

Appendix A: Air Quality Modeling Memo

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

1 Willowbrook Court, Suite 120
Petaluma, California 94954

Tel: 707-794-0400
www.illingworthrodkin.com

Fax: 707-794-0405
illro@illingworthrodkin.com

M E M O

Date: August 16, 2018

To: **Kristy Weis**
kweis@davidjpowers.com

From: James A. Reyff
Illingworth & Rodkin, Inc.
1 Willowbrook Court, Suite 120
Petaluma, CA 94954

RE: **Vallco Special Area Specific Plan – Cupertino, CA**

SUBJECT: **Program Operational Alternative Air Quality Modeling** Job#18-004

This memo addresses additional air quality and greenhouse gas GHG emissions modeling associated with the Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment, dated May 21, 2018. That air quality analysis used the California Emissions Estimator Model, CalEEMod (Version 2016.3.2) to predict construction and operational period emissions of criteria air pollutants (and their precursors) and GHG. This memo addresses the air pollutant and GHG modeling for a new project alternative = Program Alternative.

A “Program” Alternative was evaluated. The additional modeling assumed the following land uses (as entered into the CalEEMod model):

- 460,000 sf entered as “Regional Shopping Center;”
- 2,923 dwelling units entered as “Apartments Mid Rise;”
- 1,750,000 sf entered as “General Office Building;”
- 339 rooms entered as “Hotel;”
- Transit hub entered as “User Defined Parking;”
- 38 acres entered as “City Park”/Green Roof,
- 10,000 sf entered as “Government (Civic Center),”
- 25,000 sf entered as “Junior College (2 Yr),”
- 11,391 spaces entered as “Enclosed Parking with Elevator.”

Construction

Average daily construction exhaust emissions were predicted using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Inputs to the model included the proposed land uses, construction start year, total 10-year expected duration (this was increased over CalEEMod's default 6-year schedule), 2,100,000 cubic yard (cy) of soil export, and 2,170,350 square feet (sf) of demolition. The model predicts emissions of ozone precursor pollutants (i.e., ROG and NO_x) and particulate matter (i.e., PM₁₀ and PM_{2.5}). The model also computes emissions of CO₂. The project schedule assumes that the project would be built out over a period of approximately 10 years beginning in 2019, or an estimated 2,600 construction workdays (based on an average of 260 workdays per year). Average daily emissions were computed by dividing the total construction emissions by the number of construction days. The effect of Mitigation Measures AQ-1 and AQ-2 were applied to the modeling results. Table 1 shows average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. Table 1 also shows the emissions with implementation of Mitigation Measures AQ-1 and AQ-2 (see May 2018 assessment). Emissions of NO_x during construction would be considered significant.

TABLE 1 Construction Period Emissions

Scenario	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
Program Alternative Construction Emissions (tons)	58.43 tons	215.58 tons	1.79 tons	1.67 tons
Average daily emissions (pounds) ¹	44.9 lbs.	165.8 lbs.	1.4 lbs.	1.3 lbs.
BAAQMD Thresholds (pounds per day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Exceed Threshold?	No	Yes	No	No
1 Based on an average of 2,600 construction days.				

Operational Emissions

Long-term area and mobile source emissions from operation and use of subsequent development under this alternative were modeled using CalEEMod. Implementation of the Plan could include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, heating boilers or back up diesel-powered generators. The permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less-than-significant impact.

The forecasted project trip generation rates, which include adjustments for a mix of uses, were input to the model. These were assumed to represent weekday conditions, so the rates for Saturdays and Sundays were computed based on the proportional adjustments using default rates in CalEEMod. The default trip lengths and trip types specified by CalEEMod were used but results were post-processed to reflect vehicle miles travelled (VMT) forecasted in the traffic report. The project traffic report contains an estimate of VMT, whereas the CalEEMod model provides only an estimate of annual VMT. The daily weekday VMT was computed from CalEEMod using relative difference between daily weekday and weekend trip rates and the number of weekdays per year. The average weekday rate using CalEEMod is 280,792 miles. The daily VMT reported in the traffic study is 416,531 miles. To be conservative, CalEEMod mobile emissions were adjusted by a factor of 1.48 to account for this discrepancy between the CalEEMod VMT and the project traffic report estimated VMT.

Modeled operational period emissions in tons per year and pounds per day are summarized in Table 2. Note that similar to the May 2018 assessment for the proposed project, emissions of ROG, NO_x and PM₁₀ would be significant. In addition, emissions of PM_{2.5} would be significant under this alternative.

TABLE 2 2029 Operational Air Pollutant Emissions – Program Alternative

Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
Existing Operational Emissions (tons)	2.65 tons	5.29 tons	5.82 tons	1.58 tons
Unmitigated Project				
Proposed Project – non-mobile (tons)	27.09 tons	4.08 tons	0.42 tons	0.42 tons
Proposed Project –mobile (tons)	9.99 tons	41.98 tons	52.46 tons	14.25 tons
Net Proposed Project (tons)	34.43 tons	40.77 tons	47.06 tons	13.09 tons
<i>BAAQMD Thresholds (tons per year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
Exceed Threshold?	Yes	Yes	Yes	Yes
Net Proposed Project (pounds per day)	188.6	223.4 lbs.	257.8 lbs.	71.7 lbs.
<i>BAAQMD Thresholds (pounds per day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
Exceed Threshold?	Yes	Yes	Yes	Yes

GHG Emissions

GHG emissions were computed for this alternative using the CalEEMod model, as described under Impact 2. Emissions rates in CalEEMod associated with electricity consumption were adjusted to account for the proposed use of Silicon Valley Clean Energy’s 100 percent carbon-free electricity. Default model assumptions for GHG emissions associated with area sources, solid waste generation and water/wastewater use were applied. The model includes the 2016 Title 24 Building Standards, so, default rates for energy consumption were assumed in the model. CalEEMod predicts emissions of GHG in the form of equivalent carbon dioxide emissions or CO₂e in metric tons per year.

