Appendix A

Air Quality

TAZ	2018 Daily Trips (In & Out)	2018 Avg Trip Length	2018 Daily VMT	2035 Daily Trips (In & Out)	2035 Avg Trip Length	2035 Daily VMT	2018-35 % change VMT	% change/year	5 year change	2040 Increase in Daily VMT	2040 Daily VMT	Change from 2018 to 2040 Net Daily VMT
290	616	13	8,211	6,694	11	73,500	0.9	5%	26%	19,203	92,703	84,491
292	1,194	12	14,519	1,212	12	14,629	0.0	0%	0%	32	14,661	142
298	988	14	13,694	2,426	14	33,333	0.6	3%	17%	5,776	39,110	25,416
299	1,894	14	26,838	4,414	14	63,826	0.6	3%	17%	10,879	74,705	47,867
300	304	13	4,071	2,068	13	27,773	0.9	5%	25%	6,971	34,745	30,674
301	620	13	8,320	632	14	8,545	0.0	0%	1%	66	8,611	290
360	6,784	10	64,855	7,023	10	69,879	0.1	0%	2%	1,478	71,356	6,501
361	5,224	11	55,322	5,445	11	60,222	0.1	0%	2%	1,441	61,663	6,341
362	2,756	12	34,147	3,586	12	44,646	0.2	1%	7%	3,088	47,734	13,587
363	4,254	11	46,241	4,366	11	48,899	0.1	0%	2%	782	49,681	3,440
364	5,958	10	59,520	6,152	10	63,366	0.1	0%	2%	1,131	64,497	4,976
365	500	13	6,640	606	13	8,090	0.2	1%	5%	427	8,517	1,877
366	266	13	3,519	370	13	4,758	0.3	2%	8%	364	5,123	1,603
1726	3,384	11	38,611	3,604	12	41,806	0.1	0%	2%	940	42,746	4,135
1727	5,580	9	51,113	11,275	9	101,137	0.5	3%	15%	14,713	115,850	64,737
1728	4,224	11	47,816	4,374	11	49,689	0.0	0%	1%	551	50,240	2,424
Kerman	**44,546**		**483,437**	**64,247**		**714,098**	**0.3**	2%	10%	**67,841**	**781,939**	**298,501**
										24,762,048.74	285,407,694.64	108,953,014.44

230660

2040 VMT = 5-year percent change times 2035 VMT

Inputs

Yrs btwn 2018 and 2035	17
Yrs btwn 2035 and 2040	5

Kerman General Plan 2040

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	42.96	1000sqft	3.94	42,960.00	0
Government Office Building	15.24	1000sqft	1.40	15,240.00	0
Medical Office Building	56.10	1000sqft	5.15	56,100.00	0
High School	47.45	1000sqft	4.36	47,450.00	0
Industrial Park	100.00	1000sqft	9.18	100,000.00	0
High Turnover (Sit Down Restaurant)	48.51	1000sqft	4.45	48,510.00	0
Apartments Low Rise	289.00	Dwelling Unit	18.06	289,000.00	1098
Single Family Housing	1,211.00	Dwelling Unit	393.18	2,179,800.00	4599
Strip Mall	126.25	1000sqft	11.59	126,250.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	99.41	**CH4 Intensity (lb/MWhr)**	0.004	**N2O Intensity (lb/MWhr)**	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - PGE factors reduced for 2040 Regulations

Land Use - Project specific land use and population

Construction Phase - Project-specific timeline

Architectural Coating - SJVAPCD Rule 4601

Vehicle Trips - Adjusted for net increase in VMT

Woodstoves -

Consumer Products -

Energy Use - Title 24 requirements reduce residential uses by 7 percent and commercial uses by 30 percent. SFR lighting reduced by 75 percent. Look up Kerman Solid Waste Diversion waste

Water And Wastewater - CalGreen Indoor Water Use Requirements, 20 percent reduction

Solid Waste - Based on 3.7 lbs/resident and 12.1 lbs/employee

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	1,608.84	402.21
tblEnergyUse	T24E	694.40	645.80
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	6.55	4.59
tblEnergyUse	T24E	2.62	1.83
tblEnergyUse	T24E	995.93	926.20
tblEnergyUse	T24E	2.14	1.50
tblLandUse	LotAcreage	0.99	3.94
tblLandUse	LotAcreage	0.35	1.40
tblLandUse	LotAcreage	1.29	5.15
tblLandUse	LotAcreage	1.09	4.36
tblLandUse	LotAcreage	2.30	9.18
tblLandUse	LotAcreage	1.11	4.45
tblLandUse	LotAcreage	2.90	11.59

tblLandUse	Population	827.00	1,098.00
tblLandUse	Population	3,463.00	4,599.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	99.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblSolidWaste	SolidWasteGenerationRate	132.94	195.15
tblSolidWaste	SolidWasteGenerationRate	39.95	264.99
tblSolidWaste	SolidWasteGenerationRate	14.17	66.25
tblSolidWaste	SolidWasteGenerationRate	61.69	287.07
tblSolidWaste	SolidWasteGenerationRate	577.27	463.73
tblSolidWaste	SolidWasteGenerationRate	124.00	220.83
tblSolidWaste	SolidWasteGenerationRate	605.88	375.40
tblSolidWaste	SolidWasteGenerationRate	1,655.64	817.73
tblSolidWaste	SolidWasteGenerationRate	132.56	552.06
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TTP	35.70	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TTP	15.90	0.00
tblVehicleTrips	HW_TL	10.80	1.00
tblVehicleTrips	HW_TTP	48.40	100.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	ST_TR	7.16	1,033.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	4.37	0.00
tblVehicleTrips	ST_TR	158.37	0.00

tblVehicleTrips	ST_TR	2.49	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	6.07	1,033.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	1.79	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	0.73	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	6.59	1,033.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	68.93	0.00
tblVehicleTrips	WD_TR	12.89	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	6.83	0.00
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	9.52	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Kerman General Plan 2040 - Fresno County, Annual

	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					
2020	0.4424	4.3547	2.9043	5.2400e-003	0.0157	0.2174	0.2331	4.1800e-003	0.2021	0.2063	0.0000	458.9784	458.9784	0.1261	0.0000	462.1307
2021	0.4293	4.2120	2.8598	5.2000e-003	0.2237	0.2082	0.4319	0.1184	0.1932	0.3117	0.0000	456.3715	456.3715	0.1267	0.0000	459.5376
2022	0.4208	4.3060	2.6145	5.1100e-003	2.3673	0.2098	2.5771	1.2960	0.1930	1.4889	0.0000	449.7869	449.7869	0.1409	0.0000	453.3104
2023	0.4351	4.4326	3.6175	8.0400e-003	1.9333	0.1840	2.1172	0.6030	0.1692	0.7723	0.0000	707.0522	707.0522	0.2238	0.0000	712.6481
2024	0.4300	4.2460	3.6823	8.3000e-003	1.8372	0.1751	2.0123	0.5501	0.1611	0.7112	0.0000	729.8168	729.8168	0.2313	0.0000	735.5993
2025	0.3865	3.6507	3.4826	8.2600e-003	1.8341	0.1477	1.9818	0.5485	0.1359	0.6843	0.0000	726.2387	726.2387	0.2303	0.0000	731.9968
2026	0.5283	4.2216	4.1615	0.0177	2.0578	0.0783	2.1361	0.3970	0.0735	0.4705	0.0000	1,616.6790	1,616.6790	0.1490	0.0000	1,620.4031
2027	0.5155	4.2083	4.0548	0.0177	1.0385	0.0756	1.1140	0.2806	0.0710	0.3517	0.0000	1,624.3758	1,624.3758	0.1449	0.0000	1,627.9993
2028	0.4951	4.1658	3.9264	0.0174	1.0345	0.0750	1.1094	0.2796	0.0705	0.3500	0.0000	1,597.2792	1,597.2792	0.1431	0.0000	1,600.8573
2029	0.4776	4.1563	3.8352	0.0173	1.0385	0.0749	1.1134	0.2807	0.0705	0.3511	0.0000	1,584.8923	1,584.8923	0.1423	0.0000	1,588.4503
2030	0.4509	3.5419	3.7497	0.0176	1.0385	0.0251	1.0636	0.2807	0.0248	0.3054	0.0000	1,609.1984	1,609.1984	0.0836	0.0000	1,611.2880
2031	0.4308	3.5218	3.6600	0.0175	1.0385	0.0249	1.0633	0.2807	0.0245	0.3052	0.0000	1,595.3385	1,595.3385	0.0825	0.0000	1,597.3998
2032	0.4144	3.5179	3.5954	0.0174	1.0424	0.0247	1.0672	0.2817	0.0244	0.3061	0.0000	1,589.7677	1,589.7677	0.0819	0.0000	1,591.8139
2033	0.3958	3.4765	3.5009	0.0172	1.0345	0.0243	1.0588	0.2796	0.0240	0.3036	0.0000	1,567.7953	1,567.7953	0.0803	0.0000	1,569.8015
2034	0.3835	3.4644	3.4409	0.0171	1.0345	0.0241	1.0586	0.2796	0.0238	0.3034	0.0000	1,559.5337	1,559.5337	0.0795	0.0000	1,561.5205
2035	0.3624	3.3668	3.3983	0.0171	1.0385	0.0165	1.0550	0.2807	0.0162	0.2969	0.0000	1,558.5764	1,558.5764	0.0781	0.0000	1,560.5290
2036	0.3638	3.3797	3.4113	0.0171	1.0424	0.0166	1.0590	0.2817	0.0163	0.2980	0.0000	1,564.5479	1,564.5479	0.0784	0.0000	1,566.5080

	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					
2037	1.7662	3.4502	3.6779	0.0176	1.0589	0.0194	1.0783	0.2861	0.0191	0.3052	0.0000	1,608.6161	1,608.6161	0.0797	0.0000	1,610.6085
2038	12.9966	4.1178	5.9141	0.0222	1.2221	0.0428	1.2649	0.3295	0.0425	0.3719	0.0000	2,008.9337	2,008.9337	0.0925	0.0000	2,011.2451
2039	12.9468	4.1020	5.8915	0.0222	1.2174	0.0426	1.2600	0.3282	0.0423	0.3705	0.0000	2,001.2367	2,001.2367	0.0921	0.0000	2,003.5392
Maximum	**12.9966**	**4.4326**	**5.9141**	**0.0222**	**2.3673**	**0.2174**	**2.5771**	**1.2960**	**0.2021**	**1.4889**	**0.0000**	**2,008.9337**	**2,008.9337**	**0.2313**	**0.0000**	**2,011.2451**

2.1 Overall Construction

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					
2020	0.4424	4.3547	2.9043	5.2400e-003	0.0157	0.2174	0.2331	4.1800e-003	0.2021	0.2063	0.0000	458.9778	458.9778	0.1261	0.0000	462.1301
2021	0.4293	4.2120	2.8597	5.2000e-003	0.2237	0.2082	0.4319	0.1184	0.1932	0.3117	0.0000	456.3710	456.3710	0.1267	0.0000	459.5371
2022	0.4208	4.3059	2.6145	5.1100e-003	2.3673	0.2098	2.5771	1.2960	0.1930	1.4889	0.0000	449.7864	449.7864	0.1409	0.0000	453.3099
2023	0.4351	4.4326	3.6175	8.0400e-003	1.9333	0.1840	2.1172	0.6030	0.1692	0.7723	0.0000	707.0514	707.0514	0.2238	0.0000	712.6472
2024	0.4300	4.2460	3.6823	8.3000e-003	1.8372	0.1751	2.0123	0.5501	0.1611	0.7112	0.0000	729.8160	729.8160	0.2313	0.0000	735.5984
2025	0.3865	3.6507	3.4826	8.2600e-003	1.8341	0.1477	1.9818	0.5485	0.1359	0.6843	0.0000	726.2378	726.2378	0.2303	0.0000	731.9960
2026	0.5283	4.2216	4.1615	0.0177	2.0578	0.0783	2.1361	0.3970	0.0735	0.4705	0.0000	1,616.6786	1,616.6786	0.1490	0.0000	1,620.4027
2027	0.5155	4.2083	4.0548	0.0177	1.0385	0.0756	1.1140	0.2806	0.0710	0.3517	0.0000	1,624.3754	1,624.3754	0.1449	0.0000	1,627.9990

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	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					
2028	0.4951	4.1658	3.9264	0.0174	1.0345	0.0750	1.1094	0.2796	0.0705	0.3500	0.0000	1,597.2788	1,597.2788	0.1431	0.0000	1,600.8569
2029	0.4776	4.1563	3.8352	0.0173	1.0385	0.0749	1.1134	0.2807	0.0705	0.3511	0.0000	1,584.8920	1,584.8920	0.1423	0.0000	1,588.4499
2030	0.4509	3.5419	3.7497	0.0176	1.0385	0.0251	1.0636	0.2807	0.0248	0.3054	0.0000	1,609.1980	1,609.1980	0.0836	0.0000	1,611.2876
2031	0.4308	3.5218	3.6600	0.0175	1.0385	0.0249	1.0633	0.2807	0.0245	0.3052	0.0000	1,595.3381	1,595.3381	0.0825	0.0000	1,597.3994
2032	0.4144	3.5179	3.5954	0.0174	1.0424	0.0247	1.0672	0.2817	0.0244	0.3061	0.0000	1,589.7673	1,589.7673	0.0819	0.0000	1,591.8135
2033	0.3958	3.4765	3.5009	0.0172	1.0345	0.0243	1.0588	0.2796	0.0240	0.3036	0.0000	1,567.7949	1,567.7949	0.0803	0.0000	1,569.8010
2034	0.3835	3.4644	3.4409	0.0171	1.0345	0.0241	1.0586	0.2796	0.0238	0.3034	0.0000	1,559.5333	1,559.5333	0.0795	0.0000	1,561.5201
2035	0.3624	3.3668	3.3983	0.0171	1.0385	0.0165	1.0550	0.2807	0.0162	0.2969	0.0000	1,558.5760	1,558.5760	0.0781	0.0000	1,560.5286
2036	0.3638	3.3797	3.4113	0.0171	1.0424	0.0166	1.0590	0.2817	0.0163	0.2980	0.0000	1,564.5475	1,564.5475	0.0784	0.0000	1,566.5076
2037	1.7662	3.4502	3.6779	0.0176	1.0589	0.0194	1.0783	0.2861	0.0191	0.3052	0.0000	1,608.6156	1,608.6156	0.0797	0.0000	1,610.6081
2038	12.9966	4.1178	5.9141	0.0222	1.2221	0.0428	1.2649	0.3295	0.0425	0.3719	0.0000	2,008.9329	2,008.9329	0.0925	0.0000	2,011.2443
2039	12.9468	4.1020	5.8915	0.0222	1.2174	0.0426	1.2600	0.3282	0.0423	0.3705	0.0000	2,001.2359	2,001.2359	0.0921	0.0000	2,003.5383
Maximum	**12.9966**	**4.4326**	**5.9141**	**0.0222**	**2.3673**	**0.2174**	**2.5771**	**1.2960**	**0.2021**	**1.4889**	**0.0000**	**2,008.9329**	**2,008.9329**	**0.2313**	**0.0000**	**2,011.2443**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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)
1	**1-1-2020**	**3-31-2020**	1.1904	1.1904
2	**4-1-2020**	**6-30-2020**	1.1903	1.1903

3	**7-1-2020**	**9-30-2020**	1.2034	1.2034
4	**10-1-2020**	**12-31-2020**	1.2034	1.2034
5	**1-1-2021**	**3-31-2021**	1.1156	1.1156
6	**4-1-2021**	**6-30-2021**	1.1280	1.1280
7	**7-1-2021**	**9-30-2021**	1.1404	1.1404
8	**10-1-2021**	**12-31-2021**	1.2489	1.2489
9	**1-1-2022**	**3-31-2022**	1.1689	1.1689
10	**4-1-2022**	**6-30-2022**	1.1819	1.1819
11	**7-1-2022**	**9-30-2022**	1.1949	1.1949
12	**10-1-2022**	**12-31-2022**	1.1949	1.1949
13	**1-1-2023**	**3-31-2023**	1.1542	1.1542
14	**4-1-2023**	**6-30-2023**	1.2334	1.2334
15	**7-1-2023**	**9-30-2023**	1.2470	1.2470
16	**10-1-2023**	**12-31-2023**	1.2470	1.2470
17	**1-1-2024**	**3-31-2024**	1.1603	1.1603
18	**4-1-2024**	**6-30-2024**	1.1603	1.1603
19	**7-1-2024**	**9-30-2024**	1.1730	1.1730
20	**10-1-2024**	**12-31-2024**	1.1731	1.1731
21	**1-1-2025**	**3-31-2025**	0.9946	0.9946
22	**4-1-2025**	**6-30-2025**	1.0056	1.0056
23	**7-1-2025**	**9-30-2025**	1.0167	1.0167
24	**10-1-2025**	**12-31-2025**	1.0167	1.0167
25	**1-1-2026**	**3-31-2026**	1.1553	1.1553
26	**4-1-2026**	**6-30-2026**	1.1916	1.1916
27	**7-1-2026**	**9-30-2026**	1.2047	1.2047
28	**10-1-2026**	**12-31-2026**	1.2087	1.2087
29	**1-1-2027**	**3-31-2027**	1.1693	1.1693

30	**4-1-2027**	**6-30-2027**	1.1785	1.1785
31	**7-1-2027**	**9-30-2027**	1.1914	1.1914
32	**10-1-2027**	**12-31-2027**	1.1952	1.1952
33	**1-1-2028**	**3-31-2028**	1.1706	1.1706
34	**4-1-2028**	**6-30-2028**	1.1670	1.1670
35	**7-1-2028**	**9-30-2028**	1.1798	1.1798
36	**10-1-2028**	**12-31-2028**	1.1834	1.1834
37	**1-1-2029**	**3-31-2029**	1.1461	1.1461
38	**4-1-2029**	**6-30-2029**	1.1554	1.1554
39	**7-1-2029**	**9-30-2029**	1.1681	1.1681
40	**10-1-2029**	**12-31-2029**	1.1716	1.1716
41	**1-1-2030**	**3-31-2030**	0.9877	0.9877
42	**4-1-2030**	**6-30-2030**	0.9954	0.9954
43	**7-1-2030**	**9-30-2030**	1.0064	1.0064
44	**10-1-2030**	**12-31-2030**	1.0097	1.0097
45	**1-1-2031**	**3-31-2031**	0.9773	0.9773
46	**4-1-2031**	**6-30-2031**	0.9850	0.9850
47	**7-1-2031**	**9-30-2031**	0.9959	0.9959
48	**10-1-2031**	**12-31-2031**	0.9990	0.9990
49	**1-1-2032**	**3-31-2032**	0.9788	0.9788
50	**4-1-2032**	**6-30-2032**	0.9759	0.9759
51	**7-1-2032**	**9-30-2032**	0.9866	0.9866
52	**10-1-2032**	**12-31-2032**	0.9896	0.9896
53	**1-1-2033**	**3-31-2033**	0.9602	0.9602
54	**4-1-2033**	**6-30-2033**	0.9681	0.9681
55	**7-1-2033**	**9-30-2033**	0.9787	0.9787
56	**10-1-2033**	**12-31-2033**	0.9816	0.9816

