218	5.57	HHDT
Marin	2023	HHDT	Aggregated	Aggregated	DSL	793.39371	82204.62087	10073.05	14.76721394	14767.2139				
Marin	2023	LDA	Aggregated	Aggregated	GAS	106171.68	3630270.083	3630270	122.989669	122989.669	123595.0268	3655861.6	29.58	LDA
Marin	2023	LDA	Aggregated	Aggregated	DSL	904.25293	25591.4748	25591.47	0.605357858	605.357858				
Marin	2023	LDT1	Aggregated	Aggregated	GAS	12629.895	385498.8687	385498.9	15.62116488	15621.1649	15624.15582	385571.45	24.68	LDT1
Marin	2023	LDT1	Aggregated	Aggregated	DSL	7.8312034	72.58392585	72.58393	0.002990938	2.99093815				
Marin	2023	LDT2	Aggregated	Aggregated	GAS	59510.215	2156885.806	2156886	90.31553209	90315.5321	90821.34566	2172504.4	23.92	LDT2
Marin	2023	LDT2	Aggregated	Aggregated	DSL	428.85907	15618.56051	15618.56	0.505813573	505.813573				
Marin	2023	LHDT1	Aggregated	Aggregated	GAS	4146.6272	155926.7048	155926.7	16.50474782	16504.7478	22707.73506	254161.81	11.19	LHDT1
Marin	2023	LHDT1	Aggregated	Aggregated	DSL	2578.2536	98235.11017	98235.11	6.202987233	6202.98723				
Marin	2023	LHDT2	Aggregated	Aggregated	GAS	522.20056	19196.23576	19196.24	2.291294555	2291.29455	5145.940479	56647.412	11.01	LHDT2
Marin	2023	LHDT2	Aggregated	Aggregated	DSL	918.22509	37451.17665	37451.18	2.854645924	2854.64592				
Marin	2023	MHDT	Aggregated	Aggregated	GAS	386.97496	19377.60254	19377.6	4.165586709	4165.58671	11395.07799	79861.435	7.01	MHDT
Marin	2023	MHDT	Aggregated	Aggregated	DSL	1451.662	60483.83216	60483.83	7.22949128	7229.49128				

Worker	**25.71**
Vendor	**6.29**
Haul	**5.57**

*Per CalEEMod User's guide Appendix C (April 2022), CalEEMod assumes worker trips are made by a fleet consisting of 25% LDA, 50% LDT1, & 25% LDT2.
*Per CalEEMod User's guide Appendix C (April 2022), CalEEMod assumes vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT).
*Per CalEEMod User's guide Appendix C (April 2022), CalEEMod assumes hauling trips are made by a fleet consisting 100% HHDT.

Oak Hill Apartments Construction Assumptions

On-site Construction

Source: AQ/GHG Appendix, CalEEMod Output
Oak Hill Apartments

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Site Preparation	Site Preparation	7/1/2023	9/1/2023	5	45
	Grading	Grading	9/2/2023	10/2/2023	5	21
	Building Construction	Building Construction	10/3/2023	1/3/2025	5	329
	Paving	Paving	1/4/2025	3/4/2025	5	42
	Architectural Coating	Architectural Coating	1/4/2025	8/4/2025	5	151

Trips and VMT	Phase Name	Trips per Day: Worker Trip Number	Total Trips: Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Vendor Vel	Num Days	Trips per Phase: Worker Trip Number	Vendor Trip Number	Hauling Trip Number	VMT per Phase: Worker Trips	Vendor Trips	Hauling Trips	Fuel Consumption (gallons): Worker Trips	Vendor Trips	Hauling Trips
	Site Preparation	17.5	0	0.96	11.7	8.4	20	HDT_Mix	45	788	0	1	9,214	0	19	358.32	0.00	0.17
	Grading	15	0	29.8	11.7	8.4	260	HDT_Mix	21	315	0	30	3,686	0	7,748	143.33	0.00	5.35
	Building Construction	238	49.2	0	11.7	8.4	20	HDT_Mix	329	78,302	16,187	0	916,133	135,969	0	35,627.87	21,627.89	0.00
	Paving	15	0	0	11.7	8.4	20		42	630	0	0	7,371	0	0	286.65	0.00	0.00
	Architectural Coating	47.5	0	0	11.7	8.4	20	HDT_Mix	151	7,173	0	0	83,918	0	0	3,263.53	0.00	0.00