GHG emissions are expressed in terms of emissions per service population, where service population is the estimated number of new residents and employees. The estimated 2029 service population for the Program Alternative is 14,024, based on 5,846 new residents and 8,178 new workers.

The DEIR used a 2030 project-level GHG emission efficiency metric of 2.6 MT of CO₂e per service population (S.P.) per year was developed as a significance threshold. GHG emissions resulting from operation of the Program Alternative were compared to this threshold.

Table 3 shows the construction emissions, total and average annual, and the year 2029 annual operational emissions. GHG emissions are expressed in terms of annual metric tons of equivalent CO₂ (or CO₂e) emissions (MT of CO₂e/yr) and per service population emissions.

TABLE 4 2029 GHG Emissions (MT of CO₂e)

Source Category	Existing	Program Alternative
Construction - total		90,215
Construction -average annual		9,022

Area	<1	37
Energy Consumption	38	4,164
Mobile	4,803	42,556
Solid Waste Generation	157	1,878
Water Usage	30	596
Total	5,028	49,231
Efficiency Metric		3.51
<i>2030 Substantial Progress Threshold</i>		2.6

Attachments: 1. Construction and Operational CalEEMod Output

Vallco, Cupertino - Program (8/10/2018) - Santa Clara County, Annual

Vallco, Cupertino - Program (8/10/2018)
Santa Clara County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,750.00	1000sqft	58.00	1,750,000.00	0
Government (Civic Center)	10.00	1000sqft	0.00	10,000.00	0
	0.00		0.00	0.00	0
Junior College (2Yr)	25.00	1000sqft	0.00	25,000.00	0
Enclosed Parking with Elevator	11,391.00	Space	0.00	4,556,400.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
City Park	38.00	Acre	0.00	1,655,280.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	2,923.00	Dwelling Unit	0.00	2,923,000.00	8360
Regional Shopping Center	460.00	1000sqft	0.00	460,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition - 2,170,350 sf demo

Grading - 2,100,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC paint, no hearth

Energy Mitigation - energy efficient appliances

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	55
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	55
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	438.45	935.00
tblFireplaces	NumberWood	496.91	0.00
tblGrading	MaterialExported	0.00	2,100,000.00
tblLandUse	LotAcreage	40.17	58.00

tblLandUse	LotAcreage	0.23	0.00
tblLandUse	LotAcreage	0.57	0.00
tblLandUse	LotAcreage	102.52	0.00
tblLandUse	LotAcreage	38.00	0.00
tblLandUse	LotAcreage	11.30	0.00
tblLandUse	LotAcreage	76.92	0.00
tblLandUse	LotAcreage	10.56	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.18
tblVehicleTrips	ST_TR	22.75	182.00
tblVehicleTrips	ST_TR	2.46	2.20
tblVehicleTrips	ST_TR	8.19	6.71
tblVehicleTrips	ST_TR	11.23	12.46
tblVehicleTrips	ST_TR	49.97	34.18
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	SU_TR	5.86	3.83
tblVehicleTrips	SU_TR	16.74	134.00
tblVehicleTrips	SU_TR	1.05	0.94
tblVehicleTrips	SU_TR	5.95	4.87
tblVehicleTrips	SU_TR	1.21	1.34
tblVehicleTrips	SU_TR	25.24	17.26
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	WD_TR	6.65	4.35

tblVehicleTrips	WD_TR	1.89	15.12
tblVehicleTrips	WD_TR	11.03	9.88
tblVehicleTrips	WD_TR	27.92	18.08
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	27.49	30.51
tblVehicleTrips	WD_TR	42.70	29.20
tblVehicleTrips	WD_TR	0.00	808.00
tblWoodstoves	WoodstoveWoodMass	582.40	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.9233	18.9908	5.8946	0.0402	4.2225	0.3247	4.5472	1.1765	0.3018	1.4783	0.0000	3,847.3161	3,847.3161	0.3077	0.0000	3,855.0097
2020	2.9202	45.8780	21.7182	0.1397	6.5743	0.3882	6.9625	1.8292	0.3643	2.1936	0.0000	13,253.9831	13,253.9831	0.6805	0.0000	13,270.9943
2021	3.2730	27.7017	25.3535	0.1197	7.3659	0.2147	7.5806	1.9944	0.2020	2.1964	0.0000	11,149.0360	11,149.0360	0.4449	0.0000	11,160.1587
2022	3.0340	25.8983	23.5041	0.1166	7.3377	0.1868	7.5245	1.9868	0.1757	2.1625	0.0000	10,874.2370	10,874.2370	0.4196	0.0000	10,884.7281
2023	2.7090	20.1575	21.6495	0.1129	7.3378	0.1459	7.4838	1.9868	0.1369	2.1237	0.0000	10,529.4085	10,529.4085	0.3719	0.0000	10,538.7071
2024	2.5827	19.8504	20.5805	0.1113	7.3944	0.1348	7.5292	2.0021	0.1264	2.1285	0.0000	10,394.9480	10,394.9480	0.3613	0.0000	10,403.9791
2025	2.4441	19.3183	19.3847	0.1086	7.3662	0.1223	7.4885	1.9945	0.1146	2.1091	0.0000	10,143.9863	10,143.9863	0.3478	0.0000	10,152.6816
2026	2.3466	19.0106	18.4682	0.1065	7.3663	0.1210	7.4873	1.9945	0.1135	2.1080	0.0000	9,957.2099	9,957.2099	0.3378	0.0000	9,965.6550
2027	2.1801	18.1020	17.1153	0.1011	7.1129	0.1168	7.2297	1.9259	0.1095	2.0354	0.0000	9,461.5670	9,461.5670	0.3202	0.0000	9,469.5724