57	**1-1-2034**	**3-31-2034**	0.9539	0.9539
58	**4-1-2034**	**6-30-2034**	0.9617	0.9617
59	**7-1-2034**	**9-30-2034**	0.9722	0.9722
60	**10-1-2034**	**12-31-2034**	0.9751	0.9751
61	**1-1-2035**	**3-31-2035**	0.9207	0.9207
62	**4-1-2035**	**6-30-2035**	0.9281	0.9281
63	**7-1-2035**	**9-30-2035**	0.9383	0.9383
64	**10-1-2035**	**12-31-2035**	0.9412	0.9412
65	**1-1-2036**	**3-31-2036**	0.9310	0.9310
66	**4-1-2036**	**6-30-2036**	0.9281	0.9281
67	**7-1-2036**	**9-30-2036**	0.9383	0.9383
68	**10-1-2036**	**12-31-2036**	0.9412	0.9412
69	**1-1-2037**	**3-31-2037**	0.9207	0.9207
70	**4-1-2037**	**6-30-2037**	0.9281	0.9281
71	**7-1-2037**	**9-30-2037**	0.9383	0.9383
72	**10-1-2037**	**12-31-2037**	2.3703	2.3703
73	**1-1-2038**	**3-31-2038**	4.2185	4.2185
74	**4-1-2038**	**6-30-2038**	4.2623	4.2623
75	**7-1-2038**	**9-30-2038**	4.3092	4.3092
76	**10-1-2038**	**12-31-2038**	4.3123	4.3123
77	**1-1-2039**	**3-31-2039**	4.2185	4.2185
78	**4-1-2039**	**6-30-2039**	4.2623	4.2623
79	**7-1-2039**	**9-30-2039**	4.3092	4.3092
		Highest	4.3123	4.3123

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	22.7459	1.9307	87.4425	0.2525		12.5233	12.5233		12.5233	12.5233	1,662.5294	668.0121	2,330.5415	7.8018	0.0119	2,529.1361
Energy	0.2766	2.4093	1.3411	0.0151		0.1911	0.1911		0.1911	0.1911	0.0000	3,407.1542	3,407.1542	0.0794	0.0569	3,426.1023
Mobile	28.3440	660.5621	145.2959	1.3060	41.6026	0.3131	41.9157	11.2028	0.2929	11.4957	0.0000	123,203.0557	123,203.0557	27.3695	0.0000	123,887.2933
Waste						0.0000	0.0000		0.0000	0.0000	658.3423	0.0000	658.3423	38.9069	0.0000	1,631.0152
Water						0.0000	0.0000		0.0000	0.0000	52.0963	52.7249	104.8212	5.3529	0.1269	276.4525
Total	**51.3666**	**664.9021**	**234.0796**	**1.5735**	**41.6026**	**13.0275**	**54.6301**	**11.2028**	**13.0073**	**24.2101**	**2,372.9680**	**127,330.9469**	**129,703.9149**	**79.5105**	**0.1957**	**131,749.9994**

2.2 Overall Operational

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	22.7459	1.9307	87.4425	0.2525		12.5233	12.5233		12.5233	12.5233	1,662.5294	668.0121	2,330.5415	7.8018	0.0119	2,529.1361
Energy	0.2766	2.4093	1.3411	0.0151		0.1911	0.1911		0.1911	0.1911	0.0000	3,407.1542	3,407.1542	0.0794	0.0569	3,426.1023
Mobile	28.3440	660.5621	145.2959	1.3060	41.6026	0.3131	41.9157	11.2028	0.2929	11.4957	0.0000	123,203.0557	123,203.0557	27.3695	0.0000	123,887.2933
Waste						0.0000	0.0000		0.0000	0.0000	658.3423	0.0000	658.3423	38.9069	0.0000	1,631.0152
Water						0.0000	0.0000		0.0000	0.0000	52.0963	52.7249	104.8212	5.3529	0.1269	276.4525
Total	**51.3666**	**664.9021**	**234.0796**	**1.5735**	**41.6026**	**13.0275**	**54.6301**	**11.2028**	**13.0073**	**24.2101**	**2,372.9680**	**127,330.9469**	**129,703.9149**	**79.5105**	**0.1957**	**131,749.9994**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	11/30/2021	5	500	
2	Site Preparation	Site Preparation	12/1/2021	1/24/2023	5	300	
3	Grading	Grading	1/25/2023	1/13/2026	5	775	
4	Building Construction	Building Construction	1/14/2026	12/31/2039	5	7750	
5	Paving	Paving	11/23/2037	12/30/2039	5	550	
6	Architectural Coating	Architectural Coating	11/23/2037	12/30/2039	5	550	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1937.5

Acres of Paving: 0

Residential Indoor: 4,999,320; Residential Outdoor: 1,666,440; Non-Residential Indoor: 654,765; Non-Residential Outdoor: 218,255; Striped Parking Area: 0 (Architectural Coating – sqft)

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	0.00	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	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	803.00	232.00	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	161.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.4339	4.3493	2.8497	5.0800e-003		0.2173	0.2173		0.2020	0.2020	0.0000	445.3818	445.3818	0.1257	0.0000	448.5250
Total	**0.4339**	**4.3493**	**2.8497**	**5.0800e-003**		**0.2173**	**0.2173**		**0.2020**	**0.2020**	**0.0000**	**445.3818**	**445.3818**	**0.1257**	**0.0000**	**448.5250**

3.2 Demolition - 2020

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	8.4800e-003	5.3800e-003	0.0546	1.5000e-004	0.0157	1.0000e-004	0.0158	4.1800e-003	9.0000e-005	4.2700e-003	0.0000	13.5966	13.5966	3.6000e-004	0.0000	13.6057
Total	**8.4800e-003**	**5.3800e-003**	**0.0546**	**1.5000e-004**	**0.0157**	**1.0000e-004**	**0.0158**	**4.1800e-003**	**9.0000e-005**	**4.2700e-003**	**0.0000**	**13.5966**	**13.5966**	**3.6000e-004**	**0.0000**	**13.6057**

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	0.4339	4.3493	2.8497	5.0800e-003		0.2173	0.2173		0.2020	0.2020	0.0000	445.3812	445.3812	0.1257	0.0000	448.5244
Total	**0.4339**	**4.3493**	**2.8497**	**5.0800e-003**		**0.2173**	**0.2173**		**0.2020**	**0.2020**	**0.0000**	**445.3812**	**445.3812**	**0.1257**	**0.0000**	**448.5244**

3.2 Demolition - 2020

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	8.4800e-003	5.3800e-003	0.0546	1.5000e-004	0.0157	1.0000e-004	0.0158	4.1800e-003	9.0000e-005	4.2700e-003	0.0000	13.5966	13.5966	3.6000e-004	0.0000	13.6057
Total	**8.4800e-003**	**5.3800e-003**	**0.0546**	**1.5000e-004**	**0.0157**	**1.0000e-004**	**0.0158**	**4.1800e-003**	**9.0000e-005**	**4.2700e-003**	**0.0000**	**13.5966**	**13.5966**	**3.6000e-004**	**0.0000**	**13.6057**

3.2 Demolition - 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	0.3767	3.7414	2.5662	4.6200e-003		0.1846	0.1846		0.1715	0.1715	0.0000	404.6093	404.6093	0.1139	0.0000	407.4564
Total	**0.3767**	**3.7414**	**2.5662**	**4.6200e-003**		**0.1846**	**0.1846**		**0.1715**	**0.1715**	**0.0000**	**404.6093**	**404.6093**	**0.1139**	**0.0000**	**407.4564**

3.2 Demolition - 2021

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	7.1200e-003	4.3500e-003	0.0450	1.3000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8700e-003	0.0000	11.9279	11.9279	2.9000e-004	0.0000	11.9352
Total	**7.1200e-003**	**4.3500e-003**	**0.0450**	**1.3000e-004**	**0.0143**	**9.0000e-005**	**0.0144**	**3.7900e-003**	**8.0000e-005**	**3.8700e-003**	**0.0000**	**11.9279**	**11.9279**	**2.9000e-004**	**0.0000**	**11.9352**

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	0.3767	3.7414	2.5662	4.6200e-003		0.1846	0.1846		0.1715	0.1715	0.0000	404.6089	404.6089	0.1139	0.0000	407.4559
Total	**0.3767**	**3.7414**	**2.5662**	**4.6200e-003**		**0.1846**	**0.1846**		**0.1715**	**0.1715**	**0.0000**	**404.6089**	**404.6089**	**0.1139**	**0.0000**	**407.4559**

3.2 Demolition - 2021

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	7.1200e-003	4.3500e-003	0.0450	1.3000e-004	0.0143	9.0000e-005	0.0144	3.7900e-003	8.0000e-005	3.8700e-003	0.0000	11.9279	11.9279	2.9000e-004	0.0000	11.9352
Total	**7.1200e-003**	**4.3500e-003**	**0.0450**	**1.3000e-004**	**0.0143**	**9.0000e-005**	**0.0144**	**3.7900e-003**	**8.0000e-005**	**3.8700e-003**	**0.0000**	**11.9279**	**11.9279**	**2.9000e-004**	**0.0000**	**11.9352**

3.3 Site Preparation - 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					
Fugitive Dust					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	0.4657	0.2433	4.4000e-004		0.0235	0.0235		0.0216	0.0216	0.0000	38.4511	38.4511	0.0124	0.0000	38.7620
Total	**0.0447**	**0.4657**	**0.2433**	**4.4000e-004**	**0.2078**	**0.0235**	**0.2313**	**0.1142**	**0.0216**	**0.1358**	**0.0000**	**38.4511**	**38.4511**	**0.0124**	**0.0000**	**38.7620**

3.3 Site Preparation - 2021

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	8.3000e-004	5.0000e-004	5.2200e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6700e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3832	1.3832	3.0000e-005	0.0000	1.3841
Total	**8.3000e-004**	**5.0000e-004**	**5.2200e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6700e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3832**	**1.3832**	**3.0000e-005**	**0.0000**	**1.3841**

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					0.2078	0.0000	0.2078	0.1142	0.0000	0.1142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0447	0.4657	0.2433	4.4000e-004		0.0235	0.0235		0.0216	0.0216	0.0000	38.4510	38.4510	0.0124	0.0000	38.7619
Total	**0.0447**	**0.4657**	**0.2433**	**4.4000e-004**	**0.2078**	**0.0235**	**0.2313**	**0.1142**	**0.0216**	**0.1358**	**0.0000**	**38.4510**	**38.4510**	**0.0124**	**0.0000**	**38.7619**

3.3 Site Preparation - 2021

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	8.3000e-004	5.0000e-004	5.2200e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6700e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3832	1.3832	3.0000e-005	0.0000	1.3841
Total	**8.3000e-004**	**5.0000e-004**	**5.2200e-003**	**2.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6700e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.3832**	**1.3832**	**3.0000e-005**	**0.0000**	**1.3841**

3.3 Site Preparation - 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					
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4121	4.3009	2.5607	4.9500e-003		0.2096	0.2096		0.1929	0.1929	0.0000	434.7121	434.7121	0.1406	0.0000	438.2270
Total	**0.4121**	**4.3009**	**2.5607**	**4.9500e-003**	**2.3486**	**0.2096**	**2.5582**	**1.2910**	**0.1929**	**1.4839**	**0.0000**	**434.7121**	**434.7121**	**0.1406**	**0.0000**	**438.2270**

3.3 Site Preparation - 2022

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	8.6700e-003	5.0900e-003	0.0538	1.7000e-004	0.0187	1.1000e-004	0.0188	4.9700e-003	1.0000e-004	5.0800e-003	0.0000	15.0749	15.0749	3.4000e-004	0.0000	15.0835
Total	**8.6700e-003**	**5.0900e-003**	**0.0538**	**1.7000e-004**	**0.0187**	**1.1000e-004**	**0.0188**	**4.9700e-003**	**1.0000e-004**	**5.0800e-003**	**0.0000**	**15.0749**	**15.0749**	**3.4000e-004**	**0.0000**	**15.0835**

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					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4121	4.3009	2.5607	4.9500e-003		0.2096	0.2096		0.1929	0.1929	0.0000	434.7116	434.7116	0.1406	0.0000	438.2264
Total	**0.4121**	**4.3009**	**2.5607**	**4.9500e-003**	**2.3486**	**0.2096**	**2.5582**	**1.2910**	**0.1929**	**1.4839**	**0.0000**	**434.7116**	**434.7116**	**0.1406**	**0.0000**	**438.2264**

3.3 Site Preparation - 2022

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	8.6700e-003	5.0900e-003	0.0538	1.7000e-004	0.0187	1.1000e-004	0.0188	4.9700e-003	1.0000e-004	5.0800e-003	0.0000	15.0749	15.0749	3.4000e-004	0.0000	15.0835
Total	**8.6700e-003**	**5.0900e-003**	**0.0538**	**1.7000e-004**	**0.0187**	**1.1000e-004**	**0.0188**	**4.9700e-003**	**1.0000e-004**	**5.0800e-003**	**0.0000**	**15.0749**	**15.0749**	**3.4000e-004**	**0.0000**	**15.0835**

3.3 Site Preparation - 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					
Fugitive Dust					0.1536	0.0000	0.1536	0.0844	0.0000	0.0844	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2340	0.1551	3.2000e-004		0.0108	0.0108		9.9000e-003	9.9000e-003	0.0000	28.4331	28.4331	9.2000e-003	0.0000	28.6630
Total	**0.0226**	**0.2340**	**0.1551**	**3.2000e-004**	**0.1536**	**0.0108**	**0.1643**	**0.0844**	**9.9000e-003**	**0.0943**	**0.0000**	**28.4331**	**28.4331**	**9.2000e-003**	**0.0000**	**28.6630**

3.3 Site Preparation - 2023

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	5.3000e-004	3.0000e-004	3.2100e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9487	0.9487	2.0000e-005	0.0000	0.9492
Total	**5.3000e-004**	**3.0000e-004**	**3.2100e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2300e-003**	**3.3000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9487**	**0.9487**	**2.0000e-005**	**0.0000**	**0.9492**

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					0.1536	0.0000	0.1536	0.0844	0.0000	0.0844	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0226	0.2340	0.1551	3.2000e-004		0.0108	0.0108		9.9000e-003	9.9000e-003	0.0000	28.4331	28.4331	9.2000e-003	0.0000	28.6630
Total	**0.0226**	**0.2340**	**0.1551**	**3.2000e-004**	**0.1536**	**0.0108**	**0.1643**	**0.0844**	**9.9000e-003**	**0.0943**	**0.0000**	**28.4331**	**28.4331**	**9.2000e-003**	**0.0000**	**28.6630**

3.3 Site Preparation - 2023

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	5.3000e-004	3.0000e-004	3.2100e-003	1.0000e-005	1.2200e-003	1.0000e-005	1.2300e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9487	0.9487	2.0000e-005	0.0000	0.9492
Total	**5.3000e-004**	**3.0000e-004**	**3.2100e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2300e-003**	**3.3000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**0.9487**	**0.9487**	**2.0000e-005**	**0.0000**	**0.9492**

3.4 Grading - 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					
Fugitive Dust					1.7590	0.0000	1.7590	0.5131	0.0000	0.5131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4036	4.1937	3.4082	7.5400e-003		0.1731	0.1731		0.1592	0.1592	0.0000	662.6028	662.6028	0.2143	0.0000	667.9603
Total	**0.4036**	**4.1937**	**3.4082**	**7.5400e-003**	**1.7590**	**0.1731**	**1.9321**	**0.5131**	**0.1592**	**0.6724**	**0.0000**	**662.6028**	**662.6028**	**0.2143**	**0.0000**	**667.9603**

3.4 Grading - 2023

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	8.3800e-003	4.7300e-003	0.0510	1.7000e-004	0.0194	1.1000e-004	0.0195	5.1600e-003	1.1000e-004	5.2700e-003	0.0000	15.0676	15.0676	3.2000e-004	0.0000	15.0756
Total	**8.3800e-003**	**4.7300e-003**	**0.0510**	**1.7000e-004**	**0.0194**	**1.1000e-004**	**0.0195**	**5.1600e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**15.0676**	**15.0676**	**3.2000e-004**	**0.0000**	**15.0756**

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					1.7590	0.0000	1.7590	0.5131	0.0000	0.5131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4036	4.1936	3.4082	7.5400e-003		0.1731	0.1731		0.1592	0.1592	0.0000	662.6020	662.6020	0.2143	0.0000	667.9595
Total	**0.4036**	**4.1936**	**3.4082**	**7.5400e-003**	**1.7590**	**0.1731**	**1.9321**	**0.5131**	**0.1592**	**0.6724**	**0.0000**	**662.6020**	**662.6020**	**0.2143**	**0.0000**	**667.9595**

3.4 Grading - 2023

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	8.3800e-003	4.7300e-003	0.0510	1.7000e-004	0.0194	1.1000e-004	0.0195	5.1600e-003	1.1000e-004	5.2700e-003	0.0000	15.0676	15.0676	3.2000e-004	0.0000	15.0756
Total	**8.3800e-003**	**4.7300e-003**	**0.0510**	**1.7000e-004**	**0.0194**	**1.1000e-004**	**0.0195**	**5.1600e-003**	**1.1000e-004**	**5.2700e-003**	**0.0000**	**15.0676**	**15.0676**	**3.2000e-004**	**0.0000**	**15.0756**

3.4 Grading - 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					
Fugitive Dust					1.8163	0.0000	1.8163	0.5446	0.0000	0.5446	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2058	714.2058	0.2310	0.0000	719.9805
Total	**0.4216**	**4.2414**	**3.6317**	**8.1300e-003**	**1.8163**	**0.1749**	**1.9912**	**0.5446**	**0.1609**	**0.7055**	**0.0000**	**714.2058**	**714.2058**	**0.2310**	**0.0000**	**719.9805**

3.4 Grading - 2024

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	8.4500e-003	4.5800e-003	0.0506	1.7000e-004	0.0210	1.2000e-004	0.0211	5.5700e-003	1.1000e-004	5.6800e-003	0.0000	15.6111	15.6111	3.1000e-004	0.0000	15.6188
Total	**8.4500e-003**	**4.5800e-003**	**0.0506**	**1.7000e-004**	**0.0210**	**1.2000e-004**	**0.0211**	**5.5700e-003**	**1.1000e-004**	**5.6800e-003**	**0.0000**	**15.6111**	**15.6111**	**3.1000e-004**	**0.0000**	**15.6188**