On-site Total Construction VMT (miles)
1,164,058

On-Site Total Fuel Consumption (gallons)
61,313

Construction Equipment Fuel Calculation

On-site

Source: AQ/GHG Appendix, CalEEMod Output

Oak Hills Apartments

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Site Preparation	Site Preparation	7/1/2023	9/1/2023	5	45
	Grading	Grading	9/2/2023	10/2/2023	5	21
	Building Construction	Building Construction	10/3/2023	1/3/2025	5	329
	Paving	Paving	1/4/2025	3/4/2025	5	42
	Architectural Coating	Architectural Coating	1/4/2025	8/4/2025	5	151

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Diesel Fuel Usage
	Site Preparation	Rubber Tired Dozers	3	8	367	0.4	45	158,544.00	7,927.20
	Site Preparation	Tractors/Loaders/Backhoes	4	8	84	0.37	45	44,755.20	2,237.76
	Grading	Excavators	1	8	36	0.38	21	2,298.24	114.91
	Grading	Graders	1	8	148	0.41	21	10,194.24	509.71
	Grading	Rubber Tired Dozers	1	8	367	0.4	21	24,662.40	1,233.12
	Grading	Tractors/Loaders/Backhoes	3	8	84	0.37	21	15,664.32	783.22
	Building Construction	Cranes	1	7	367	0.29	329	245,108.29	12,255.41
	Building Construction	Forklifts	3	8	82	0.2	329	129,494.40	6,474.72
	Building Construction	Generator Sets	1	8	14	0.74	329	27,267.52	1,363.38
	Building Construction	Tractors/Loaders/Backhoes	3	7	84	0.37	329	214,731.72	10,736.59
	Building Construction	Welders	1	8	46	0.45	329	54,482.40	2,724.12
	Paving	Pavers	2	8	81	0.42	42	22,861.44	1,143.07
	Paving	Paving Equipment	2	8	89	0.36	42	21,530.88	1,076.54
	Paving	Rollers	2	8	36	0.38	42	9,192.96	459.65
	Architectural Coating	Air Compressors	1	6	37	0.48	151	16,090.56	804.53
							Construction Equipment Fuel Consumption		**49,843.93 gallons**

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

South Coast Air Quality Management District. 1993. Air Quality Handbook, Table A9-3E.

Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook. Accessed October 30, 2020.

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer

Typical Construction Trailer - San Bernardino-Mojave Desert County, Annual

Date: 11/23/2020 4:47 PM

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	6854.4	1.6603	0.0000	0.0000	1.6603
Total		**1.6603**	**0.0000**	**0.0000**	**1.6603**

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual	6,854	kWh/yr
Total Over Construction	**14,366**	**kWh**

Total Construction Schedule	
Start	7/1/2023
End	8/4/2025
Total Calendar Days	765
Years	2.10

Proposed Operation Fuel Calculation

California Air Resource Board (ARB). EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/. Accessed September 13, 2022.

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: County
Region: Marin
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