2028	36.0182	0.6750	2.0128	5.7200e-003	0.5887	0.0316	0.6203	0.1566	0.0294	0.1859	0.0000	513.0485	513.0485	0.0456	0.0000	514.1893
Maximum	36.0182	45.8780	25.3535	0.1397	7.3944	0.3882	7.5806	2.0021	0.3643	2.1964	0.0000	13,253.9831	13,253.9831	0.6805	0.0000	13,270.9943

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.9233	18.9908	5.8946	0.0402	2.4459	0.3247	2.7706	0.6489	0.3018	0.9507	0.0000	3,847.3155	3,847.3155	0.3077	0.0000	3,855.0091
2020	2.9202	45.8780	21.7182	0.1397	5.9943	0.3882	6.3825	1.6296	0.3643	1.9940	0.0000	13,253.9825	13,253.9825	0.6805	0.0000	13,270.9937
2021	3.2730	27.7017	25.3535	0.1197	7.3659	0.2147	7.5806	1.9944	0.2020	2.1964	0.0000	11,149.0356	11,149.0356	0.4449	0.0000	11,160.1584
2022	3.0340	25.8983	23.5041	0.1166	7.3377	0.1868	7.5245	1.9868	0.1757	2.1625	0.0000	10,874.2366	10,874.2366	0.4196	0.0000	10,884.7277
2023	2.7090	20.1575	21.6495	0.1129	7.3378	0.1459	7.4838	1.9868	0.1369	2.1237	0.0000	10,529.4082	10,529.4082	0.3719	0.0000	10,538.7067
2024	2.5827	19.8504	20.5805	0.1113	7.3944	0.1348	7.5292	2.0021	0.1264	2.1285	0.0000	10,394.9476	10,394.9476	0.3613	0.0000	10,403.9787
2025	2.4441	19.3183	19.3847	0.1086	7.3662	0.1223	7.4885	1.9945	0.1146	2.1091	0.0000	10,143.9859	10,143.9859	0.3478	0.0000	10,152.6812
2026	2.3466	19.0106	18.4682	0.1065	7.3663	0.1210	7.4873	1.9945	0.1135	2.1080	0.0000	9,957.2095	9,957.2095	0.3378	0.0000	9,965.6546
2027	2.1801	18.1020	17.1153	0.1011	7.1129	0.1168	7.2297	1.9259	0.1095	2.0354	0.0000	9,461.5667	9,461.5667	0.3202	0.0000	9,469.5720
2028	36.0182	0.6750	2.0128	5.7200e-003	0.5887	0.0316	0.6203	0.1566	0.0294	0.1859	0.0000	513.0484	513.0484	0.0456	0.0000	514.1892
Maximum	36.0182	45.8780	25.3535	0.1397	7.3944	0.3882	7.5806	2.0021	0.3643	2.1964	0.0000	13,253.9825	13,253.9825	0.6805	0.0000	13,270.9937

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	3.76	0.00	3.66	4.27	0.00	3.88	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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1	1-1-2019	3-31-2019	2.0521	2.0521
2	4-1-2019	6-30-2019	2.0549	2.0549
3	7-1-2019	9-30-2019	1.6482	1.6482
4	10-1-2019	12-31-2019	14.3296	14.3296
5	1-1-2020	3-31-2020	15.8304	15.8304
6	4-1-2020	6-30-2020	15.4167	15.4167
7	7-1-2020	9-30-2020	8.5403	8.5403
8	10-1-2020	12-31-2020	8.7568	8.7568
9	1-1-2021	3-31-2021	7.7241	7.7241
10	4-1-2021	6-30-2021	7.6305	7.6305
11	7-1-2021	9-30-2021	7.7143	7.7143
12	10-1-2021	12-31-2021	7.8957	7.8957
13	1-1-2022	3-31-2022	7.2396	7.2396
14	4-1-2022	6-30-2022	7.1590	7.1590
15	7-1-2022	9-30-2022	7.2377	7.2377
16	10-1-2022	12-31-2022	7.4004	7.4004
17	1-1-2023	3-31-2023	5.7338	5.7338
18	4-1-2023	6-30-2023	5.6684	5.6684
19	7-1-2023	9-30-2023	5.7307	5.7307
20	10-1-2023	12-31-2023	5.8613	5.8613
21	1-1-2024	3-31-2024	5.6411	5.6411
22	4-1-2024	6-30-2024	5.5194	5.5194
23	7-1-2024	9-30-2024	5.5801	5.5801
24	10-1-2024	12-31-2024	5.7031	5.7031
25	1-1-2025	3-31-2025	5.4305	5.4305
26	4-1-2025	6-30-2025	5.3759	5.3759
27	7-1-2025	9-30-2025	5.4349	5.4349
28	10-1-2025	12-31-2025	5.5511	5.5511
29	1-1-2026	3-31-2026	5.3269	5.3269
30	4-1-2026	6-30-2026	5.2768	5.2768