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					1.8163	0.0000	1.8163	0.5446	0.0000	0.5446	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4216	4.2414	3.6317	8.1300e-003		0.1749	0.1749		0.1609	0.1609	0.0000	714.2049	714.2049	0.2310	0.0000	719.9796
Total	**0.4216**	**4.2414**	**3.6317**	**8.1300e-003**	**1.8163**	**0.1749**	**1.9912**	**0.5446**	**0.1609**	**0.7055**	**0.0000**	**714.2049**	**714.2049**	**0.2310**	**0.0000**	**719.9796**

3.4 Grading - 2024

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	8.4500e-003	4.5800e-003	0.0506	1.7000e-004	0.0210	1.2000e-004	0.0211	5.5700e-003	1.1000e-004	5.6800e-003	0.0000	15.6111	15.6111	3.1000e-004	0.0000	15.6188
Total	**8.4500e-003**	**4.5800e-003**	**0.0506**	**1.7000e-004**	**0.0210**	**1.2000e-004**	**0.0211**	**5.5700e-003**	**1.1000e-004**	**5.6800e-003**	**0.0000**	**15.6111**	**15.6111**	**3.1000e-004**	**0.0000**	**15.6188**

3.4 Grading - 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					
Fugitive Dust					1.8132	0.0000	1.8132	0.5429	0.0000	0.5429	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6466	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3061	711.3061	0.2301	0.0000	717.0573
Total	**0.3786**	**3.6466**	**3.4362**	**8.1000e-003**	**1.8132**	**0.1476**	**1.9608**	**0.5429**	**0.1358**	**0.6787**	**0.0000**	**711.3061**	**711.3061**	**0.2301**	**0.0000**	**717.0573**

3.4 Grading - 2025

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	7.9200e-003	4.1200e-003	0.0464	1.7000e-004	0.0209	1.2000e-004	0.0210	5.5500e-003	1.1000e-004	5.6500e-003	0.0000	14.9326	14.9326	2.8000e-004	0.0000	14.9395
Total	**7.9200e-003**	**4.1200e-003**	**0.0464**	**1.7000e-004**	**0.0209**	**1.2000e-004**	**0.0210**	**5.5500e-003**	**1.1000e-004**	**5.6500e-003**	**0.0000**	**14.9326**	**14.9326**	**2.8000e-004**	**0.0000**	**14.9395**

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					1.8132	0.0000	1.8132	0.5429	0.0000	0.5429	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3786	3.6465	3.4362	8.1000e-003		0.1476	0.1476		0.1358	0.1358	0.0000	711.3052	711.3052	0.2301	0.0000	717.0565
Total	**0.3786**	**3.6465**	**3.4362**	**8.1000e-003**	**1.8132**	**0.1476**	**1.9608**	**0.5429**	**0.1358**	**0.6787**	**0.0000**	**711.3052**	**711.3052**	**0.2301**	**0.0000**	**717.0565**

3.4 Grading - 2025

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	7.9200e-003	4.1200e-003	0.0464	1.7000e-004	0.0209	1.2000e-004	0.0210	5.5500e-003	1.1000e-004	5.6500e-003	0.0000	14.9326	14.9326	2.8000e-004	0.0000	14.9395
Total	**7.9200e-003**	**4.1200e-003**	**0.0464**	**1.7000e-004**	**0.0209**	**1.2000e-004**	**0.0210**	**5.5500e-003**	**1.1000e-004**	**5.6500e-003**	**0.0000**	**14.9326**	**14.9326**	**2.8000e-004**	**0.0000**	**14.9395**

3.4 Grading - 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					
Fugitive Dust					1.0545	0.0000	1.0545	0.1258	0.0000	0.1258	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1257	0.1185	2.8000e-004		5.0900e-003	5.0900e-003		4.6800e-003	4.6800e-003	0.0000	24.5278	24.5278	7.9300e-003	0.0000	24.7261
Total	**0.0131**	**0.1257**	**0.1185**	**2.8000e-004**	**1.0545**	**5.0900e-003**	**1.0596**	**0.1258**	**4.6800e-003**	**0.1305**	**0.0000**	**24.5278**	**24.5278**	**7.9300e-003**	**0.0000**	**24.7261**

3.4 Grading - 2026

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	2.6000e-004	1.3000e-004	1.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	0.0000	0.4990
Total	**2.6000e-004**	**1.3000e-004**	**1.5000e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4988**	**0.4988**	**1.0000e-005**	**0.0000**	**0.4990**

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					1.0545	0.0000	1.0545	0.1258	0.0000	0.1258	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0131	0.1257	0.1185	2.8000e-004		5.0900e-003	5.0900e-003		4.6800e-003	4.6800e-003	0.0000	24.5278	24.5278	7.9300e-003	0.0000	24.7261
Total	**0.0131**	**0.1257**	**0.1185**	**2.8000e-004**	**1.0545**	**5.0900e-003**	**1.0596**	**0.1258**	**4.6800e-003**	**0.1305**	**0.0000**	**24.5278**	**24.5278**	**7.9300e-003**	**0.0000**	**24.7261**

3.4 Grading - 2026

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	2.6000e-004	1.3000e-004	1.5000e-003	1.0000e-005	7.2000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.4988	0.4988	1.0000e-005	0.0000	0.4990
Total	**2.6000e-004**	**1.3000e-004**	**1.5000e-003**	**1.0000e-005**	**7.2000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.4988**	**0.4988**	**1.0000e-005**	**0.0000**	**0.4990**

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	0.1723	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**

3.5 Building Construction - 2026

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	0.0525	2.3788	0.3328	7.7700e-003	0.1938	2.2600e-003	0.1960	0.0560	2.1600e-003	0.0581	0.0000	738.7012	738.7012	0.0625	0.0000	740.2640
Worker	0.2902	0.1458	1.6820	6.2000e-003	0.8089	4.4800e-003	0.8134	0.2150	4.1200e-003	0.2191	0.0000	560.7327	560.7327	9.8200e-003	0.0000	560.9782
Total	**0.3427**	**2.5246**	**2.0149**	**0.0140**	**1.0026**	**6.7400e-003**	**1.0094**	**0.2710**	**6.2800e-003**	**0.2773**	**0.0000**	**1,299.4339**	**1,299.4339**	**0.0723**	**0.0000**	**1,301.2422**

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**

3.5 Building Construction - 2026

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	0.0525	2.3788	0.3328	7.7700e-003	0.1938	2.2600e-003	0.1960	0.0560	2.1600e-003	0.0581	0.0000	738.7012	738.7012	0.0625	0.0000	740.2640
Worker	0.2902	0.1458	1.6820	6.2000e-003	0.8089	4.4800e-003	0.8134	0.2150	4.1200e-003	0.2191	0.0000	560.7327	560.7327	9.8200e-003	0.0000	560.9782
Total	**0.3427**	**2.5246**	**2.0149**	**0.0140**	**1.0026**	**6.7400e-003**	**1.0094**	**0.2710**	**6.2800e-003**	**0.2773**	**0.0000**	**1,299.4339**	**1,299.4339**	**0.0723**	**0.0000**	**1,301.2422**

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	0.1785	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**

3.5 Building Construction - 2027

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	0.0534	2.4433	0.3353	8.0000e-003	0.2007	2.3100e-003	0.2030	0.0580	2.2000e-003	0.0602	0.0000	760.7686	760.7686	0.0646	0.0000	762.3827
Worker	0.2836	0.1377	1.6205	6.2000e-003	0.8378	4.4100e-003	0.8422	0.2227	4.0600e-003	0.2267	0.0000	560.9523	560.9523	9.2300e-003	0.0000	561.1832
Total	**0.3370**	**2.5810**	**1.9557**	**0.0142**	**1.0385**	**6.7200e-003**	**1.0452**	**0.2806**	**6.2600e-003**	**0.2869**	**0.0000**	**1,321.7209**	**1,321.7209**	**0.0738**	**0.0000**	**1,323.5658**

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**

3.5 Building Construction - 2027

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	0.0534	2.4433	0.3353	8.0000e-003	0.2007	2.3100e-003	0.2030	0.0580	2.2000e-003	0.0602	0.0000	760.7686	760.7686	0.0646	0.0000	762.3827
Worker	0.2836	0.1377	1.6205	6.2000e-003	0.8378	4.4100e-003	0.8422	0.2227	4.0600e-003	0.2267	0.0000	560.9523	560.9523	9.2300e-003	0.0000	561.1832
Total	**0.3370**	**2.5810**	**1.9557**	**0.0142**	**1.0385**	**6.7200e-003**	**1.0452**	**0.2806**	**6.2600e-003**	**0.2869**	**0.0000**	**1,321.7209**	**1,321.7209**	**0.0738**	**0.0000**	**1,323.5658**

3.5 Building Construction - 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	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4953**	**301.4953**	**0.0709**	**0.0000**	**303.2671**

3.5 Building Construction - 2028

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	0.0525	2.4194	0.3268	7.9300e-003	0.1999	2.2700e-003	0.2022	0.0578	2.1700e-003	0.0599	0.0000	754.4555	754.4555	0.0639	0.0000	756.0519
Worker	0.2648	0.1254	1.5086	5.9800e-003	0.8346	4.1000e-003	0.8387	0.2218	3.7700e-003	0.2256	0.0000	541.3284	541.3284	8.4000e-003	0.0000	541.5383
Total	**0.3173**	**2.5448**	**1.8354**	**0.0139**	**1.0345**	**6.3700e-003**	**1.0409**	**0.2796**	**5.9400e-003**	**0.2855**	**0.0000**	**1,295.7839**	**1,295.7839**	**0.0723**	**0.0000**	**1,297.5902**

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	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	**0.1778**	**1.6211**	**2.0910**	**3.5000e-003**		**0.0686**	**0.0686**		**0.0645**	**0.0645**	**0.0000**	**301.4949**	**301.4949**	**0.0709**	**0.0000**	**303.2667**

3.5 Building Construction - 2028

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	0.0525	2.4194	0.3268	7.9300e-003	0.1999	2.2700e-003	0.2022	0.0578	2.1700e-003	0.0599	0.0000	754.4555	754.4555	0.0639	0.0000	756.0519
Worker	0.2648	0.1254	1.5086	5.9800e-003	0.8346	4.1000e-003	0.8387	0.2218	3.7700e-003	0.2256	0.0000	541.3284	541.3284	8.4000e-003	0.0000	541.5383
Total	**0.3173**	**2.5448**	**1.8354**	**0.0139**	**1.0345**	**6.3700e-003**	**1.0409**	**0.2796**	**5.9400e-003**	**0.2855**	**0.0000**	**1,295.7839**	**1,295.7839**	**0.0723**	**0.0000**	**1,297.5902**

3.5 Building Construction - 2029

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**

3.5 Building Construction - 2029

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	0.0520	2.4139	0.3216	7.9300e-003	0.2007	2.2600e-003	0.2029	0.0580	2.1600e-003	0.0601	0.0000	754.3493	754.3493	0.0635	0.0000	755.9366
Worker	0.2471	0.1151	1.4146	5.8300e-003	0.8378	3.8400e-003	0.8416	0.2227	3.5300e-003	0.2262	0.0000	527.8882	527.8882	7.6800e-003	0.0000	528.0801
Total	**0.2991**	**2.5290**	**1.7362**	**0.0138**	**1.0385**	**6.1000e-003**	**1.0446**	**0.2806**	**5.6900e-003**	**0.2863**	**0.0000**	**1,282.2374**	**1,282.2374**	**0.0712**	**0.0000**	**1,284.0168**

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**

3.5 Building Construction - 2029

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	0.0520	2.4139	0.3216	7.9300e-003	0.2007	2.2600e-003	0.2029	0.0580	2.1600e-003	0.0601	0.0000	754.3493	754.3493	0.0635	0.0000	755.9366
Worker	0.2471	0.1151	1.4146	5.8300e-003	0.8378	3.8400e-003	0.8416	0.2227	3.5300e-003	0.2262	0.0000	527.8882	527.8882	7.6800e-003	0.0000	528.0801
Total	**0.2991**	**2.5290**	**1.7362**	**0.0138**	**1.0385**	**6.1000e-003**	**1.0446**	**0.2806**	**5.6900e-003**	**0.2863**	**0.0000**	**1,282.2374**	**1,282.2374**	**0.0712**	**0.0000**	**1,284.0168**

3.5 Building Construction - 2030

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	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

3.5 Building Construction - 2030

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	0.0515	2.4011	0.3166	7.9100e-003	0.2007	2.2300e-003	0.2029	0.0580	2.1400e-003	0.0601	0.0000	751.9827	751.9827	0.0628	0.0000	753.5529
Worker	0.2286	0.1053	1.3246	5.6800e-003	0.8378	3.5800e-003	0.8414	0.2227	3.2900e-003	0.2260	0.0000	514.1821	514.1821	7.0100e-003	0.0000	514.3574
Total	**0.2801**	**2.5065**	**1.6412**	**0.0136**	**1.0385**	**5.8100e-003**	**1.0443**	**0.2806**	**5.4300e-003**	**0.2861**	**0.0000**	**1,266.1648**	**1,266.1648**	**0.0698**	**0.0000**	**1,267.9103**

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	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

3.5 Building Construction - 2030

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	0.0515	2.4011	0.3166	7.9100e-003	0.2007	2.2300e-003	0.2029	0.0580	2.1400e-003	0.0601	0.0000	751.9827	751.9827	0.0628	0.0000	753.5529
Worker	0.2286	0.1053	1.3246	5.6800e-003	0.8378	3.5800e-003	0.8414	0.2227	3.2900e-003	0.2260	0.0000	514.1821	514.1821	7.0100e-003	0.0000	514.3574
Total	**0.2801**	**2.5065**	**1.6412**	**0.0136**	**1.0385**	**5.8100e-003**	**1.0443**	**0.2806**	**5.4300e-003**	**0.2861**	**0.0000**	**1,266.1648**	**1,266.1648**	**0.0698**	**0.0000**	**1,267.9103**

3.5 Building Construction - 2031

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	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0336**	**343.0336**	**0.0138**	**0.0000**	**343.3777**

3.5 Building Construction - 2031

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	0.0510	2.3903	0.3128	7.8900e-003	0.2007	2.2100e-003	0.2029	0.0580	2.1200e-003	0.0601	0.0000	750.1800	750.1800	0.0623	0.0000	751.7376
Worker	0.2089	0.0961	1.2386	5.5400e-003	0.8378	3.3400e-003	0.8411	0.2227	3.0700e-003	0.2257	0.0000	502.1249	502.1249	6.3900e-003	0.0000	502.2845
Total	**0.2599**	**2.4863**	**1.5515**	**0.0134**	**1.0385**	**5.5500e-003**	**1.0440**	**0.2806**	**5.1900e-003**	**0.2858**	**0.0000**	**1,252.3049**	**1,252.3049**	**0.0687**	**0.0000**	**1,254.0221**

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	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	**0.1708**	**1.0355**	**2.1085**	**4.0400e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**343.0332**	**343.0332**	**0.0138**	**0.0000**	**343.3773**

3.5 Building Construction - 2031

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	0.0510	2.3903	0.3128	7.8900e-003	0.2007	2.2100e-003	0.2029	0.0580	2.1200e-003	0.0601	0.0000	750.1800	750.1800	0.0623	0.0000	751.7376
Worker	0.2089	0.0961	1.2386	5.5400e-003	0.8378	3.3400e-003	0.8411	0.2227	3.0700e-003	0.2257	0.0000	502.1249	502.1249	6.3900e-003	0.0000	502.2845
Total	**0.2599**	**2.4863**	**1.5515**	**0.0134**	**1.0385**	**5.5500e-003**	**1.0440**	**0.2806**	**5.1900e-003**	**0.2858**	**0.0000**	**1,252.3049**	**1,252.3049**	**0.0687**	**0.0000**	**1,254.0221**

3.5 Building Construction - 2032

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	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3479**	**344.3479**	**0.0138**	**0.0000**	**344.6933**

3.5 Building Construction - 2032

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	0.0509	2.3900	0.3112	7.9100e-003	0.2015	2.2000e-003	0.2037	0.0582	2.1100e-003	0.0603	0.0000	751.9424	751.9424	0.0622	0.0000	753.4966
Worker	0.1920	0.0885	1.1676	5.4500e-003	0.8410	3.1200e-003	0.8441	0.2235	2.8700e-003	0.2264	0.0000	493.4773	493.4773	5.8700e-003	0.0000	493.6240
Total	**0.2429**	**2.4785**	**1.4788**	**0.0134**	**1.0424**	**5.3200e-003**	**1.0478**	**0.2817**	**4.9800e-003**	**0.2867**	**0.0000**	**1,245.4197**	**1,245.4197**	**0.0680**	**0.0000**	**1,247.1206**

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	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	**0.1715**	**1.0394**	**2.1166**	**4.0600e-003**		**0.0194**	**0.0194**		**0.0194**	**0.0194**	**0.0000**	**344.3475**	**344.3475**	**0.0138**	**0.0000**	**344.6929**

3.5 Building Construction - 2032

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	0.0509	2.3900	0.3112	7.9100e-003	0.2015	2.2000e-003	0.2037	0.0582	2.1100e-003	0.0603	0.0000	751.9424	751.9424	0.0622	0.0000	753.4966
Worker	0.1920	0.0885	1.1676	5.4500e-003	0.8410	3.1200e-003	0.8441	0.2235	2.8700e-003	0.2264	0.0000	493.4773	493.4773	5.8700e-003	0.0000	493.6240
Total	**0.2429**	**2.4785**	**1.4788**	**0.0134**	**1.0424**	**5.3200e-003**	**1.0478**	**0.2817**	**4.9800e-003**	**0.2867**	**0.0000**	**1,245.4197**	**1,245.4197**	**0.0680**	**0.0000**	**1,247.1206**

3.5 Building Construction - 2033

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	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7193**	**341.7193**	**0.0137**	**0.0000**	**342.0621**

3.5 Building Construction - 2033

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	0.0503	2.3639	0.3067	7.8400e-003	0.1999	2.1700e-003	0.2021	0.0578	2.0700e-003	0.0598	0.0000	745.4716	745.4716	0.0612	0.0000	747.0011
Worker	0.1754	0.0811	1.0938	5.3000e-003	0.8346	2.8900e-003	0.8375	0.2218	2.6600e-003	0.2245	0.0000	480.6044	480.6044	5.3600e-003	0.0000	480.7383
Total	**0.2256**	**2.4450**	**1.4005**	**0.0131**	**1.0345**	**5.0600e-003**	**1.0395**	**0.2796**	**4.7300e-003**	**0.2843**	**0.0000**	**1,226.0760**	**1,226.0760**	**0.0665**	**0.0000**	**1,227.7394**