Given									*Calculations*	
Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Fuel Consumption	FE	VMT*FE
Marin	2025	HHDT	Aggregated	Aggregated	GAS	0.80261818	37.8183252	0.009883586	3.826377	144.7071694
Marin	2025	HHDT	Aggregated	Aggregated	DSL	825.74668	82974.26	14.46637755	5.735663	475912.356
Marin	2025	LDA	Aggregated	Aggregated	GAS	104088.208	3556402.69	115.4368679	30.80821	109566383.3
Marin	2025	LDA	Aggregated	Aggregated	DSL	759.66447	20381.9024	0.47675285	42.75151	871357.0262
Marin	2025	LDT1	Aggregated	Aggregated	GAS	11800.5737	357457.464	14.01770888	25.50042	9115315.469
Marin	2025	LDT1	Aggregated	Aggregated	DSL	6.39636369	54.8487894	0.002257114	24.3004	1332.847787
Marin	2025	LDT2	Aggregated	Aggregated	GAS	60808.2329	2175764.21	87.22038321	24.94559	54275729.37
Marin	2025	LDT2	Aggregated	Aggregated	DSL	418.794123	14565.7064	0.461135714	31.58659	460081.0488
Marin	2025	LHDT1	Aggregated	Aggregated	GAS	4111.66173	155882.16	15.90219568	9.802556	1528043.574
Marin	2025	LHDT1	Aggregated	Aggregated	DSL	2597.2801	98913.0824	6.188835289	15.9825	1580878.698
Marin	2025	LHDT2	Aggregated	Aggregated	GAS	516.528397	19011.8665	2.194404976	8.663791	164714.8415
Marin	2025	LHDT2	Aggregated	Aggregated	DSL	978.840528	39333.9712	2.944025098	13.36061	525525.8497
Marin	2025	MCY	Aggregated	Aggregated	GAS	6364.17117	35837.1113	0.867912041	41.29118	1479756.573
Marin	2025	MDV	Aggregated	Aggregated	GAS	30685.2725	1062426.05	51.51307348	20.6244	21911896.24
Marin	2025	MDV	Aggregated	Aggregated	DSL	827.268447	28013.2071	1.1561429	24.22988	678756.7297
Marin	2025	MH	Aggregated	Aggregated	GAS	423.560128	4071.94576	0.921594035	4.418373	17991.37324
Marin	2025	MH	Aggregated	Aggregated	DSL	254.266409	2529.4973	0.26966317	9.38021	23727.2171
Marin	2025	MHDT	Aggregated	Aggregated	GAS	365.796223	18531.0718	3.890528946	4.763124	88265.79242
Marin	2025	MHDT	Aggregated	Aggregated	DSL	1486.19356	60829.3601	7.207314866	8.439948	513396.6142
Marin	2025	OBUS	Aggregated	Aggregated	GAS	119.87094	5838.29795	1.206889573	4.837475	28242.61945
Marin	2025	OBUS	Aggregated	Aggregated	DSL	43.5779744	3145.11296	0.45811242	6.865374	21592.37579
Marin	2025	SBUS	Aggregated	Aggregated	GAS	42.453326	2244.18765	0.22317147	10.05589	22567.30312
Marin	2025	SBUS	Aggregated	Aggregated	DSL	105.733913	2300.58258	0.285181598	8.067079	18558.98224
Marin	2025	UBUS	Aggregated	Aggregated	GAS	54.4359187	5689.01051	0.933345128	6.095291	34676.17664
Marin	2025	UBUS	Aggregated	Aggregated	DSL	48.65902	5978.19943	0.609845394	9.802811	58603.16204

	Vehicles	
Sum of VMT*FE	**203463450.3**	
Total VMT	**7758213.627**	
Weighted Average FE	**26.22555398**	**miles/gallon**

Total VMT

Source: AQ/GHG Appendix, CalEEMod Output
Oak Hill Apartments- 2025 Operational - BAAQMD Marin County, Annual

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid-Rise	1,374	1,374	1,374	501,364	8,810	8,810	8,810	3,215,679
Enclosed Parking w/ Elevato	0	0	0	0	0	0	0	0
Other Asphalt Surfaces	0	0	0	0	0	0	0	0

	Annual VMT (miles)	Fuel Consumption	
Total VMT	3,215,679	**122,616**	**gallons per year**

Operation Natural Gas Use

Source: AQ/GHG Appendix, CalEEMod Output

Oak Hill Apartments- 2025 Operational - BAAQMD Marin County, Annual

kBTU/yr = kilo-British Thermal Units/year

CF = cubic feet

	Natural Gas Use
Apartments Mid Rise	2,807,773
Enclosed Parking With Elevator	0
Other Asphalt Surfaces	0
Total	**2,807,773 kBTU/yr**

Operation Electricity Use

Source: AQ/GHG Appendix, CalEEMod Output

Oak Hill Apartments- 2025 Operational - BAAQMD Marin County, Annual

Project Electricity Use

kWh/yr = kilowatt hours per year

Land Use	Electricity Use (kWh/yr)
Apartments Mid Rise	798,201
Enclosed Parking With Elevator	505,726
Other Asphalt Surfaces	0
Total	**1,303,927 kWh/yr**

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