31	7-1-2026	9-30-2026	5.3347	5.3347
32	10-1-2026	12-31-2026	5.4453	5.4453
33	1-1-2027	3-31-2027	5.2259	5.2259
34	4-1-2027	6-30-2027	5.1802	5.1802
35	7-1-2027	9-30-2027	5.2371	5.2371
36	10-1-2027	12-31-2027	4.7408	4.7408
37	1-1-2028	3-31-2028	0.3104	0.3104
38	4-1-2028	6-30-2028	2.4553	2.4553
39	7-1-2028	9-30-2028	18.2546	18.2546
		Highest	18.2546	18.2546

2.2 Overall Operational
 Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	26.6707	0.3517	21.8544	1.8000e-003		0.1289	0.1289		0.1289	0.1289	0.0000	152.4276	152.4276	0.0368	2.1400e-003	153.9863
Energy	0.4183	3.7281	2.6493	0.0228		0.2890	0.2890		0.2890	0.2890	0.0000	4,139.3444	4,139.3444	0.0793	0.0759	4,163.9425
Mobile	6.7481	28.3682	75.2038	0.3123	35.2238	0.2203	35.4440	9.4266	0.2047	9.6313	0.0000	28,732.9543	28,732.9543	0.8462	0.0000	28,754.1098
Waste						0.0000	0.0000		0.0000	0.0000	757.8566	0.0000	757.8566	44.7880	0.0000	1,877.5577
Water						0.0000	0.0000		0.0000	0.0000	173.6536	0.0000	173.6536	17.8359	0.4211	745.0518
Total	33.8371	32.4481	99.7075	0.3369	35.2238	0.6382	35.8619	9.4266	0.6226	10.0492	931.5102	33,024.7263	33,956.2365	63.5863	0.4992	35,694.6480

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	26.6589	0.2509	21.8115	1.1600e-003		0.1208	0.1208		0.1208	0.1208	0.0000	35.7029	35.7029	0.0346	0.0000	36.5679
Energy	0.4183	3.7281	2.6493	0.0228		0.2890	0.2890		0.2890	0.2890	0.0000	4,139.3444	4,139.3444	0.0793	0.0759	4,163.9425
Mobile	6.7481	28.3682	75.2038	0.3123	35.2238	0.2203	35.4440	9.4266	0.2047	9.6313	0.0000	28,732.9543	28,732.9543	0.8462	0.0000	28,754.1098
Waste						0.0000	0.0000		0.0000	0.0000	757.8566	0.0000	757.8566	44.7880	0.0000	1,877.5577
Water						0.0000	0.0000		0.0000	0.0000	138.9229	0.0000	138.9229	14.2687	0.3369	596.0414
Total	33.8253	32.3473	99.6646	0.3363	35.2238	0.6300	35.8538	9.4266	0.6145	10.0411	896.7795	32,908.0016	33,804.7811	60.0169	0.4128	35,428.2193

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.03	0.31	0.04	0.19	0.00	1.28	0.02	0.00	1.31	0.08	3.73	0.35	0.45	5.61	17.30	0.75

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 5,919,075; Residential Outdoor: 1,973,025; Non-Residential Indoor: 4,105,842; Non-Residential Outdoor: 1,368,614;

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	9,872.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	262,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,641.00	1,779.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1,128.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	0.2284	2.3259	1.4339	2.5200e-003	1.0682	0.1167	1.1849	0.1617	0.1085	0.2703	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	0.0484	1.5395	0.3308	4.0100e-003	0.0914	5.9500e-003	0.0973	0.0251	5.6900e-003	0.0308	0.0000	387.2356	387.2356	0.0180	0.0000	387.6859

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	0.2284	2.3259	1.4339	2.5200e-003	0.2403	0.1167	0.3570	0.0364	0.1085	0.1449	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	0.0484	1.5395	0.3308	4.0100e-003	0.0914	5.9500e-003	0.0973	0.0251	5.6900e-003	0.0308	0.0000	387.2356	387.2356	0.0180	0.0000	387.6859

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	0.1691	1.7773	0.8605	1.4800e-003	0.7046	0.0932	0.7978	0.3873	0.0858	0.4731	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Fugitive Dust					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	0.1691	1.7773	0.8605	1.4800e-003	0.1585	0.0932	0.2518	0.0871	0.0858	0.1729	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5196	0.0000	0.5196	0.1318	0.0000	0.1318	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760

Total	0.1256	1.4448	0.8845	1.6400e-003	0.5196	0.0631	0.5827	0.1318	0.0581	0.1898	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.3474	11.9001	2.3505	0.0305	1.8289	0.0457	1.8746	0.4680	0.0437	0.5117	0.0000	2,945.4933	2,945.4933	0.1380	0.0000	2,948.9439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	0.3493	11.9015	2.3654	0.0305	1.8331	0.0457	1.8788	0.4692	0.0437	0.5129	0.0000	2,949.2144	2,949.2144	0.1381	0.0000	2,952.6674