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	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7189**	**341.7189**	**0.0137**	**0.0000**	**342.0617**

3.5 Building Construction - 2033

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	0.0503	2.3639	0.3067	7.8400e-003	0.1999	2.1700e-003	0.2021	0.0578	2.0700e-003	0.0598	0.0000	745.4716	745.4716	0.0612	0.0000	747.0011
Worker	0.1754	0.0811	1.0938	5.3000e-003	0.8346	2.8900e-003	0.8375	0.2218	2.6600e-003	0.2245	0.0000	480.6044	480.6044	5.3600e-003	0.0000	480.7383
Total	**0.2256**	**2.4450**	**1.4005**	**0.0131**	**1.0345**	**5.0600e-003**	**1.0395**	**0.2796**	**4.7300e-003**	**0.2843**	**0.0000**	**1,226.0760**	**1,226.0760**	**0.0665**	**0.0000**	**1,227.7394**

3.5 Building Construction - 2034

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	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7193**	**341.7193**	**0.0137**	**0.0000**	**342.0621**

3.5 Building Construction - 2034

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	0.0501	2.3571	0.3048	7.8300e-003	0.1999	2.1500e-003	0.2021	0.0578	2.0600e-003	0.0598	0.0000	745.0711	745.0711	0.0608	0.0000	746.5914
Worker	0.1633	0.0758	1.0357	5.2200e-003	0.8346	2.7100e-003	0.8373	0.2218	2.4900e-003	0.2243	0.0000	472.7433	472.7433	4.9500e-003	0.0000	472.8671
Total	**0.2133**	**2.4330**	**1.3405**	**0.0131**	**1.0345**	**4.8600e-003**	**1.0393**	**0.2796**	**4.5500e-003**	**0.2841**	**0.0000**	**1,217.8144**	**1,217.8144**	**0.0658**	**0.0000**	**1,219.4585**

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	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	**0.1702**	**1.0315**	**2.1004**	**4.0200e-003**		**0.0193**	**0.0193**		**0.0193**	**0.0193**	**0.0000**	**341.7189**	**341.7189**	**0.0137**	**0.0000**	**342.0617**

3.5 Building Construction - 2034

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	0.0501	2.3571	0.3048	7.8300e-003	0.1999	2.1500e-003	0.2021	0.0578	2.0600e-003	0.0598	0.0000	745.0711	745.0711	0.0608	0.0000	746.5914
Worker	0.1633	0.0758	1.0357	5.2200e-003	0.8346	2.7100e-003	0.8373	0.2218	2.4900e-003	0.2243	0.0000	472.7433	472.7433	4.9500e-003	0.0000	472.8671
Total	**0.2133**	**2.4330**	**1.3405**	**0.0131**	**1.0345**	**4.8600e-003**	**1.0393**	**0.2796**	**4.5500e-003**	**0.2841**	**0.0000**	**1,217.8144**	**1,217.8144**	**0.0658**	**0.0000**	**1,219.4585**

3.5 Building Construction - 2035

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2035

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2035

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

3.5 Building Construction - 2036

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	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3479	344.3479	0.0128	0.0000	344.6686
Total	**0.1594**	**0.9381**	**2.1114**	**4.0600e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**344.3479**	**344.3479**	**0.0128**	**0.0000**	**344.6686**

3.5 Building Construction - 2036

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	0.0503	2.3693	0.3056	7.8900e-003	0.2015	2.1600e-003	0.2036	0.0582	2.0600e-003	0.0603	0.0000	750.5745	750.5745	0.0609	0.0000	752.0977
Worker	0.1541	0.0723	0.9943	5.1800e-003	0.8410	2.5600e-003	0.8436	0.2235	2.3500e-003	0.2259	0.0000	469.6255	469.6255	4.6500e-003	0.0000	469.7417
Total	**0.2044**	**2.4416**	**1.2999**	**0.0131**	**1.0425**	**4.7200e-003**	**1.0472**	**0.2817**	**4.4100e-003**	**0.2861**	**0.0000**	**1,220.2000**	**1,220.2000**	**0.0656**	**0.0000**	**1,221.8394**

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	0.1594	0.9381	2.1114	4.0600e-003		0.0118	0.0118		0.0118	0.0118	0.0000	344.3475	344.3475	0.0128	0.0000	344.6682
Total	**0.1594**	**0.9381**	**2.1114**	**4.0600e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**344.3475**	**344.3475**	**0.0128**	**0.0000**	**344.6682**

3.5 Building Construction - 2036

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	0.0503	2.3693	0.3056	7.8900e-003	0.2015	2.1600e-003	0.2036	0.0582	2.0600e-003	0.0603	0.0000	750.5745	750.5745	0.0609	0.0000	752.0977
Worker	0.1541	0.0723	0.9943	5.1800e-003	0.8410	2.5600e-003	0.8436	0.2235	2.3500e-003	0.2259	0.0000	469.6255	469.6255	4.6500e-003	0.0000	469.7417
Total	**0.2044**	**2.4416**	**1.2999**	**0.0131**	**1.0425**	**4.7200e-003**	**1.0472**	**0.2817**	**4.4100e-003**	**0.2861**	**0.0000**	**1,220.2000**	**1,220.2000**	**0.0656**	**0.0000**	**1,221.8394**

3.5 Building Construction - 2037

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2037

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2037

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

3.5 Building Construction - 2038

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0336	343.0336	0.0128	0.0000	343.3530
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0336**	**343.0336**	**0.0128**	**0.0000**	**343.3530**

3.5 Building Construction - 2038

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

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	0.1588	0.9346	2.1034	4.0400e-003		0.0118	0.0118		0.0118	0.0118	0.0000	343.0332	343.0332	0.0128	0.0000	343.3526
Total	**0.1588**	**0.9346**	**2.1034**	**4.0400e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**343.0332**	**343.0332**	**0.0128**	**0.0000**	**343.3526**

3.5 Building Construction - 2038

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	0.0501	2.3602	0.3044	7.8600e-003	0.2007	2.1500e-003	0.2028	0.0580	2.0600e-003	0.0600	0.0000	747.7097	747.7097	0.0607	0.0000	749.2271
Worker	0.1536	0.0720	0.9906	5.1600e-003	0.8378	2.5500e-003	0.8403	0.2227	2.3400e-003	0.2250	0.0000	467.8330	467.8330	4.6300e-003	0.0000	467.9488
Total	**0.2037**	**2.4322**	**1.2950**	**0.0130**	**1.0385**	**4.7000e-003**	**1.0432**	**0.2807**	**4.4000e-003**	**0.2851**	**0.0000**	**1,215.5427**	**1,215.5427**	**0.0653**	**0.0000**	**1,217.1759**

3.5 Building Construction - 2039

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	0.1582	0.9310	2.0953	4.0200e-003		0.0118	0.0118		0.0118	0.0118	0.0000	341.7193	341.7193	0.0127	0.0000	342.0375
Total	**0.1582**	**0.9310**	**2.0953**	**4.0200e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**341.7193**	**341.7193**	**0.0127**	**0.0000**	**342.0375**

3.5 Building Construction - 2039

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	0.0499	2.3512	0.3032	7.8300e-003	0.1999	2.1400e-003	0.2021	0.0578	2.0500e-003	0.0598	0.0000	744.8450	744.8450	0.0605	0.0000	746.3565
Worker	0.1530	0.0717	0.9868	5.1400e-003	0.8346	2.5400e-003	0.8371	0.2218	2.3300e-003	0.2242	0.0000	466.0405	466.0405	4.6100e-003	0.0000	466.1559
Total	**0.2029**	**2.4229**	**1.2900**	**0.0130**	**1.0345**	**4.6800e-003**	**1.0392**	**0.2796**	**4.3800e-003**	**0.2840**	**0.0000**	**1,210.8855**	**1,210.8855**	**0.0651**	**0.0000**	**1,212.5124**

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	0.1582	0.9310	2.0953	4.0200e-003		0.0118	0.0118		0.0118	0.0118	0.0000	341.7189	341.7189	0.0127	0.0000	342.0371
Total	**0.1582**	**0.9310**	**2.0953**	**4.0200e-003**		**0.0118**	**0.0118**		**0.0118**	**0.0118**	**0.0000**	**341.7189**	**341.7189**	**0.0127**	**0.0000**	**342.0371**

3.5 Building Construction - 2039

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	0.0499	2.3512	0.3032	7.8300e-003	0.1999	2.1400e-003	0.2021	0.0578	2.0500e-003	0.0598	0.0000	744.8450	744.8450	0.0605	0.0000	746.3565
Worker	0.1530	0.0717	0.9868	5.1400e-003	0.8346	2.5400e-003	0.8371	0.2218	2.3300e-003	0.2242	0.0000	466.0405	466.0405	4.6100e-003	0.0000	466.1559
Total	**0.2029**	**2.4229**	**1.2900**	**0.0130**	**1.0345**	**4.6800e-003**	**1.0392**	**0.2796**	**4.3800e-003**	**0.2840**	**0.0000**	**1,210.8855**	**1,210.8855**	**0.0651**	**0.0000**	**1,212.5124**

3.6 Paving - 2037

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	0.0165	0.0707	0.2294	4.1000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	34.9443	34.9443	1.3400e-003	0.0000	34.9779
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.0707**	**0.2294**	**4.1000e-004**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**	**0.0000**	**34.9443**	**34.9443**	**1.3400e-003**	**0.0000**	**34.9779**

3.6 Paving - 2037

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	3.2000e-004	1.5000e-004	2.0600e-003	1.0000e-005	1.7400e-003	1.0000e-005	1.7400e-003	4.6000e-004	0.0000	4.7000e-004	0.0000	0.9710	0.9710	1.0000e-005	0.0000	0.9713
Total	**3.2000e-004**	**1.5000e-004**	**2.0600e-003**	**1.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**0.0000**	**4.7000e-004**	**0.0000**	**0.9710**	**0.9710**	**1.0000e-005**	**0.0000**	**0.9713**

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	0.0165	0.0707	0.2294	4.1000e-004		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	34.9443	34.9443	1.3400e-003	0.0000	34.9779
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.0707**	**0.2294**	**4.1000e-004**		**2.7200e-003**	**2.7200e-003**		**2.7200e-003**	**2.7200e-003**	**0.0000**	**34.9443**	**34.9443**	**1.3400e-003**	**0.0000**	**34.9779**

3.6 Paving - 2037

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	3.2000e-004	1.5000e-004	2.0600e-003	1.0000e-005	1.7400e-003	1.0000e-005	1.7400e-003	4.6000e-004	0.0000	4.7000e-004	0.0000	0.9710	0.9710	1.0000e-005	0.0000	0.9713
Total	**3.2000e-004**	**1.5000e-004**	**2.0600e-003**	**1.0000e-005**	**1.7400e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**0.0000**	**4.7000e-004**	**0.0000**	**0.9710**	**0.9710**	**1.0000e-005**	**0.0000**	**0.9713**

3.6 Paving - 2038

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	0.1488	0.6363	2.0646	3.6600e-003		0.0245	0.0245		0.0245	0.0245	0.0000	314.4987	314.4987	0.0121	0.0000	314.8013
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1488**	**0.6363**	**2.0646**	**3.6600e-003**		**0.0245**	**0.0245**		**0.0245**	**0.0245**	**0.0000**	**314.4987**	**314.4987**	**0.0121**	**0.0000**	**314.8013**

3.6 Paving - 2038

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	2.8700e-003	1.3400e-003	0.0185	1.0000e-004	0.0157	5.0000e-005	0.0157	4.1600e-003	4.0000e-005	4.2000e-003	0.0000	8.7391	8.7391	9.0000e-005	0.0000	8.7413
Total	**2.8700e-003**	**1.3400e-003**	**0.0185**	**1.0000e-004**	**0.0157**	**5.0000e-005**	**0.0157**	**4.1600e-003**	**4.0000e-005**	**4.2000e-003**	**0.0000**	**8.7391**	**8.7391**	**9.0000e-005**	**0.0000**	**8.7413**

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	0.1488	0.6363	2.0645	3.6600e-003		0.0245	0.0245		0.0245	0.0245	0.0000	314.4983	314.4983	0.0121	0.0000	314.8009
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1488**	**0.6363**	**2.0645**	**3.6600e-003**		**0.0245**	**0.0245**		**0.0245**	**0.0245**	**0.0000**	**314.4983**	**314.4983**	**0.0121**	**0.0000**	**314.8009**

3.6 Paving - 2038

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	2.8700e-003	1.3400e-003	0.0185	1.0000e-004	0.0157	5.0000e-005	0.0157	4.1600e-003	4.0000e-005	4.2000e-003	0.0000	8.7391	8.7391	9.0000e-005	0.0000	8.7413
Total	**2.8700e-003**	**1.3400e-003**	**0.0185**	**1.0000e-004**	**0.0157**	**5.0000e-005**	**0.0157**	**4.1600e-003**	**4.0000e-005**	**4.2000e-003**	**0.0000**	**8.7391**	**8.7391**	**9.0000e-005**	**0.0000**	**8.7413**

3.6 Paving - 2039

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	0.1483	0.6339	2.0566	3.6500e-003		0.0244	0.0244		0.0244	0.0244	0.0000	313.2937	313.2937	0.0121	0.0000	313.5951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1483**	**0.6339**	**2.0566**	**3.6500e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**	**0.0000**	**313.2937**	**313.2937**	**0.0121**	**0.0000**	**313.5951**

3.6 Paving - 2039

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	2.8600e-003	1.3400e-003	0.0184	1.0000e-004	0.0156	5.0000e-005	0.0156	4.1400e-003	4.0000e-005	4.1900e-003	0.0000	8.7056	8.7056	9.0000e-005	0.0000	8.7078
Total	**2.8600e-003**	**1.3400e-003**	**0.0184**	**1.0000e-004**	**0.0156**	**5.0000e-005**	**0.0156**	**4.1400e-003**	**4.0000e-005**	**4.1900e-003**	**0.0000**	**8.7056**	**8.7056**	**9.0000e-005**	**0.0000**	**8.7078**

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	0.1483	0.6339	2.0566	3.6500e-003		0.0244	0.0244		0.0244	0.0244	0.0000	313.2933	313.2933	0.0121	0.0000	313.5947
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1483**	**0.6339**	**2.0566**	**3.6500e-003**		**0.0244**	**0.0244**		**0.0244**	**0.0244**	**0.0000**	**313.2933**	**313.2933**	**0.0121**	**0.0000**	**313.5947**

3.6 Paving - 2039

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	2.8600e-003	1.3400e-003	0.0184	1.0000e-004	0.0156	5.0000e-005	0.0156	4.1400e-003	4.0000e-005	4.1900e-003	0.0000	8.7056	8.7056	9.0000e-005	0.0000	8.7078
Total	**2.8600e-003**	**1.3400e-003**	**0.0184**	**1.0000e-004**	**0.0156**	**5.0000e-005**	**0.0156**	**4.1400e-003**	**4.0000e-005**	**4.1900e-003**	**0.0000**	**8.7056**	**8.7056**	**9.0000e-005**	**0.0000**	**8.7078**

3.7 Architectural Coating - 2037

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					
Archit. Coating	1.3818					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0110	0.0260	4.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	3.7022	3.7022	1.4000e-004	0.0000	3.7056
Total	**1.3835**	**0.0110**	**0.0260**	**4.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**3.7022**	**3.7022**	**1.4000e-004**	**0.0000**	**3.7056**

3.7 Architectural Coating - 2037

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	3.4200e-003	1.6000e-003	0.0221	1.2000e-004	0.0187	6.0000e-005	0.0187	4.9600e-003	5.0000e-005	5.0100e-003	0.0000	10.4222	10.4222	1.0000e-004	0.0000	10.4248
Total	**3.4200e-003**	**1.6000e-003**	**0.0221**	**1.2000e-004**	**0.0187**	**6.0000e-005**	**0.0187**	**4.9600e-003**	**5.0000e-005**	**5.0100e-003**	**0.0000**	**10.4222**	**10.4222**	**1.0000e-004**	**0.0000**	**10.4248**

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	1.3818					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0110	0.0260	4.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	3.7022	3.7022	1.4000e-004	0.0000	3.7056
Total	**1.3835**	**0.0110**	**0.0260**	**4.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**3.7022**	**3.7022**	**1.4000e-004**	**0.0000**	**3.7056**

3.7 Architectural Coating - 2037

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	3.4200e-003	1.6000e-003	0.0221	1.2000e-004	0.0187	6.0000e-005	0.0187	4.9600e-003	5.0000e-005	5.0100e-003	0.0000	10.4222	10.4222	1.0000e-004	0.0000	10.4248
Total	**3.4200e-003**	**1.6000e-003**	**0.0221**	**1.2000e-004**	**0.0187**	**6.0000e-005**	**0.0187**	**4.9600e-003**	**5.0000e-005**	**5.0100e-003**	**0.0000**	**10.4222**	**10.4222**	**1.0000e-004**	**0.0000**	**10.4248**

3.7 Architectural Coating - 2038

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					
Archit. Coating	12.4363					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	**12.4516**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3200**	**33.3200**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2038

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	0.0308	0.0144	0.1986	1.0400e-003	0.1680	5.1000e-004	0.1685	0.0447	4.7000e-004	0.0451	0.0000	93.7996	93.7996	9.3000e-004	0.0000	93.8229
Total	**0.0308**	**0.0144**	**0.1986**	**1.0400e-003**	**0.1680**	**5.1000e-004**	**0.1685**	**0.0447**	**4.7000e-004**	**0.0451**	**0.0000**	**93.7996**	**93.7996**	**9.3000e-004**	**0.0000**	**93.8229**

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	12.4363					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	**12.4516**	**0.0989**	**0.2342**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.3199**	**33.3199**	**1.2300e-003**	**0.0000**	**33.3507**

3.7 Architectural Coating - 2038

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	0.0308	0.0144	0.1986	1.0400e-003	0.1680	5.1000e-004	0.1685	0.0447	4.7000e-004	0.0451	0.0000	93.7996	93.7996	9.3000e-004	0.0000	93.8229
Total	**0.0308**	**0.0144**	**0.1986**	**1.0400e-003**	**0.1680**	**5.1000e-004**	**0.1685**	**0.0447**	**4.7000e-004**	**0.0451**	**0.0000**	**93.7996**	**93.7996**	**9.3000e-004**	**0.0000**	**93.8229**

3.7 Architectural Coating - 2039

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					
Archit. Coating	12.3886					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2230
Total	**12.4039**	**0.0985**	**0.2333**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.1923**	**33.1923**	**1.2300e-003**	**0.0000**	**33.2230**