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1169	0.0000	0.1169	0.0296	0.0000	0.0296	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
Total	0.1256	1.4448	0.8845	1.6400e-003	0.1169	0.0631	0.1801	0.0296	0.0581	0.0877	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.3474	11.9001	2.3505	0.0305	1.8289	0.0457	1.8746	0.4680	0.0437	0.5117	0.0000	2,945.4933	2,945.4933	0.1380	0.0000	2,948.9439
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	0.3493	11.9015	2.3654	0.0305	1.8331	0.0457	1.8788	0.4692	0.0437	0.5129	0.0000	2,949.2144	2,949.2144	0.1381	0.0000	2,952.6674

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7484	0.0000	0.7484	0.2575	0.0000	0.2575	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	0.2870	3.2377	2.0613	4.0000e-003	0.7484	0.1402	0.8887	0.2575	0.1290	0.3865	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.7731	26.9955	5.5285	0.0733	2.0622	0.0877	2.1499	0.5527	0.0839	0.6366	0.0000	7,095.3843	7,095.3843	0.3246	0.0000	7,103.4987
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	0.7773	26.9986	5.5608	0.0734	2.0724	0.0878	2.1602	0.5554	0.0840	0.6394	0.0000	7,104.1582	7,104.1582	0.3248	0.0000	7,112.2780

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1684	0.0000	0.1684	0.0580	0.0000	0.0580	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	0.2870	3.2377	2.0613	4.0000e-003	0.1684	0.1402	0.3086	0.0580	0.1290	0.1870	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.7731	26.9955	5.5285	0.0733	2.0622	0.0877	2.1499	0.5527	0.0839	0.6366	0.0000	7,095.3843	7,095.3843	0.3246	0.0000	7,103.4987
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	0.7773	26.9986	5.5608	0.0734	2.0724	0.0878	2.1602	0.5554	0.0840	0.6394	0.0000	7,104.1582	7,104.1582	0.3248	0.0000	7,112.2780

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4688	13.4704	3.5876	0.0323	0.7783	0.0667	0.8450	0.2250	0.0638	0.2888	0.0000	3,092.9596	3,092.9596	0.1418	0.0000	3,096.5056
Worker	1.2461	0.8954	9.3881	0.0282	2.9752	0.0192	2.9944	0.7913	0.0177	0.8090	0.0000	2,551.4210	2,551.4210	0.0626	0.0000	2,552.9855
Total	1.7149	14.3658	12.9757	0.0605	3.7534	0.0859	3.8394	1.0163	0.0815	1.0978	0.0000	5,644.3806	5,644.3806	0.2044	0.0000	5,649.4912

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598
Total	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0205	154.0205	0.0376	0.0000	154.9598

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4688	13.4704	3.5876	0.0323	0.7783	0.0667	0.8450	0.2250	0.0638	0.2888	0.0000	3,092.9596	3,092.9596	0.1418	0.0000	3,096.5056
Worker	1.2461	0.8954	9.3881	0.0282	2.9752	0.0192	2.9944	0.7913	0.0177	0.8090	0.0000	2,551.4210	2,551.4210	0.0626	0.0000	2,552.9855
Total	1.7149	14.3658	12.9757	0.0605	3.7534	0.0859	3.8394	1.0163	0.0815	1.0978	0.0000	5,644.3806	5,644.3806	0.2044	0.0000	5,649.4912

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7572	23.8566	6.3505	0.0627	1.5273	0.0529	1.5802	0.4416	0.0506	0.4922	0.0000	6,013.6134	6,013.6134	0.2621	0.0000	6,020.1651
Worker	2.2678	1.5703	16.8399	0.0535	5.8385	0.0367	5.8753	1.5528	0.0338	1.5866	0.0000	4,833.1359	4,833.1359	0.1099	0.0000	4,835.8838
Total	3.0250	25.4269	23.1904	0.1161	7.3659	0.0896	7.4555	1.9944	0.0844	2.0788	0.0000	10,846.7493	10,846.7493	0.3720	0.0000	10,856.0489

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7572	23.8566	6.3505	0.0627	1.5273	0.0529	1.5802	0.4416	0.0506	0.4922	0.0000	6,013.6134	6,013.6134	0.2621	0.0000	6,020.1651
Worker	2.2678	1.5703	16.8399	0.0535	5.8385	0.0367	5.8753	1.5528	0.0338	1.5866	0.0000	4,833.1359	4,833.1359	0.1099	0.0000	4,835.8838
Total	3.0250	25.4269	23.1904	0.1161	7.3659	0.0896	7.4555	1.9944	0.0844	2.0788	0.0000	10,846.7493	10,846.7493	0.3720	0.0000	10,856.0489

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7038	22.4649	5.9582	0.0618	1.5216	0.0458	1.5674	0.4399	0.0438	0.4837	0.0000	5,933.2611	5,933.2611	0.2493	0.0000	5,939.4930
Worker	2.1085	1.4033	15.4187	0.0513	5.8162	0.0358	5.8519	1.5468	0.0330	1.5798	0.0000	4,639.7330	4,639.7330	0.0982	0.0000	4,642.1880
Total	2.8122	23.8682	21.3769	0.1131	7.3377	0.0816	7.4193	1.9868	0.0768	2.0635	0.0000	10,572.9942	10,572.9942	0.3475	0.0000	10,581.6810