3.7 Architectural Coating - 2039

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	0.0307	0.0144	0.1978	1.0300e-003	0.1673	5.1000e-004	0.1678	0.0445	4.7000e-004	0.0449	0.0000	93.4403	93.4403	9.3000e-004	0.0000	93.4634
Total	**0.0307**	**0.0144**	**0.1978**	**1.0300e-003**	**0.1673**	**5.1000e-004**	**0.1678**	**0.0445**	**4.7000e-004**	**0.0449**	**0.0000**	**93.4403**	**93.4403**	**9.3000e-004**	**0.0000**	**93.4634**

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	12.3886					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0153	0.0985	0.2333	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.1923	33.1923	1.2300e-003	0.0000	33.2229
Total	**12.4039**	**0.0985**	**0.2333**	**3.9000e-004**		**1.2900e-003**	**1.2900e-003**		**1.2900e-003**	**1.2900e-003**	**0.0000**	**33.1923**	**33.1923**	**1.2300e-003**	**0.0000**	**33.2229**

3.7 Architectural Coating - 2039

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	0.0307	0.0144	0.1978	1.0300e-003	0.1673	5.1000e-004	0.1678	0.0445	4.7000e-004	0.0449	0.0000	93.4403	93.4403	9.3000e-004	0.0000	93.4634
Total	**0.0307**	**0.0144**	**0.1978**	**1.0300e-003**	**0.1673**	**5.1000e-004**	**0.1678**	**0.0445**	**4.7000e-004**	**0.0449**	**0.0000**	**93.4403**	**93.4403**	**9.3000e-004**	**0.0000**	**93.4634**

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	28.3440	660.5621	145.2959	1.3060	41.6026	0.3131	41.9157	11.2028	0.2929	11.4957	0.0000	123,203.0557	123,203.0557	27.3695	0.0000	123,887.2933
Unmitigated	28.3440	660.5621	145.2959	1.3060	41.6026	0.3131	41.9157	11.2028	0.2929	11.4957	0.0000	123,203.0557	123,203.0557	27.3695	0.0000	123,887.2933

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	298,537.00	298,537.00	298537.00	108,667,468	108,667,468
General Office Building	0.00	0.00	0.00		
Government Office Building	0.00	0.00	0.00		
High School	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Industrial Park	0.00	0.00	0.00		
Medical Office Building	0.00	0.00	0.00		
Single Family Housing	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	298,537.00	298,537.00	298,537.00	108,667,468	108,667,468

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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	1.00	0.00	0.00	100.00	0.00	0.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government Office Building	9.50	7.30	7.30	33.00	62.00	5.00	50	34	16
High School	9.50	7.30	7.30	77.80	17.20	5.00	75	19	6
High Turnover (Sit Down	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10
Single Family Housing	10.80	7.30	7.50	48.40	15.90	35.70	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
General Office Building	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
Government Office Building	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
High School	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
High Turnover (Sit Down Restaurant)	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
Industrial Park	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
Medical Office Building	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
Single Family Housing	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395
Strip Mall	0.520917	0.027990	0.176880	0.088790	0.007604	0.003152	0.034112	0.131442	0.002311	0.001064	0.004434	0.000910	0.000395

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	669.9240	669.9240	0.0270	6.7400e-003	672.6062
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	669.9240	669.9240	0.0270	6.7400e-003	672.6062
NaturalGas Mitigated	0.2766	2.4093	1.3411	0.0151		0.1911	0.1911		0.1911	0.1911	0.0000	2,737.2302	2,737.2302	0.0525	0.0502	2,753.4962
NaturalGas Unmitigated	0.2766	2.4093	1.3411	0.0151		0.1911	0.1911		0.1911	0.1911	0.0000	2,737.2302	2,737.2302	0.0525	0.0502	2,753.4962

5.2 Energy by Land Use - NaturalGas

Unmitigated

	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 Low Rise	4.08544e+006	0.0220	0.1883	0.0801	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	218.0145	218.0145	4.1800e-003	4.0000e-003	219.3100
General Office Building	560628	3.0200e-003	0.0275	0.0231	1.6000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9173	29.9173	5.7000e-004	5.5000e-004	30.0950
Government Office Building	198882	1.0700e-003	9.7500e-003	8.1900e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6131	10.6131	2.0000e-004	1.9000e-004	10.6762
High School	1.19147e+006	6.4200e-003	0.0584	0.0491	3.5000e-004		4.4400e-003	4.4400e-003		4.4400e-003	4.4400e-003	0.0000	63.5814	63.5814	1.2200e-003	1.1700e-003	63.9592
High Turnover (Sit Down Restaurant)	1.02075e+007	0.0550	0.5004	0.4203	3.0000e-003		0.0380	0.0380		0.0380	0.0380	0.0000	544.7097	544.7097	0.0104	9.9900e-003	547.9466
Industrial Park	1.305e+006	7.0400e-003	0.0640	0.0537	3.8000e-004		4.8600e-003	4.8600e-003		4.8600e-003	4.8600e-003	0.0000	69.6398	69.6398	1.3300e-003	1.2800e-003	70.0536
Medical Office Building	732105	3.9500e-003	0.0359	0.0302	2.2000e-004		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	39.0679	39.0679	7.5000e-004	7.2000e-004	39.3001
Single Family Housing	3.16619e+007	0.1707	1.4589	0.6208	9.3100e-003		0.1180	0.1180		0.1180	0.1180	0.0000	1,689.5988	1,689.5988	0.0324	0.0310	1,699.6392
Strip Mall	1.35088e+006	7.2800e-003	0.0662	0.0556	4.0000e-004		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	72.0878	72.0878	1.3800e-003	1.3200e-003	72.5162
Total		**0.2766**	**2.4093**	**1.3411**	**0.0151**		**0.1911**	**0.1911**		**0.1911**	**0.1911**	**0.0000**	**2,737.2302**	**2,737.2302**	**0.0525**	**0.0502**	**2,753.4962**

5.2 Energy by Land Use - NaturalGas

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 Low Rise	4.08544e+006	0.0220	0.1883	0.0801	1.2000e-003		0.0152	0.0152		0.0152	0.0152	0.0000	218.0145	218.0145	4.1800e-003	4.0000e-003	219.3100
General Office Building	560628	3.0200e-003	0.0275	0.0231	1.6000e-004		2.0900e-003	2.0900e-003		2.0900e-003	2.0900e-003	0.0000	29.9173	29.9173	5.7000e-004	5.5000e-004	30.0950
Government Office Building	198882	1.0700e-003	9.7500e-003	8.1900e-003	6.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	10.6131	10.6131	2.0000e-004	1.9000e-004	10.6762
High School	1.19147e+006	6.4200e-003	0.0584	0.0491	3.5000e-004		4.4400e-003	4.4400e-003		4.4400e-003	4.4400e-003	0.0000	63.5814	63.5814	1.2200e-003	1.1700e-003	63.9592
High Turnover (Sit Down Restaurant)	1.02075e+007	0.0550	0.5004	0.4203	3.0000e-003		0.0380	0.0380		0.0380	0.0380	0.0000	544.7097	544.7097	0.0104	9.9900e-003	547.9466
Industrial Park	1.305e+006	7.0400e-003	0.0640	0.0537	3.8000e-004		4.8600e-003	4.8600e-003		4.8600e-003	4.8600e-003	0.0000	69.6398	69.6398	1.3300e-003	1.2800e-003	70.0536
Medical Office Building	732105	3.9500e-003	0.0359	0.0302	2.2000e-004		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	39.0679	39.0679	7.5000e-004	7.2000e-004	39.3001
Single Family Housing	3.16619e+007	0.1707	1.4589	0.6208	9.3100e-003		0.1180	0.1180		0.1180	0.1180	0.0000	1,689.5988	1,689.5988	0.0324	0.0310	1,699.6392
Strip Mall	1.35088e+006	7.2800e-003	0.0662	0.0556	4.0000e-004		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	72.0878	72.0878	1.3800e-003	1.3200e-003	72.5162
Total		**0.2766**	**2.4093**	**1.3411**	**0.0151**		**0.1911**	**0.1911**		**0.1911**	**0.1911**	**0.0000**	**2,737.2302**	**2,737.2302**	**0.0525**	**0.0502**	**2,753.4962**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.33776e+006	60.3217	2.4300e-003	6.1000e-004	60.5632
General Office Building	357857	16.1363	6.5000e-004	1.6000e-004	16.2010
Government Office Building	126949	5.7243	2.3000e-004	6.0000e-005	5.7473
High School	333099	15.0200	6.0000e-004	1.5000e-004	15.0801
High Turnover (Sit Down Restaurant)	1.31026e+006	59.0815	2.3800e-003	5.9000e-004	59.3181
Industrial Park	912000	41.1236	1.6500e-003	4.1000e-004	41.2882
Medical Office Building	467313	21.0719	8.5000e-004	2.1000e-004	21.1563
Single Family Housing	9.06358e+006	408.6917	0.0164	4.1100e-003	410.3279
Strip Mall	948138	42.7531	1.7200e-003	4.3000e-004	42.9242
Total		**669.9240**	**0.0270**	**6.7300e-003**	**672.6062**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.33776e+006	60.3217	2.4300e-003	6.1000e-004	60.5632
General Office Building	357857	16.1363	6.5000e-004	1.6000e-004	16.2010
Government Office Building	126949	5.7243	2.3000e-004	6.0000e-005	5.7473
High School	333099	15.0200	6.0000e-004	1.5000e-004	15.0801
High Turnover (Sit Down Restaurant)	1.31026e+006	59.0815	2.3800e-003	5.9000e-004	59.3181
Industrial Park	912000	41.1236	1.6500e-003	4.1000e-004	41.2882
Medical Office Building	467313	21.0719	8.5000e-004	2.1000e-004	21.1563
Single Family Housing	9.06358e+006	408.6917	0.0164	4.1100e-003	410.3279
Strip Mall	948138	42.7531	1.7200e-003	4.3000e-004	42.9242
Total		**669.9240**	**0.0270**	**6.7300e-003**	**672.6062**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	22.7459	1.9307	87.4425	0.2525		12.5233	12.5233		12.5233	12.5233	1,662.5294	668.0121	2,330.5415	7.8018	0.0119	2,529.1361
Unmitigated	22.7459	1.9307	87.4425	0.2525		12.5233	12.5233		12.5233	12.5233	1,662.5294	668.0121	2,330.5415	7.8018	0.0119	2,529.1361

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	2.6207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.4466	1.8027	76.3498	0.2519		12.4615	12.4615		12.4615	12.4615	1,662.5294	649.8111	2,312.3405	7.7844	0.0119	2,510.5016
Landscaping	0.3320	0.1280	11.0927	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.2010	18.2010	0.0173	0.0000	18.6344
Total	**22.7460**	**1.9307**	**87.4425**	**0.2525**		**12.5233**	**12.5233**		**12.5233**	**12.5233**	**1,662.5294**	**668.0121**	**2,330.5415**	**7.8018**	**0.0119**	**2,529.1361**

6.2 Area by SubCategory

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	2.6207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	11.3467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.4466	1.8027	76.3498	0.2519		12.4615	12.4615		12.4615	12.4615	1,662.5294	649.8111	2,312.3405	7.7844	0.0119	2,510.5016
Landscaping	0.3320	0.1280	11.0927	5.9000e-004		0.0618	0.0618		0.0618	0.0618	0.0000	18.2010	18.2010	0.0173	0.0000	18.6344
Total	**22.7460**	**1.9307**	**87.4425**	**0.2525**		**12.5233**	**12.5233**		**12.5233**	**12.5233**	**1,662.5294**	**668.0121**	**2,330.5415**	**7.8018**	**0.0119**	**2,529.1361**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	104.8212	5.3529	0.1269	276.4525
Unmitigated	104.8212	5.3529	0.1269	276.4525

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	18.8295 / 11.8708	12.4414	0.6138	0.0146	32.1236
General Office Building	7.63544 / 4.67979	5.0239	0.2489	5.9000e-003	13.0050
Government Office Building	3.02757 / 1.85561	1.9921	0.0987	2.3400e-003	5.1567
High School	1.57556 / 4.05144	1.5237	0.0514	1.2200e-003	3.1725
High Turnover (Sit Down Restaurant)	14.7244 / 0.939857	8.4123	0.4800	0.0114	23.7982
Industrial Park	23.125 / 0	12.9788	0.7538	0.0179	37.1417
Medical Office Building	7.03946 / 1.34085	4.1625	0.2295	5.4400e-003	11.5187
Single Family Housing	78.9015 / 49.7423	52.1334	2.5721	0.0610	134.6078
Strip Mall	9.35166 / 5.73166	6.1531	0.3049	7.2300e-003	15.9282
Total		**104.8212**	**5.3529**	**0.1269**	**276.4525**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	18.8295 / 11.8708	12.4414	0.6138	0.0146	32.1236
General Office Building	7.63544 / 4.67979	5.0239	0.2489	5.9000e-003	13.0050
Government Office Building	3.02757 / 1.85561	1.9921	0.0987	2.3400e-003	5.1567
High School	1.57556 / 4.05144	1.5237	0.0514	1.2200e-003	3.1725
High Turnover (Sit Down Restaurant)	14.7244 / 0.939857	8.4123	0.4800	0.0114	23.7982
Industrial Park	23.125 / 0	12.9788	0.7538	0.0179	37.1417
Medical Office Building	7.03946 / 1.34085	4.1625	0.2295	5.4400e-003	11.5187
Single Family Housing	78.9015 / 49.7423	52.1334	2.5721	0.0610	134.6078
Strip Mall	9.35166 / 5.73166	6.1531	0.3049	7.2300e-003	15.9282
Total		**104.8212**	**5.3529**	**0.1269**	**276.4525**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	658.3423	38.9069	0.0000	1,631.0152
Unmitigated	658.3423	38.9069	0.0000	1,631.0152

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	195.15	39.6137	2.3411	0.0000	98.1412
General Office Building	264.99	53.7906	3.1789	0.0000	133.2639
Government Office Building	66.25	13.4482	0.7948	0.0000	33.3172
High School	287.07	58.2726	3.4438	0.0000	144.3679
High Turnover (Sit Down Restaurant)	463.73	94.1330	5.5631	0.0000	233.2105
Industrial Park	220.83	44.8265	2.6492	0.0000	111.0557
Medical Office Building	375.4	76.2028	4.5035	0.0000	188.7892
Single Family Housing	817.73	165.9918	9.8098	0.0000	411.2377
Strip Mall	552.06	112.0632	6.6227	0.0000	277.6318
Total		**658.3423**	**38.9069**	**0.0000**	**1,631.0152**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	195.15	39.6137	2.3411	0.0000	98.1412
General Office Building	264.99	53.7906	3.1789	0.0000	133.2639
Government Office Building	66.25	13.4482	0.7948	0.0000	33.3172
High School	287.07	58.2726	3.4438	0.0000	144.3679
High Turnover (Sit Down Restaurant)	463.73	94.1330	5.5631	0.0000	233.2105
Industrial Park	220.83	44.8265	2.6492	0.0000	111.0557
Medical Office Building	375.4	76.2028	4.5035	0.0000	188.7892
Single Family Housing	817.73	165.9918	9.8098	0.0000	411.2377
Strip Mall	552.06	112.0632	6.6227	0.0000	277.6318
Total		**658.3423**	**38.9069**	**0.0000**	**1,631.0152**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Resources

2040 General Plan Special Status Species List

Scientific Name Common Name	Status	Habitat Requirements
Plants and Lichens		
Atriplex cordulata var. *cordulata* heartscale	None/None G3T2/S2 1B.2	Chenopod scrub, valley and foothill grassland, meadows and seeps. Alkaline flats and scalds in the Central Valley, sandy soils. 3-275 m. annual herb. Blooms Apr-Oct
Atriplex minuscula lesser saltscale	None/None G2/S2 1B.1	Chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy, alkaline soils. 0-225 m. annual herb. Blooms May-Oct
Chloropyron palmatum palmate-bracted bird's-beak	Endangered/Endangered G1/S1 1B.1	Chenopod scrub, valley and foothill grassland. Usually on Pescadero silty clay which is alkaline, with Distichlis, Frankenia, etc. 5-155 m. annual herb (hemiparasitic). Blooms May-Oct
Delphinium recurvatum recurved larkspur	None/None G2?/S2? 1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland. On alkaline soils; often in valley saltbush or valley chenopod scrub. 3-790 m. perennial herb. Blooms Mar-Jun
Eriastrum hooveri Hoover's eriastrum	Delisted/None G3/S3 4.2	Chenopod scrub, valley and foothill grassland, pinyon and juniper woodland. On sparsely vegetated alkaline alluvial fans; also in the Temblor Range on sandy soils. 50-915 m. annual herb. Blooms Mar-Jul
Puccinellia simplex California alkali grass	None/None G3/S2 1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. 1-915 m. annual herb. Blooms Mar-May
Fish		
Hypomesus trasnspacificus delta smelt	Threatened/Endangered G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.
Invertebrates		
Branchinecta lynchi vernal pool fairy shrimp	Threatened/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
Amphibians		
Ambystoma californiense California tiger salamander	Threatened/Threatened G2G3/S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.
Rana draytonii California red-legged frog	Threatened/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.

Scientific Name Common Name	Status	Habitat Requirements
Reptiles		
Gambelia silus blunt-nosed leopard lizard	Endangered/Endangered G1/S1 FP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.
Thamnophis gigas giant gartersnake	Threatened/Threatened G2/S2	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California.
Birds		
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
Buteo swainsoni Swainson's hawk	None/Threatened G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
Mammals		
Dipodomys nitratoides exilis Fresno kangaroo rat	Endangered/Endangered G3TH/SH	Alkali sink-open grassland habitats in western Fresno County. Bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds around shrubs and grasses.
Vulpes macrotis mutica San Joaquin kit fox	Endangered/Threatened G4T2/S2	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.

Regional Vicinity refers to within a 9-quad search radius of site.

FT = Federally Threatened
FC = Federal Candidate Species
FE = Federally Endangered
FS=Federally Sensitive
SE = State Endangered
ST = State Threatened
SR = State Rare
SS=State Sensitive

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3

SC = CDFW Species of Special Concern

FP = Fully Protected

WL = Watch List

Appendix C

Energy

EMFAC2014 (v1.0.7) Emissions Inventory
Region Type: County
Region: Fresno
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC2011 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

| Region | CalYr | VehicleClass | MdlYr | Speed | Fuel | Population | VMT | Trips | ROG_RUNEX | ROG_IDLE | ROG_STRE | ROG_DIUR | ROG_HTSK | ROG_RUN | ROG_REST | ROG_TOTEX | TOG_RUNEX | TOG_IDLE | TOG_STRE | TOG_DIUR | TOG_HTSK | TOG_RUN | TOG_REST | TOG_TOTEX | CO_RUNEX | CO_IDLE | CO_STREC | CO_TOTEX | NOx_RUNEX | NOx_IDLE | NOx_STRE | NOx_TOTEX | CO2_RUNEX | CO2_IDLE | CO2_STRE | CO2_TOTEX | PM10_RUNE | PM10_TOTEX | PM10_PMBW | PM10_TIRE | PM25_RUNE | PM25_TOTEX | PM25_PMBW | PM25_TIRE | PHEV_TOG | PHEV_TOTEX | PHEV_CO | PHEV_NOx | PHEV_PM10 | PHEV_PM25 | PHEV_CO2 | PHEV_SOx | PHEV_CH4 | PHEV_N2O | PHEV_CO2E | PSH_TOG | PSH_TOTEX | PSH_CO | PSH_NOx | PSH_PM10 | PSH_PM25 | PSH_SOx | PSH_CH4 | PSH_N2O | PSH_CO2E | RUNEX_TOG | RUNEX_TOTEX | RUNEX_CO | RUNEX_NOx | RUNEX_PM10 | RUNEX_PM25 | RUNEX_SOx | RUNEX_CH4 | RUNEX_N2O | RUNEX_CO2E | PMBW_PM10 | PMBW_PM25 | PMBW_SOx | PMBW_CH4 | PMBW_N2O | PMBW_CO2E | Fuel_Consumption |
|---|---|---

City of Kerman General Plan

Last Updated: August 8, 2019

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Rubber Tired Dozer	1	8	247	0.40	Demo	835.59
Tractors/Loaders/Backhoes	1	8	97	0.37	Demo	337.45
XXX	0	8	20	0.30	Demo	-
Concrete/Industrial Saws	1	8	81	0.73	Site Prep	83.39
Excavators	1	8	18	0.38	Site Prep	9.65
Rubber Tired Dozer	1	8	247	0.40	Site Prep	125.34
XXX	0	8	20	0.30	Site Prep	-
Graders	1	8	187	0.41	Grading	194.53
Excavators	1	8	158	0.38	Grading	152.34
Rubber Tired Dozer	1	8	247	0.40	Grading	250.68
Tractors/Loaders/Backhoes	1	8	97	0.37	Grading	101.23
XXX	0	8	20	0.30	Grading	-
Cranes	1	8	231	0.29	Building	6,232.20
Forklifts	1	8	89	0.20	Building	1,840.97
Generator Sets	1	8	84	0.74	Building	6,428.90
Tractors/Loaders/Backhoes	1	8	97	0.37	Building	3,711.92
Welders	1	8	46	0.45	Building	2,140.90
XXX	0	8	20	0.30	Building	-
Air Compressors	1	8	78	0.48	Arch Coating	176.01
XXX	0	8	20	0.30	Arch Coating	-
Pavers	1	8	130	0.42	Paving	2,978.46
Paving Equipment	1	8	132	0.36	Paving	2,592.24
Rollers	1	8	80	0.38	Paving	1,843.60
XXX	0	8	20	0.30	Paving	-
					Total Fuel Used	**30,035.39**
						(Gallons)

Construction Phase	Days of Operation
Demolition Phase	20
Site Preparation Phase	3
Grading Phase	6
Building Construction Phase	220
Paving Phase	10
Architectural Coating Phase	129
Total Days	388

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Demolition	24.0	18	14.7	220.50
Site Prep Phase	24.0	18	14.7	33.08

Grading Phase	24.0	15	14.7	55.13
Building Phase	24.0	756	14.7	101871.00
Paving Phase	24.0	15	14.7	91.88
Architectural Coating Phase	24.0	151	14.7	11930.89
			Fuel	**114,202.46**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
		HAULING TRIPS		
Demolition	7.4	18	14.7	35.76
Site Prep Phase	7.4	18	14.7	35.76
Grading Phase	7.4	15	14.7	29.80
Building Phase	7.4	756	14.7	1501.78
Paving Phase	7.4	15	14.7	29.80
Architectural Coating Phase	7.4	151	14.7	299.96
			Fuel	**1,932.85**
		VENDOR TRIPS		
Demolition	7.4	18	14.7	715.14
Site Prep Phase	7.4	18	14.7	107.27
Grading Phase	7.4	15	14.7	178.78
Building Phase	7.4	756	14.7	330392.43
Paving Phase	7.4	15	14.7	297.97
Architectural Coating Phase	7.4	151	14.7	38694.77
			Fuel	**8.00**

Total Gasoline Consumption (gallons)	**114,202.46**
Total Diesel Consumption (gallons)	**31,976.25**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2018. *National Transportation Statistics 2018* . Available at: https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/223001/ntsentire2018q4.pdf.

City of Kerman General Plan

Last Updated: August 8, 2019

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	176,454,680		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix	Fuel Economy (MPG) [1]	
Light Duty Auto (LDA)	0.520917	LDA	42.85
Light Duty Truck 1 (LDT1)	0.027990	LDT1	39.43
Light Duty Truck 2 (LDT2)	0.176880	LDT2	34.25
Medium Duty Vehicle (MDV)	0.088790	MDV	25.65
Light Heavy Duty 1 (LHD1)	0.007604	LHD1	19.22
Light Heavy Duty 2 (LHD2)	0.003152	LHD2	17.37
Medium Heavy Duty (MHD)	0.034112	T6 Public	8.39
Heavy Heavy Duty (HHD)	0.131442	T7 Public	5.67
Other Bus (OBUS)	0.002311	OBUS	6.82
Urban Bus (UBUS)	0.001064	UBUS	5.34
School Bus (SBUS)	0.000910	SBUS	7.55
Motorhome (MH)	0.000395	MH	9.95
Motorcycle (MCY)	0.004434	MCY	37.87

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Light Duty Auto (LDA)		*Gasoline*	91,918,242.65		2,144,969.32
Light Duty Truck 1 (LDT1)		*Gasoline*	4,938,966.50		125261.9483
Light Duty Truck 2 (LDT2)		*Gasoline*	31,211,303.83		911261.9545
Medium Duty Vehicle (MDV)		*Gasoline*	15,667,411.05		610813.7715
Light Heavy Duty 1 (LHD1)		*Diesel*	1,341,761.39		69809.17725
Light Heavy Duty 2 (LHD2)		*Diesel*	556,185.15		32024.98523
Medium Heavy Duty (MHD)		*Diesel*	6,019,222.05		717770.0604
Heavy Heavy Duty (HHD)		*Diesel*	23,193,556.07		4090587.822
Other Bus (OBUS)		*Diesel*	407,786.77		59776.97261
Urban Bus (UBUS)		*Diesel*	187,747.78		35139.27604
School Bus (SBUS)		*Diesel*	160,573.76		21274.03496
Motorhome (MH)		*Diesel*	69,699.60		7002.706182
Motorcycle (MCY)		*Gasoline*	782,400.05		20659.58578

Total Gasoline Consumption (gallons)	**3,812,966.58**
Total Diesel Consumption (gallons)	**5,033,385.03**

8,846,351.61

Sources:

[1] California Air Resources Board (CARB). 2015. "EMFAC2014 Web Database." December 14, 2015. https://www.arb.ca.gov/emfac/2014/ (accessed March 15, 2019).

Carbon-Free Electricity Generation Calculations

2040 Kerman General Plan

2019

Interim RPS Targets (Percent Carbon-Free)	Year	Expressed Target?
33.00%	***2013***	***RPS Target***
34.00%	2014	
35.00%	2015	
36.00%	2016	
37.00%	2017	
38.00%	2018	
39.00%	2019	
40.00%	2020	
41.00%	2021	
42.00%	2022	
43.00%	2023	
44.00%	***2024***	***RPS Target***
47.00%	2025	
50.00%	***2026***	***RPS Target***
52.00%	***2027***	***RPS Target***
54.67%	2028	
57.33%	2029	
60.00%	***2030***	***RPS Target***
62.67%	2031	
65.33%	2032	
68.00%	2033	
70.67%	2034	
73.33%	2035	
76.00%	2036	
78.67%	2037	
81.33%	2038	
84.00%	2039	
86.67%	2040	
89.33%	2041	
92.00%	2042	
94.67%	2043	
97.33%	2044	
100.00%	***2045***	***RPS Target***

Notes: RPS = Renewable Portfolio Standard

RPS Targets are as expressed in SB 100 Bill Text:

https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=201720180SB100

For each interim target, the equation reads:

(([FUTURE TARGET]-[PAST TARGET])/([FUTURE YEAR]-[PAST YEAR]))+PREVIOUS YEAR TARGET

Example:

Interim Target for 2031 = ((100% - 60%)/(2045 - 2030))+ 60%

Project Electricity Consumption & Emissions

CalEEMod Annual Sheet Table 5.3, *Energy by Land Use - Electricity*

Current Utility Co. Renewable Mix	Project's kWh/Year	Project's Electricity MTCO2e
69.00%	134,407,180	39,253.81

	Actual MTCO2e*
	126,625.19

Note: * Actual MTCO2e is an approximation for 0% renewable energy mix where 100% of electricity generation is assumed to consist of the same proportion of carbon-generating activities.
Equation reads: Actual MTCO2e = MTCO2e/(1 - current utility renewable energy mix)
Example: 1,000 MTCO2e / (1 - 0.6) = 2,500 MTCO2e

Interim RPS Year	Interim RPS Target:	Adjusted MTCO2e**
2040	86.67%	**16,883.36**

Note: ** Adjusted MTCO2e takes the Actual MTCO2e and applies the interim RPS target selected from the previous page.
Equation reads: Adjusted MTCO2e = Actual MTCO2e * (1 - Interim RPS)
Example: 2,500 MTCO2e * (1 - 0.8) = 500 MTCO2e

Energy Unit Conversion Sheet

Gasoline

Gallons (gal.)	441.50	Barrels (bbl.)	1.00	Btu	1.00
441.50	gal.	42.00	gal.	0.00	gal.
0.44	Thousand gallons	0.04	Thousand gallons	0.00	Thousand gallons
0.00	Million gallons	0.00	Million gallons	0.00	Million gallons
10.51	bbl.	1.00	bbl.	0.02	bbl.
0.01	Thousand bbl.	0.00	Thousand bbl.	0.00	Thousand bbl.
0.00	Million bbl.	0.00	Million bbl.	0.00	Million bbl.
521.34	U.S. Therms	49.59	U.S. Therms	0.00	U.S. Therms
48,470,601.27	British thermal units (Btu)	4,611,019.83	British thermal units (Btu)	1.00	British thermal units (Btu)
48.47	Million Btu (MMBtu)	4.61	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)

Diesel

Gallons (gal.)	1.00	Barrels (bbl.)	1.00	Btu	1.00
1.00	gal.	42.00	gal.	0.00	gal.
0.00	Thousand gallons	0.04	Thousand gallons	0.00	Thousand gallons
0.00	Million gallons	0.00	Million gallons	0.00	Million gallons
0.02	bbl.	1.00	bbl.	0.02	bbl.
0.00	Thousand bbl.	0.00	Thousand bbl.	0.00	Thousand bbl.
0.00	Million bbl.	0.00	Million bbl.	0.00	Million bbl.
1.37	U.S. Therms	57.58	U.S. Therms	0.00	U.S. Therms
127,460.00	British thermal units (Btu)	5,353,320.00	British thermal units (Btu)	1.00	British thermal units (Btu)
0.13	Million Btu (MMBtu)	5.35	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)

Electricity

Kilowatt-Hours (kWh)	1.00	U.S. Therm	1.00	Btu	1.00
1.00	Kilowatt-Hours	27.25	Kilowatt-Hours	0.00	Kilowatt-Hours
0.00	Megawatt-Hours	0.03	Megawatt-Hours	0.00	Megawatt-Hours
0.00	Gigawatt-Hours	0.00	Gigawatt-Hours	0.00	Gigawatt-Hours
0.04	U.S. Therms	1.00	U.S. Therms	0.00	U.S. Therms
3,412.00	British thermal units (Btu)	92,974.00	British thermal units (Btu)	1.00	British thermal units (Btu)
0.00	Million Btu (MMBtu)	0.09	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)

Natural Gas

Thousand Cubic Feet (Mcf)	1.00	U.S. Therm	1.00	Btu	1.00
1,000.00	Cubic Feet (cf)	89.66	Cubic Feet (cf)	0.00	Cubic Feet (cf)
1.00	Thousand Cubic Feet (Mcf)	0.09	Thousand Cubic Feet (Mcf)	0.00	Thousand Cubic Feet (Mcf)
0.00	Million Cubic Feet (MMcf)	0.00	Million Cubic Feet (MMcf)	0.00	Million Cubic Feet (MMcf)
11.15	U.S. Therms	1.00	U.S. Therms	0.00	U.S. Therms
1,037,000.00	British thermal units (Btu)	92,974.00	British thermal units (Btu)	1.00	British thermal units (Btu)
1.04	Million Btu (MMBtu)	0.09	Million Btu (MMBtu)	0.00	Million Btu (MMBtu)

Sources:

U.S. Energy Information Administration (EIA). May 2017. "Frequently Asked Questions: What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?" https://www.eia.gov/tools/faqs/faq.php?id=45&t=8. (accessed February 5, 2018).

Schremp, Gordon. 2017. Senior Fuels Specialist, California Energy Commission. Personal communication via phone and email regarding fuel consumption in California by County and by source with Lance Park, Associate Planner, Rincon Consultants, Inc. August 22, 2017.

Appendix D

Greenhouse Gas Emissions

GHG Emission Calculations				
	CO2e			
	462.1301		combined annual	
	459.5371			
	453.3099		889.2	
	712.6472		2529.1	
	735.5984		3426.1	
	731.996		1631	
	1620.403		276.5	
	1627.999		123203	131954.9
	1600.857			
	1588.45		4950	26.65756
	1611.288			
	1597.399			
	1591.814			
	1569.801			
	1561.52			
	1560.529			
	1566.508			
	1610.608			
	2011.244			
	2003.538			
Total	26677.18	889.2392		

Appendix E

Noise

HUD DNL Calculator Inputs															
		Existing				Future									
A		B	C	D	E	F	G	H	I	J	K	L	M	N	O
Roadway	Segment	Existing ADT	Auto	Med	Heavy	FCOG 2018 Traffic Volumes	FCOG 2035 Traffic Volumes	2035 ADT (B + [G-H])	2040 ADT (H*1.1)	Auto	Med	Heavy	Average Speed	Approx. Road Width	Distance from Centerline
California Ave.	West of Del Norte Ave.	3,241	3079	97	65	38	85	3,288	3,617	3436	109	72	30	60	30
	East of Del Norte Ave.	3,241	3079	97	65	767	1,036	3,510	3,861	3668	116	77	30	40	20
Kearney Blvd.	Park Ave. to Boyd Ave.	3,754	3566	113	75	516	560	3,798	4,178	3969	125	84	35	60	30
	West of 8th St.	5,031	4779	151	101	1,125	1,779	5,685	6,254	5941	188	125	35	60	30
	West of Park Ave.	2,358	2240	71	47	54	301	2,605	2,866	2722	86	57	35	60	30
Vineland Ave.	South of Kearney Blvd.	3,444	3272	103	69	334	560	3,670	4,037	3835	121	81	35	70	35
	South of Whitesbridge Ave.	2,692	2557	81	54	2,949	2,178	1,921	2,113	2007	63	42	35	70	35
Whitesbridge Ave.	West of Madera Ave.	15,500	14415	543	505	13,582	22,224	24,142	26,556	24697	929	929	40	70	35
	East of Madera Ave.	15,200	13908	578	714	13576	15,396	17,020	18,722	17131	655	655	40	90	45
Madera Ave.	Rte. 180 to Belmont Ave.	9,100	8317	373	410	12,859	17,167	13,408	14,749	13480	605	664	30	80	40
	D St. to Rte. 180 (Whitesbridge Ave.)	10,900	9963	447	491	12,975	13,751	11,676	12,844	11739	527	578	30	70	35
	C St. To D St.	9,500	8683	390	428	10,886	13,751	12,365	13,602	12432	558	612	30	70	35
	California Ave. to C St.	8,300	7586	340	374	5,750	8,565	11,115	12,227	11175	501	550	30	175	88
	Church Ave. to California Ave.	8,300	7586	340	374	5,750	8,565	11,115	12,227	11175	501	550	30	70	35

Modal Split				
Vehicle Type	Whitesbridge Ave. West of Madera Ave.	Whitesbridge Ave. East of Madera	Madera Ave.	All Other Roads
Automobiles	93.0%	91.5%	91.4%	95%
Medium Trucks	3.5%	3.8%	4.1%	3%
Heavy Trucks	3.5%	4.7%	4.5%	2%

Sources
- Highway traffic volumes source: http://www.dot.ca.gov/trafficops/census/docs/2016_aadt_volumes.pdf
- Highway modal split source: http://www.dot.ca.gov/trafficops/census/docs/2016_aadt_truck.pdf
- Other roadway traffic volumes source: City of Kerman
- Speed limit source: Google Street View
- 2035 ADT calculated using the Increment Method per recommendation of Lang Yu at FCOG
- 2040 ADT calculated assuming 2% linear growth from 2035 to 2040 (consistent with VMT increase from 2018 to 2040)

Existing and Future Noise Contours											
		Existing Noise Contour (ft) - Distance of receptor/contour from center of all travel lanes					Future Noise Contour (ft) - Distance of receptor/contour from center of all travel lanes				
Roadway	**Segment**	**60 dbA**	**65 dbA**	**70 dbA**	**75 dbA**	**80 dBA**	**60 dbA**	**65 dbA**	**70 dbA**	**75 dbA**	**80 dBA**
California Ave.	West of Del Norte Ave.	85	40				106	49	23	11	
	East of Del Norte Ave.	85	40				110	51	24	11	
Kearney Blvd.	Park Ave. to Boyd Ave.	100	45				125	58	27	13	
	West of 8th St.	120	55				162	75	35	16	
	West of Park Ave.	75	35				96	45	21	10	
Vineland Ave.	South of Kearney Blvd.	95	45				121	56	26	12	
	South of Whitesbridge Ave.	80	40				79	37	17	8	
Whitesbridge Ave.	West of Madera Ave.	340	160	75	35		590	274	127	59	
	East of Madera Ave.	400	185	85			464	215	100	46	
Madera Ave.	Rte. 180 to Belmont Ave.	250	115	55			412	191	89	41	
	D St. to Rte. 180 (Whitesbridge Ave.)	285	130	60			378	175	81	38	
	C St. To D St.	260	120	55			390	181	84	39	
	California Ave. to C St.	235	110				365	169	79	36	
	Church Ave. to California Ave.	235	110	50			366	170	79	37	
Railroad		1256	583	271	126	58	1256	583	271	126	58