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.7038	22.4649	5.9582	0.0618	1.5216	0.0458	1.5674	0.4399	0.0438	0.4837	0.0000	5,933.2611	5,933.2611	0.2493	0.0000	5,939.4930
Worker	2.1085	1.4033	15.4187	0.0513	5.8162	0.0358	5.8519	1.5468	0.0330	1.5798	0.0000	4,639.7330	4,639.7330	0.0982	0.0000	4,642.1880
Total	2.8122	23.8682	21.3769	0.1131	7.3377	0.0816	7.4193	1.9868	0.0768	2.0635	0.0000	10,572.9942	10,572.9942	0.3475	0.0000	10,581.6810

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5303	17.0254	5.3516	0.0600	1.5217	0.0199	1.5416	0.4400	0.0190	0.4590	0.0000	5,764.5713	5,764.5713	0.2122	0.0000	5,769.8770
Worker	1.9742	1.2621	14.1862	0.0493	5.8162	0.0351	5.8512	1.5468	0.0323	1.5791	0.0000	4,463.4911	4,463.4911	0.0880	0.0000	4,465.6918
Total	2.5045	18.2874	19.5378	0.1094	7.3378	0.0550	7.3928	1.9868	0.0513	2.0381	0.0000	10,228.0624	10,228.0624	0.3003	0.0000	10,235.5688

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5303	17.0254	5.3516	0.0600	1.5217	0.0199	1.5416	0.4400	0.0190	0.4590	0.0000	5,764.5713	5,764.5713	0.2122	0.0000	5,769.8770
Worker	1.9742	1.2621	14.1862	0.0493	5.8162	0.0351	5.8512	1.5468	0.0323	1.5791	0.0000	4,463.4911	4,463.4911	0.0880	0.0000	4,465.6918
Total	2.5045	18.2874	19.5378	0.1094	7.3378	0.0550	7.3928	1.9868	0.0513	2.0381	0.0000	10,228.0624	10,228.0624	0.3003	0.0000	10,235.5688

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5173	16.9397	5.2071	0.0601	1.5335	0.0197	1.5532	0.4434	0.0189	0.4622	0.0000	5,770.0713	5,770.0713	0.2095	0.0000	5,775.3085
Worker	1.8726	1.1495	13.2555	0.0478	5.8609	0.0347	5.8956	1.5587	0.0320	1.5907	0.0000	4,321.1543	4,321.1543	0.0799	0.0000	4,323.1527
Total	2.3899	18.0893	18.4627	0.1078	7.3944	0.0545	7.4488	2.0021	0.0508	2.0529	0.0000	10,091.2256	10,091.2256	0.2894	0.0000	10,098.4612

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5173	16.9397	5.2071	0.0601	1.5335	0.0197	1.5532	0.4434	0.0189	0.4622	0.0000	5,770.0713	5,770.0713	0.2095	0.0000	5,775.3085
Worker	1.8726	1.1495	13.2555	0.0478	5.8609	0.0347	5.8956	1.5587	0.0320	1.5907	0.0000	4,321.1543	4,321.1543	0.0799	0.0000	4,323.1527
Total	2.3899	18.0893	18.4627	0.1078	7.3944	0.0545	7.4488	2.0021	0.0508	2.0529	0.0000	10,091.2256	10,091.2256	0.2894	0.0000	10,098.4612

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5011	16.6502	5.0497	0.0594	1.5277	0.0194	1.5471	0.4417	0.0185	0.4602	0.0000	5,710.7575	5,710.7575	0.2046	0.0000	5,715.8722
Worker	1.7646	1.0409	12.2360	0.0456	5.8385	0.0341	5.8726	1.5528	0.0314	1.5842	0.0000	4,130.5739	4,130.5739	0.0721	0.0000	4,132.3759
Total	2.2657	17.6910	17.2856	0.1050	7.3662	0.0535	7.4197	1.9945	0.0499	2.0444	0.0000	9,841.3314	9,841.3314	0.2767	0.0000	9,848.2481

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5011	16.6502	5.0497	0.0594	1.5277	0.0194	1.5471	0.4417	0.0185	0.4602	0.0000	5,710.7575	5,710.7575	0.2046	0.0000	5,715.8722
Worker	1.7646	1.0409	12.2360	0.0456	5.8385	0.0341	5.8726	1.5528	0.0314	1.5842	0.0000	4,130.5739	4,130.5739	0.0721	0.0000	4,132.3759
Total	2.2657	17.6910	17.2856	0.1050	7.3662	0.0535	7.4197	1.9945	0.0499	2.0444	0.0000	9,841.3314	9,841.3314	0.2767	0.0000	9,848.2481

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4891	16.4297	4.9513	0.0590	1.5278	0.0190	1.5468	0.4418	0.0182	0.4599	0.0000	5,676.8678	5,676.8678	0.2010	0.0000	5,681.8917
Worker	1.6790	0.9537	11.4179	0.0439	5.8385	0.0332	5.8717	1.5528	0.0305	1.5833	0.0000	3,977.6872	3,977.6872	0.0657	0.0000	3,979.3298
Total	2.1682	17.3834	16.3691	0.1030	7.3663	0.0522	7.4185	1.9945	0.0487	2.0432	0.0000	9,654.5550	9,654.5550	0.2667	0.0000	9,661.2215