Appendix F

Transportation and Traffic

ROAD	DESCRIPTION	DIRECTIO	DIR	DOW	MONTH	DAY	YR	A01_TIME	A03_TIME	M07_TIME	P01_TIME	P03_TIME	E11_TIME	A01_CNT	TOT_A01	A03_CNT	TOT_A03	M07_CNT	TOT_M07	P01_CNT	TOT_P01	P03_CNT	TOT_P03	E11_CNT	TOT_E11	D24_CNT	TOT_D24_CNT
SISKIYOU AVE	WHITESBRIDGE RD (SR 180) TO CALIFORNIA AVE	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	116.5	337	199.5	630.5	508	1034	180	298.5	472.5	763.5	290.5	512.5	1470.5	2940.5
SISKIYOU AVE	WHITESBRIDGE RD (SR 180) TO CALIFORNIA AVE	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	220.5	337	431	630.5	526	1034	118.5	298.5	291	763.5	222	512.5	1470	2940.5
CALIFORNIA AVE	VINELAND AVE TO GOLDENROD AVE.	EW	4	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	103	221	211.5	437	487.5	938.5	98.5	196	263.5	555.5	210	403	1172.5	2334
CALIFORNIA AVE	VINELAND AVE TO GOLDENROD AVE.	EW	2	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	118	221	225.5	437	451	938.5	97.5	196	292	555.5	193	403	1161.5	2334
CALIFORNIA AVE	SISKIYOU AVE TO DEL NORTE AVE	EW	2	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	0	1	1	2	4	8.5	1	1.5	2.5	4	0	0	7.5	14.5
CALIFORNIA AVE	SISKIYOU AVE TO DEL NORTE AVE	EW	4	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	1	1	1	2	4.5	8.5	0.5	1.5	1.5	4	0	0	7	14.5
DEL NORTE ST	CALIFORNIA AVE TO SHWY 180	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	97	314	164	567.5	495	1001	151.5	256.5	379.5	659.5	270	462	1308.5	2690
DEL NORTE ST	CALIFORNIA AVE TO SHWY 180	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	217	314	403.5	567.5	506	1001	105	256.5	280	659.5	192	462	1381.5	2690
VINELAND AVE	CHURCH AVE TO MAY AVE	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	7.5	16.5	14.5	32.5	29.5	74	5	11	18.5	38.5	5	13	67.5	158
VINELAND AVE	CHURCH AVE TO MAY AVE	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	9	16.5	18	32.5	44.5	74	6	11	20	38.5	8	13	90.5	158
VINELAND AVE	CALIFORNIA AVE TO KEARNEY AVE	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	61	124.5	167	281	307.5	620.5	53.5	138	143	356.5	160.5	319	778	1577
VINELAND AVE	CALIFORNIA AVE TO KEARNEY AVE	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	63.5	124.5	114	281	313	620.5	84.5	138	213.5	356.5	158.5	319	799	1577
VINELAND AVE	KEARNEY AVE TO URL .125M N/KEARNEY A	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	142.5	293	286.5	570.5	553	1149	113	229	292	603.5	216	447.5	1347.5	2770.5
VINELAND AVE	KEARNEY AVE TO URL .125M N/KEARNEY A	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	150.5	293	284	570.5	596	1149	116	229	311.5	603.5	231.5	447.5	1423	2770.5
VINELAND AVE	URL .375M N/KEARNEY TO SHWY 180	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	82	186	171	426	527	1017	135.5	216.5	361	595.5	274.5	478	1333.5	2516.5
VINELAND AVE	URL .375M N/KEARNEY TO SHWY 180	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	104	186	255	426	490	1017	81	216.5	234.5	595.5	203.5	478	1183	2516.5
GOLDENROD AVE	WHITESBRIDGE RD (SR 180) TO CALIFORNIA AVE	NS	3	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	92.5	298.5	153.5	457.5	440.5	822.5	112	191.5	302	500.5	209	338	1105	2118.5
GOLDENROD AVE	WHITESBRIDGE RD (SR 180) TO CALIFORNIA AVE	NS	1	Mid-Week	1	21	2014	7AM-8AM	6AM-9AM	9AM-4PM	5PM-6PM	4PM-7PM	7PM-6AM	206	298.5	304	457.5	382	822.5	79.5	191.5	198.5	500.5	129	338	1013.5	2118.5

2016 Caltrans Count

Road	Description	Back Peak	Back Peak	Back AADT	Ahead Pe	Ahead Pe	Ahead AADT
SR145	Church Ave	620	7500	7200	590	7500	7200
SR145	C St	690	9200	8300	780	10200	9500
SR145	D St	780	10200	9500	870	11000	9500
SR145	180	1150	12400	10900	1100	11000	9100
SR180	Siskiyou Ave	850	10400	9200	1000	12600	11300
SR180	145	1400	16300	15500	1350	16700	15200
SR180	Goldenrod Ave	1350	16700	15200	1050	13100	12100

LAND USE SUMMARY BY TAZ

Growth from 2018 to 2040

				1	2	3	4	5	6	7	8	9	10	11	12			
				Population	SF Detached 0 Auto	SF Detached 1 Auto	SF Detached 2+ Auto	MF Attached 0 Auto	MF Attached 1 Auto	MF Attached 2+ Auto	Retail	Services	Government	Education	Other	TOTAL	TOTAL	
TAZ	Jurisdicti	SOI	Communi	Persons	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Employees	Employees	Employees	Employees	Employees	Housing Units	Employees	Pop/HU
290	Fresno Co	Kerman	Kerman	1124			207		89		212	133	14	60		296	419	3.8
292	Fresno Co	Kerman	Kerman													0	0	3.8
298	Kerman	Kerman	Kerman	706			186									186	0	3.8
299	Fresno Co	Kerman	Kerman	1349			355									355	0	3.8
300	Fresno Co	Kerman	Kerman	2120			358		200		248	157	16	70		558	491	3.8
301	Fresno Co	Kerman	Kerman													0	0	3.8
360	Kerman	Kerman	Kerman	7			2									2	0	3.8
361	Kerman	Kerman	Kerman	19			5									5	0	3.8
362	Kerman	Kerman	Kerman	372			98									98	0	3.8
363	Kerman	Kerman	Kerman													0	0	3.8
364	Kerman	Kerman	Kerman													0	0	3.8
365	Kerman	Kerman	Kerman												50	0	50	3.8
366	Kerman	Kerman	Kerman												50	0	50	3.8
Total Growth:				5697			1211		289		460	290	30	130	100	1500	1010	

Industrial 9.18 ac
Commercial 30.9 ac
Residential: 1,500 du

LAND USE SUMMARY BY TAZ

Proposed General Plan Buildout (MH)

				1	2	3	4	5	6	7	8	9	10	11	12			
				Population	SF Detached 0 Auto	SF Detached 1 Auto	SF Detached 2+ Auto	MF Attached 0 Auto	MF Attached 1 Auto	MF Attached 2+ Auto	Retail	Services	Government	Education	Other	TOTAL	TOTAL	
TAZ	Jurisdicti	SOI	Communi	Persons	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Dwelling Units	Employees	Employees	Employees	Employees	Employees	Housing Units	Employees	Pop/HU
290	Fresno Co	Kerman	Kerman	7,778			1,958		89		1,150	416			-	2,047	1,566	3.8
292	Fresno Co	Kerman	Kerman	5,848			1,539		-		1,634	591			112	1,539	2,337	3.8
298	Kerman	Kerman	Kerman	4,617			1,019		196		-	-			-	1,215	-	3.8
299	Fresno Co	Kerman	Kerman	3,100			615		201		3,331	1,205			2,348	816	6,884	3.8
300	Fresno Co	Kerman	Kerman	7,387			1,791		153		794	287			-	1,944	1,081	3.8
301	Fresno Co	Kerman	Kerman	-			-		-		1,512	547			2,655	-	4,714	3.8
360	Kerman	Kerman	Kerman	1,474			201		187		307	111			-	388	418	3.8
361	Kerman	Kerman	Kerman	3,948			207		832		427	154			-	1,039	581	3.8
362	Kerman	Kerman	Kerman	2,667			415		287		-	-			-	702	-	3.8
363	Kerman	Kerman	Kerman	570			150		-		192	69			-	150	261	3.8
364	Kerman	Kerman	Kerman	1,280			115		222		132	47			-	337	179	3.8
365	Kerman	Kerman	Kerman	-			-		-		391	141			2,296	-	2,828	3.8
366	Kerman	Kerman	Kerman	-			-		-		127	46			2,477	-	2,650	3.8

LAND USE SUMMARY BY TAZ

Growth from 2018 to 2040

MH calculated the amount of residential and commercial/industrial growth that is projected to occur between 2018 to 2040 based on figures in the General Plan Background Report. The Background Report presents key findings from the 2017 FCOG “Fresno County 2050 Projections" report, which states that the city of Kerman is projected to grow by an additional 3,820 persons (see BR Table 2-22). Using the assumption that there are 3.8 persons/household (see BR Table 2-6), this population growth requires an additional 1,005 dwelling units within current city limits. Because the 2040 General Plan planning area is larger than current city limits, and the city is likely to experience more rapid housing growth through development pressure, particularly from the city of Fresno, MH assumed that Kerman would grow by an additional 1,500 dwelling units. The Background Report also provides 2018-2040 employment growth projections by job sector (see BR Table 2-23). MH used the International Facility Management Association (IFMA) benchmarks for interior gross area data, which provides the mean square footage per employee by job sector, to calculate the additional amount of commercial and industrial land. Based on discussion with ADE, MH refined the projected job growth figures and area per industrial employee. Because these figures are based on interior gross area, MH calculated the total land needed to accomodate this job growth based on a typical FAR of 0.25. The total industrial area growth was 9.18 ac and 30.9 ac for commercial.

To account for an additional 1,500 dwelling units of **residential** development, MH first considered growth from infill development. MH identified parcels that fit the following criteria as likely for infill development: (1) identified as vacant in the Background Report, (2) are within city limits, and (3) have a residential land use designation in the 2040 General Plan. All of the parcels that fit this criteria are designated as Medium Density Residential in the 2040 General Plan. MH assumed that 6 du/ac is likely for development on these parcels. MH listed these dwelling units to the 2019 FCOG estimates per respective TAZ under "SF Detached 2+ Auto." For the associated population of these du, MH assumed 3.8 persons per household, based on the same figure that was used in the Background Report.

LAND USE SUMMARY BY TAZ

Proposed General Plan Buildout (MH)

MH calculated the full buildout based on the proposed General Plan Land Use designations.

ASSUMPTIONS -

Persons/Household: 3.8
Single-Family Residential Development Density (SF Detached 2+ Auto): 6 du/ac
Multifamily Residential Development Density (MF Attached 1 Auto): 20 du/ac
2018-2040 Job Growth for Industrial: 9.18 ac, evenly split between TAZs 365 and 366
TAZ 290

ADE 2040 Jobs Projections

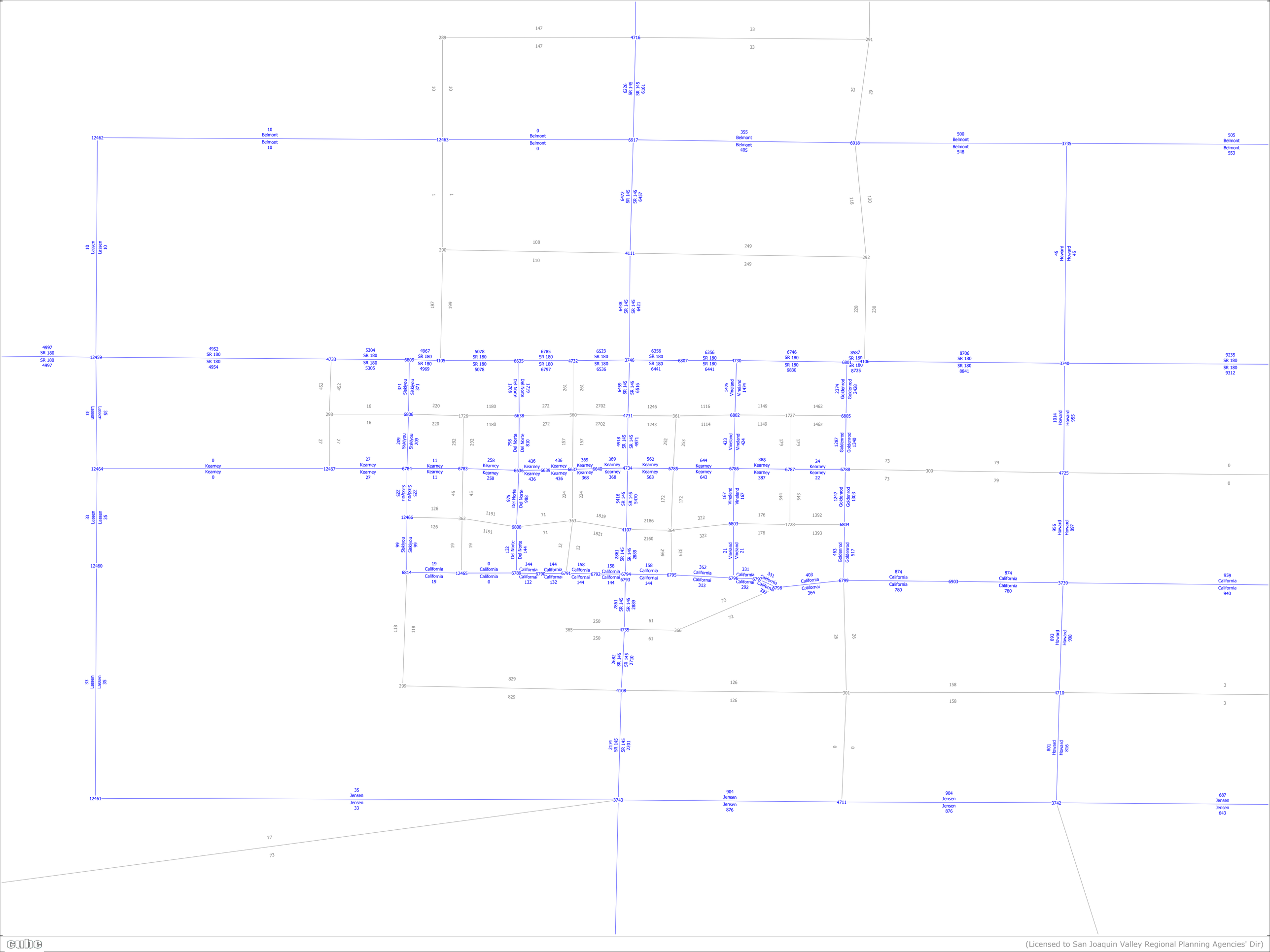
2018-2040 Growth

Job Sector	2018-40 Job Growth	Area per Employee	interior bldg SF	interior bldg ac	parcel Typical FAR	parcel ac	2018-2040 Growth land (ac)	
Agriculture	0	619	0	0.00	0.25	0.00		
Mfg./Mining	0	619	0	0.00	0.25	0.00		
Other Industrial	100	1000	100000	2.30	0.25	9.18	**9.18**	**Industrial**
Retail	250	505	126250	2.90	0.25	11.59		
Office	120	358	42960	0.99	0.25	3.94		
Education	130	365	47450	1.09	0.25	4.36		
Health Services	170	330	56100	1.29	0.25	5.15		
Food Services	210	231	48510	1.11	0.25	4.45		
Government	30	508	15240	0.35	0.25	1.40	**30.90**	**Commercial**

			12.1	365.00	1,210.00	441,650.00	0.0005	220.83	Other Industrial
					3,025.00	1,104,125.00		552.06	Retail
					1,452.00	529,980.00		264.99	Office
					1,573.00	574,145.00		287.07	Education
					2,057.00	750,805.00		375.40	Health Services
					2,541.00	927,465.00		463.73	Food Services
					363.00	132,495.00		66.25	Government

Assumes 16.7 ac of commercial development will occur in TAZ 300, and the remaining will occur in TAZ 290.

54%



cube
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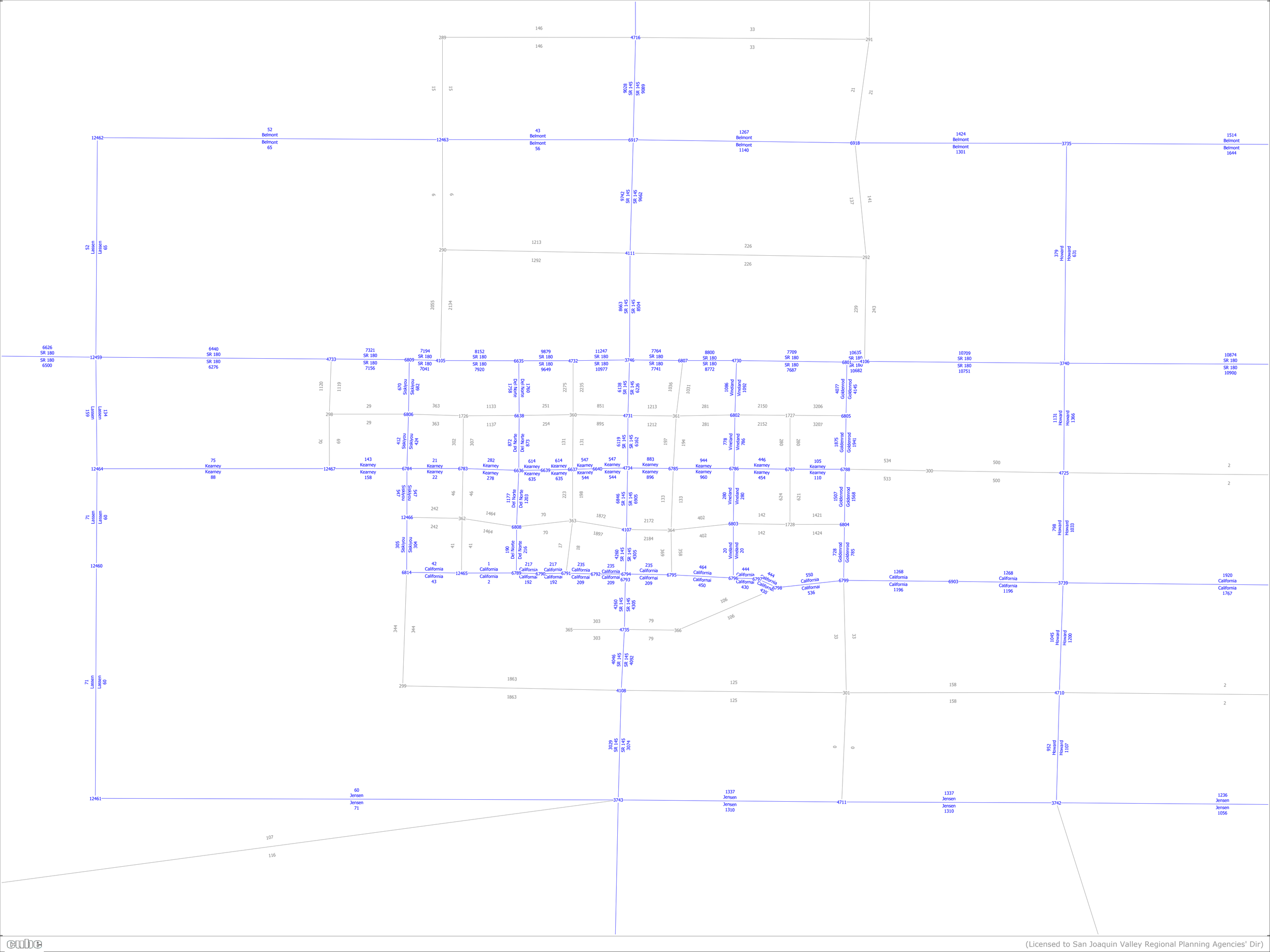