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4891	16.4297	4.9513	0.0590	1.5278	0.0190	1.5468	0.4418	0.0182	0.4599	0.0000	5,676.8678	5,676.8678	0.2010	0.0000	5,681.8917
Worker	1.6790	0.9537	11.4179	0.0439	5.8385	0.0332	5.8717	1.5528	0.0305	1.5833	0.0000	3,977.6872	3,977.6872	0.0657	0.0000	3,979.3298
Total	2.1682	17.3834	16.3691	0.1030	7.3663	0.0522	7.4185	1.9945	0.0487	2.0432	0.0000	9,654.5550	9,654.5550	0.2667	0.0000	9,661.2215

3.5 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358

Total	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4623	15.6463	4.7018	0.0567	1.4752	0.0180	1.4932	0.4265	0.0172	0.4437	0.0000	5,450.4706	5,450.4706	0.1907	0.0000	5,455.2374
Worker	1.5413	0.8458	10.3202	0.0410	5.6372	0.0305	5.6676	1.4992	0.0280	1.5273	0.0000	3,709.5169	3,709.5169	0.0579	0.0000	3,710.9653
Total	2.0035	16.4921	15.0220	0.0976	7.1124	0.0485	7.1608	1.9258	0.0452	1.9710	0.0000	9,159.9876	9,159.9876	0.2486	0.0000	9,166.2027

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355
Total	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2182	292.2182	0.0687	0.0000	293.9355

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.4623	15.6463	4.7018	0.0567	1.4752	0.0180	1.4932	0.4265	0.0172	0.4437	0.0000	5,450.4706	5,450.4706	0.1907	0.0000	5,455.2374
Worker	1.5413	0.8458	10.3202	0.0410	5.6372	0.0305	5.6676	1.4992	0.0280	1.5273	0.0000	3,709.5169	3,709.5169	0.0579	0.0000	3,710.9653
Total	2.0035	16.4921	15.0220	0.0976	7.1124	0.0485	7.1608	1.9258	0.0452	1.9710	0.0000	9,159.9876	9,159.9876	0.2486	0.0000	9,166.2027

3.6 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524

3.6 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905

Mitigated Construction On-Site

Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	35.8106	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1504	0.0804	1.0008	4.0900e-003	0.5815	2.9200e-003	0.5844	0.1547	2.6900e-003	0.1574	0.0000	370.7470	370.7470	5.4900e-003	0.0000	370.8842
Total	0.1504	0.0804	1.0008	4.0900e-003	0.5815	2.9200e-003	0.5844	0.1547	2.6900e-003	0.1574	0.0000	370.7470	370.7470	5.4900e-003	0.0000	370.8842

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	35.7995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188
Total	35.8106	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5961	16.5961	9.1000e-004	0.0000	16.6188

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1504	0.0804	1.0008	4.0900e-003	0.5815	2.9200e-003	0.5844	0.1547	2.6900e-003	0.1574	0.0000	370.7470	370.7470	5.4900e-003	0.0000	370.8842
Total	0.1504	0.0804	1.0008	4.0900e-003	0.5815	2.9200e-003	0.5844	0.1547	2.6900e-003	0.1574	0.0000	370.7470	370.7470	5.4900e-003	0.0000	370.8842

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.7481	28.3682	75.2038	0.3123	35.2238	0.2203	35.4440	9.4266	0.2047	9.6313	0.0000	28,732.9543	28,732.9543	0.8462	0.0000	28,754.1098
Unmitigated	6.7481	28.3682	75.2038	0.3123	35.2238	0.2203	35.4440	9.4266	0.2047	9.6313	0.0000	28,732.9543	28,732.9543	0.8462	0.0000	28,754.1098

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Apartments Mid Rise	12,715.05	12,218.14	11195.09	28,701,318	28,701,318
City Park	574.56	6,916.00	5092.00	4,538,331	4,538,331
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	17,290.00	3,850.00	1645.00	31,389,403	31,389,403
Government (Civic Center)	180.80	0.00	0.00	246,874	246,874
Hotel	2,267.91	2,274.69	1650.93	4,143,252	4,143,252
Junior College (2Yr)	762.75	311.50	33.50	1,508,757	1,508,757
Regional Shopping Center	13,432.00	15,722.80	7939.60	22,748,479	22,748,479
User Defined Parking	808.00	808.00	808.00	1,470,560	1,470,560
Total	48,031.07	42,101.13	28,364.12	94,746,975	94,746,975

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	5.00	5.00	5.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
City Park	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
General Office Building	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Government (Civic Center)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Junior College (2Yr)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

General Office Building	2.86475e+007	0.1545	1.4043	1.1796	8.4300e-003		0.1067	0.1067		0.1067	0.1067	0.0000	1,528.7397	1,528.7397	0.0293	0.0280	1,537.8242
Government (Civic Center)	163700	8.8000e-004	8.0200e-003	6.7400e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7357	8.7357	1.7000e-004	1.6000e-004	8.7876
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	603250	3.2500e-003	0.0296	0.0248	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.1917	32.1917	6.2000e-004	5.9000e-004	32.3830
Regional Shopping Center	1.0902e+006	5.8800e-003	0.0534	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.1772	58.1772	1.1200e-003	1.0700e-003	58.5229
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.4183	3.7281	2.6493	0.0228		0.2890	0.2890		0.2890	0.2890	0.0000	4,139.3444	4,139.3444	0.0794	0.0759	4,163.9425

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.52531e+007	0.1362	1.1636	0.4952	7.4300e-003		0.0941	0.0941		0.0941	0.0941	0.0000	1,347.6022	1,347.6022	0.0258	0.0247	1,355.6104
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.86475e+007	0.1545	1.4043	1.1796	8.4300e-003		0.1067	0.1067		0.1067	0.1067	0.0000	1,528.7397	1,528.7397	0.0293	0.0280	1,537.8242
Government (Civic Center)	163700	8.8000e-004	8.0200e-003	6.7400e-003	5.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	8.7357	8.7357	1.7000e-004	1.6000e-004	8.7876
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	603250	3.2500e-003	0.0296	0.0248	1.8000e-004		2.2500e-003	2.2500e-003		2.2500e-003	2.2500e-003	0.0000	32.1917	32.1917	6.2000e-004	5.9000e-004	32.3830
Regional Shopping Center	1.0902e+006	5.8800e-003	0.0534	0.0449	3.2000e-004		4.0600e-003	4.0600e-003		4.0600e-003	4.0600e-003	0.0000	58.1772	58.1772	1.1200e-003	1.0700e-003	58.5229
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.4183	3.7281	2.6493	0.0228		0.2890	0.2890		0.2890	0.2890	0.0000	4,139.3444	4,139.3444	0.0794	0.0759	4,163.9425

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20672e+007	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	3.12025e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	178300	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	197750	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	4.9174e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.17569e+007	0.0000	0.0000	0.0000	0.0000

City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	3.12025e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	178300	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	197750	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	4.9174e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	26.6589	0.2509	21.8115	1.1600e-003		0.1208	0.1208		0.1208	0.1208	0.0000	35.7029	35.7029	0.0346	0.0000	36.5679
Unmitigated	26.6707	0.3517	21.8544	1.8000e-003		0.1289	0.1289		0.1289	0.1289	0.0000	152.4276	152.4276	0.0368	2.1400e-003	153.9863

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.5800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.4161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0118	0.1008	0.0429	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7247	116.7247	2.2400e-003	2.1400e-003	117.4184
Landscaping	0.6629	0.2509	21.8115	1.1600e-003		0.1208	0.1208		0.1208	0.1208	0.0000	35.7029	35.7029	0.0346	0.0000	36.5679
Total	26.6707	0.3517	21.8544	1.8000e-003		0.1289	0.1289		0.1289	0.1289	0.0000	152.4276	152.4276	0.0368	2.1400e-003	153.9863

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.5800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	22.4161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.6629	0.2509	21.8115	1.1600e-003		0.1208	0.1208		0.1208	0.1208	0.0000	35.7029	35.7029	0.0346	0.0000	36.5679
Total	26.6589	0.2509	21.8115	1.1600e-003		0.1208	0.1208		0.1208	0.1208	0.0000	35.7029	35.7029	0.0346	0.0000	36.5679

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	138.9229	14.2687	0.3369	596.0414
Unmitigated	173.6536	17.8359	0.4211	745.0518

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	190.445 / 120.063	60.4195	6.2057	0.1465	259.2267
City Park	0 / 45.2763	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000

General Office Building	311.034 / 190.634	98.6768	10.1351	0.2393	423.3675
Government (Civic Center)	1.9866 / 1.21759	0.6303	0.0647	1.5300e-003	2.7041
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Junior College (2Yr)	1.22623 / 1.91794	0.3890	0.0400	9.4000e-004	1.6691
Regional Shopping Center	34.0734 / 20.8837	10.8099	1.1103	0.0262	46.3793
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		173.6536	17.8359	0.4212	745.0518

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	152.356 / 112.739	48.3356	4.9645	0.1172	207.3813
City Park	0 / 42.5144	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	248.827 / 179.005	78.9414	8.1080	0.1915	338.6940
Government (Civic Center)	1.58928 / 1.14332	0.5042	0.0518	1.2200e-003	2.1633
Hotel	6.87947 / 0.897197	2.1825	0.2242	5.2900e-003	9.3641
Junior College (2Yr)	0.980981 / 1.80095	0.3112	0.0320	7.5000e-004	1.3353
Regional Shopping Center	27.2587 / 19.6098	8.6479	0.8882	0.0210	37.1035
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		138.9229	14.2687	0.3369	596.0414

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	757.8566	44.7880	0.0000	1,877.5577
Unmitigated	757.8566	44.7880	0.0000	1,877.5577

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1344.58	272.9376	16.1302	0.0000	676.1913
City Park	3.27	0.6638	0.0392	0.0000	1.6445
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1627.5	330.3678	19.5242	0.0000	818.4722
Government (Civic Center)	57	11.5705	0.6838	0.0000	28.6654
Hotel	185.6	37.6751	2.2265	0.0000	93.3385

Junior College (2Yr)	32.5	6.5972	0.3899	0.0000	16.3443
Regional Shopping Center	483	98.0446	5.7943	0.0000	242.9014
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		757.8566	44.7881	0.0000	1,877.5577

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1344.58	272.9376	16.1302	0.0000	676.1913
City Park	3.27	0.6638	0.0392	0.0000	1.6445
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1627.5	330.3678	19.5242	0.0000	818.4722
Government (Civic Center)	57	11.5705	0.6838	0.0000	28.6654
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Junior College (2Yr)	32.5	6.5972	0.3899	0.0000	16.3443
Regional Shopping Center	483	98.0446	5.7943	0.0000	242.9014
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		757.8566	44.7881	0.0000	1,877.5577

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation