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TAZ	2018 Daily Trips (In & Out)	2018 Avg Trip Length	2018 Daily VMT	2035 Daily Trips (In & Out)	2035 Avg Trip Length	2035 Daily VMT	2018-35 % change VMT	% change/year	5 year change	2040 Increase in Daily VMT	2040 Daily VMT	Change from 2018 to 2040 Net Daily VMT
290	616	13	8,211	6,694	11	73,500	0.9	5%	26%	19,203	92,703	84,491
292	1,194	12	14,519	1,212	12	14,629	0.0	0%	0%	32	14,661	142
298	988	14	13,694	2,426	14	33,333	0.6	3%	17%	5,776	39,110	25,416
299	1,894	14	26,838	4,414	14	63,826	0.6	3%	17%	10,879	74,705	47,867
300	304	13	4,071	2,068	13	27,773	0.9	5%	25%	6,971	34,745	30,674
301	620	13	8,320	632	14	8,545	0.0	0%	1%	66	8,611	290
360	6,784	10	64,855	7,023	10	69,879	0.1	0%	2%	1,478	71,356	6,501
361	5,224	11	55,322	5,445	11	60,222	0.1	0%	2%	1,441	61,663	6,341
362	2,756	12	34,147	3,586	12	44,646	0.2	1%	7%	3,088	47,734	13,587
363	4,254	11	46,241	4,366	11	48,899	0.1	0%	2%	782	49,681	3,440
364	5,958	10	59,520	6,152	10	63,366	0.1	0%	2%	1,131	64,497	4,976
365	500	13	6,640	606	13	8,090	0.2	1%	5%	427	8,517	1,877
366	266	13	3,519	370	13	4,758	0.3	2%	8%	364	5,123	1,603
1726	3,384	11	38,611	3,604	12	41,806	0.1	0%	2%	940	42,746	4,135
1727	5,580	9	51,113	11,275	9	101,137	0.5	3%	15%	14,713	115,850	64,737
1728	4,224	11	47,816	4,374	11	49,689	0.0	0%	1%	551	50,240	2,424
Kerman	**44,546**		**483,437**	**64,247**		**714,098**	**0.3**	2%	10%	**67,841**	**781,939**	**298,501**
										24,762,048.74	285,407,694.64	108,953,014.44

230660

2040 VMT = 5-year percent change times 2035 VMT

Inputs

Yrs btwn 2018 and 2035	17
Yrs btwn 2035 and 2040	5

Appendix G

Tribal Cultural Resources

Local Government Tribal Consultation List Request
Native American Heritage Commission

1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☒**CEQA Tribal Consultation List (AB 52) – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☒ **General Plan (SB 18) - *Per Government Code § 65352.3.***

Local Action Type:

☒General Plan ___ General Plan Element ___ General Plan Amendment

___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: City of Kerman General Plan Update

Local Government/Lead Agency: City of Kerman

Contact Person: Olivia Pimentel

Street Address: 850 S. Madera Avenue

City: Kerman Zip: 93630

Phone (559) 846-9386 Fax: NA

Email: opimentel@cityofkerman.org

Specific Area Subject to Proposed Action

County: Fresno County City/Community: Kerman

Project Description: The project is an update to the City of Kerman's General Plan and involves the preparation of a strategic comprehensive update of the City's General Plan and preparation of all associated California Environmental Quality Act (CEQA) documentation necessary for approval of a 2017-2037 General Plan and Environmental Impact Report (EIR) for the City.

Additional Request

☐ **Sacred Lands File Search - *Required Information:***

USGS Quadrangle Name(s):_____
_____

Township:_____ Range:_____ Section(s):_____

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710

July 26, 2018

Olivia Pimentel
City of Kerman

Sent by Email: opimentel@cityofkerman.org
Number of Pages: 3

RE: City of Kerman General Plan Update, Fresno County

Dear Ms. Pimentel:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced project.

Government Code §65352.3 requires local governments to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose of avoiding, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans. As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 require public agencies to consult with California Native American tribes identified by the NAHC for the purpose of avoiding and or mitigating impacts to tribal cultural resources:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, **the lead agency shall provide formal notification** to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC requests that lead agencies include in their notifications information regarding any cultural resources assessment that has been completed on a potential "area of project affect" (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;

- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. The search request form can be found at http://nahc.ca.gov/wp-content/uploads/2015/04/Sacred-Lands-File-NA-Contact-Form.pdf.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. **A tribe may be the only source of information regarding the existence of a tribal cultural resource.**

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

Lead agencies or agencies potentially undertaking a project are encouraged to send more than one written notice to tribes that are traditionally and culturally affiliated to a potential APE during the 30-day notification period to ensure that the information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information. If you have any questions, please contact me at my email address: Sharaya.Souza@nahc.ca.gov.

Sincerely,

Sharaya Souza
Staff Services Analyst
(916) 573-0168

Native American Heritage Commission
Native American Consultation List
7/26/2018

Big Sandy Rancheria of Western Mono Indians
Elizabeth D. Kipp, Chairperson
PO. Box 337 37387 Auberry Mission Rd.
Auberry , CA 93602
lkipp@bsrnation.com
(559) 374-0066
(559) 374-0055
Western Mono

Kings River Choinumni Farm Tribe
Stan Alec
3515 East Fedora Avenue
Fresno , CA 93726
(559) 647-3227 Cell
Foothill Yokuts
Choinumni

Cold Springs Rancheria
Carol Bill, Chairperson
P.O. Box 209
Tollhouse , CA 93667
(559) 855-5043
(559) 855-4445 Fax
Mono

North Fork Mono Tribe
Ron Goode, Chairperson
13396 Tollhouse Road
Clovis , CA 93619
rwgoode911@hotmail.com
(559) 299-3729 Home
(559) 355-1774 - cell
Mono

Dumna Wo-Wah Tribal Goverment
Robert Ledger SR., Chairperson
2191 West Pico Ave.
Fresno , CA 93705
ledgerrobert@ymail.com
(559) 540-6346
Dumna/Foothill Yokuts
Mono

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8
Lemoore , CA 93245
(559) 924-1278
(559) 924-3583 Fax
Tache
Tachi
Yokut

Dunlap Band of Mono Indians
Benjamin Charley Jr., Tribal Chair
P.O. Box 14
Dunlap , CA 93621
ben.charley@yahoo.com
(760) 258-5244
Mono

Table Mountain Rancheria
Leanne Walker-Grant, Chairperson
P.O. Box 410
Friant , CA 93626
(559) 822-2587
(559) 822-2693 Fax
Yokuts

Dunlap Band of Mono Indians
Dick Charley, Tribal Secretary
5509 E. McKenzie Avenue
Fresno , CA 93727
dcharley2016@gmail.com
(559) 554-5433
Mono

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410
Friant , CA 93626
rpennell@tmr.org
(559) 325-0351
(559) 325-0394 Fax
Yokuts

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
City of Kerman General Plan Update, Fresno County.

Native American Heritage Commission
Native American Consultation List
7/26/2018

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue
Fresno , CA 93720
dave@davealvarez.com
(559) 217-0396 Cell

Choinumni

Traditional Choinumni Tribe
Rick Osborne, Cultural Resources
2415 E. Houston Avenue
Fresno , CA 93720
(559) 324-8764
lemek@att.net

Choinumni

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas , CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
City of Kerman General Plan Update, Fresno County.

City of Kerman General Plan Update SB 18 & AB 52 Correspondence Tracking

Contact List	Date Letter Sent to contact	Date of Response	Comments/Concerns
Big Sandy Rancheria of Western Mono Indians Elizabeth D. Kipp, Chairperson P.O. Box 337 37387 Auberry Mission Road Auberry, CA 93602	June 5, 2019	No Response	
Cold Springs Rancheria Carol Bill, Chairperson P.O. Box 209 Tollhouse, CA 93667	June 5, 2019	No Response	
Dumna Wo-Wah Tribal Government Robert Ledger SR., Chairperson 2191 West Pico Avenue Fresno, CA 93705	June 5, 2019	No Response	
Dunlap Band of Mono Indians Benjamin Charley Jr., Tribal Chair P.O. Box 14 Dunlap, CA 93621	June 5, 2019	No Response	
Dunlap Band of Mono Indians Dick Charley, Tribal Secretary 5509 E. McKenzie Avenue Fresno, CA 93727	June 5, 2019	No Response	
Kings River Choinumni Farm Tribe Stan Alec 3515 East Fedora Avenue Fresno, CA 93726	June 5, 2019	No Response	

Contact List	Date Letter Sent to contact	Date of Response	Comments/Concerns
North Fork Mono Tribe Ron Goode, Chairperson 13396 Tollhouse Road Clovis, CA 93619	June 5, 2019	No Response	
Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore, CA 93245	June 5, 2019	No Response	
Table Mountain Rancheria Leanne Walker-Grant, Chairperson P.O. Box 410 Friant, CA 93626	June 5, 2019	No Response	
Table Mountain Rancheria Bob Pennell, Cultural Resources Director P.O. Box 410 Friant, CA 93626	June 5, 2019	August 5, 2019	No concerns at this time, however if cultural resources are identified the Table Mountain Rancheria Tribe would like to be notified.
Traditional Choinumni Tribe David Alvarez, Chairperson 2415 E. Houston Avenue Fresno, CA 93720	June 5, 2019	No Response	
Traditional Choinumni Tribe Rick Osborne, Cultural Resources 2415 E. Houston Avenue Fresno, CA 93720	June 5, 2019	No Response	

Contact List	Date Letter Sent to contact	Date of Response	Comments/Concerns
Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas, CA 93906	June 5, 2019	No Response	

TABLE MOUNTAIN RANCHERIA
TRIBAL GOVERNMENT OFFICE

CERTIFIED 7522 8510

August 5, 2019

Olivia Pimentel, Assistant Planner
City of Kerman
850S. Madera Avenue
Kerman, Ca. 93630

RE: City of Kerman General Plan Update Project, City of Kerman

Dear: Olivia Pimentel

This is in response to your letter dated, June 05, 2019, regarding, City of Kerman General Plan Update Project, City of Kerman. Thank you for notifying us of the potential development and the request for consultation.

We decline participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director
rpennell@tmr.org
559.325.0351

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

Richard L. Jones
Tribal Council Member

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

Appendix H

NOP Comment Letters

rec'd 5/13/19

XAVIER BECERRA
Attorney General

State of California
DEPARTMENT OF JUSTICE

1515 CLAY STREET, 20TH FLOOR
P.O. BOX 70550
OAKLAND, CA 94612-0550

Public: (510) 879-1300
Telephone: (510) 879-0090
Facsimile: (510) 622-2272
E-Mail: Abigail.Blodgett@doj.ca.gov

May 9, 2019

Via First Class Mail and Email

Olivia Pimentel
City of Kerman
Planning and Development Services Department
Kerman City Hall
850 S. Madera Avenue
Kerman, CA 93630
opimentel@cityofkerman.org

RE: City of Kerman 2040 General Plan Update – Notice of Preparation of a Draft Program Environmental Impact Report

Dear Ms. Pimentel:

The California Attorney General's Office has reviewed the Notice of Preparation ("NOP") for the City of Kerman 2040 General Plan Update Draft Environmental Impact Report. The NOP states that the revised General Plan Policy Document will include environmental justice policies. The Attorney General's Bureau of Environmental Justice would like to serve as a resource for Kerman as it undergoes the important process of developing environmental justice policies and complying with Senate Bill 1000 ("SB 1000"). The following comments provide information regarding SB 1000's requirements and resources for SB 1000 compliance in an effort to help Kerman effectively address environmental justice concerns within its jurisdiction.

A. Background on Environmental Justice and SB 1000

Low-income communities and communities of color often bear a disproportionate burden of pollution and associated health risks when compared to their more affluent neighbors. This inequity can be addressed through environmental justice, which is defined by California law as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12(e).) Environmental justice aims to correct the legacy of concentrating pollution and other hazards in or near low-income communities of color by reducing these hazards and involving the impacted communities in any related decisions.

The California Legislature passed SB 1000 in 2016 to promote environmental justice through the local land use planning process. SB 1000 ensures that local governments take into

account pollution burdens and other hazards experienced by low-income communities that are disproportionately exposed to such risks. The implementation of SB 1000 is intended to make environmental justice a real and vital part of the planning process by requiring local governments to identify environmental justice issues in their communities and address them through tailored environmental justice policies.

B. Legal Requirements of SB 1000

If a city or county adopts or updates two or more elements of its general plan after January 1, 2018, SB 1000 requires the city or county to identify any "disadvantaged communities" in its jurisdiction. (Gov. Code, § 65302(h)(1)-(2).) SB 1000 defines "disadvantaged communities" as either: (1) "an area identified by the California Environmental Protection Agency (CalEPA) pursuant to Section 39711 of the Health and Safety Code"; or (2) "an area that is a low-income area that is disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation." (*Id.* at (h)(4)(A).)

Regarding the first definition, pursuant to Health and Safety Code section 39711, CalEPA designates an area as a disadvantaged community if a census tract scores at or above 75 percent on the agency's CalEnviroScreen screening tool. This tool and additional information regarding how it works is available on CalEPA's website.[1] Generally speaking, CalEnviroScreen combines pollution burden indicators with population characteristics and socioeconomic indicators to rank every census tract in the state, with those scoring highest as the most burdened and most vulnerable to pollution.[2]

Pursuant to the second definition of a disadvantaged community, the local government should first determine whether low-income areas exist. SB 1000 defines a "low-income area" as "an area with household incomes at or below 80 percent of the statewide median income" or (2) an area with "household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's (HCD) list of state income limits adopted pursuant to Section 50093 of the Health and Safety Code." (Gov. Code, § 65302(h)(4)(C).) Once a city or county identifies low-income areas using this definition, the local government would then evaluate if these areas are disproportionately affected by environmental pollution that can lead to negative health impacts. (*Id.* at (h)(4)(A).) The law does not expressly prescribe what information a local government must consider in the second part of this analysis. However, there are various data sets and tools a local government can use, including CalEnviroScreen, which contains specific information regarding the location of pollution sources throughout the state.

---

[1] CalEPA and Office of Health Hazard Assessment, CalEnviroScreen 3.0, *available at* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.

[2] CalEPA and Office of Health Hazard Assessment, CalEnviroScreen 3.0: Update to the California Communities Environmental Health Screening Tool (January 2017), *available at* https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf.

If a city or county identifies one or more disadvantaged communities in its jurisdiction, it must include either an "environmental justice element" or "related goals, policies, and objectives integrated in other elements" (collectively, "EJ policies") in its general plan update. (Gov. Code, § 65302(h)(1).) A general plan's EJ policies must "reduce the unique or compounded health risks in disadvantaged communities" by doing at least the following:

1) reduce pollution exposure;
2) improve air quality;
3) promote public facilities;[3]
4) promote food access;
5) promote safe and sanitary homes; and
6) promote physical activity.

(*Id.* at (h)(1)(A).) SB 1000 also requires EJ policies that "promote public engagement in the public decisionmaking process" and "prioritize improvements and programs that address the needs of the disadvantaged communities." (*Id.* at (h)(1)(B)-(C).)

C. Disadvantaged Communities in Kerman

As stated in the Background Report for the General Plan Update, Kerman is an agricultural community with a large Latinx population (81 percent of Kerman's total population). (Background Report, pp. 2-4, 2-10.) Kerman is also a relatively low-income community, with a median household income of $42,046 (33 percent below the state average). (*Id.* at p. 2-5.) Further, 44 percent of Kerman residents do not have a high school diploma. (*Id.* at p. 2-8.) These statistics show that Kerman has a particularly vulnerable population.

According to CalEnviroScreen, both census tracts in Kerman are designated as disadvantaged communities. However, the eastern census tract has an especially high pollution burden (85th percentile). This community is exposed to more particulate matter 2.5 than 95 percent of the state, more ozone than 91 percent of the state, and more pesticides than 89 percent of the state. The Attorney General's Office encourages Kerman to draft tailored EJ policies that will specifically address these and other unique health risks faced by the most impacted neighborhoods in Kerman.

D. Methods and Resources for SB 1000 Compliance

To satisfy SB 1000, Kerman should engage in an open and transparent process that 1) identifies the location of disadvantaged communities in its jurisdiction, 2) determines the unique health risks and pollution burdens of those communities, and 3) proposes EJ policies that specifically address the needs and burdens of those communities and meets SB 1000's minimum

[3] SB 1000 defines "public facilities" as facilities that include "public improvements, public services, and community amenities." (Gov. Code, § 65302(h)(4)(B).)

requirements. One critical resource available to Kerman as it goes through this process are the communities themselves. Kerman should engage with local disadvantaged communities throughout its general plan update process to ensure that its EJ policies address the needs of these communities. To this end, we encourage the City to provide all documents related to the General Plan Update in the native language of local disadvantaged communities and provide translation services at future meetings and hearings.

Kerman should also consult data sources to identify disadvantaged communities, determine the unique health risks of those communities, and draft tailored EJ policies. Similar to CalEnviroScreen, the California Healthy Places Index is a useful tool for identifying community needs, such as access to safe drinking water, clean air, supermarkets, and greenspace.[4] Further, Kerman can look to the Office of Planning and Research's ("OPR") 2017 General Plan Guidelines, which includes several chapters that discuss public engagement techniques and environmental justice.[5] OPR also has draft guidance that further addresses SB 1000 compliance[6] and provides example environmental justice policies from adopted general plans.[7]

We look forward to serving as an additional resource for Kerman as it undergoes its general plan update process. Please do not hesitate to contact my office if you have any questions regarding environmental justice and SB 1000 compliance.

Sincerely,

ABIGAIL BLODGETT
Deputy Attorney General
Bureau of Environmental Justice

For XAVIER BECERRA
Attorney General

---

[4] Public Health Alliance of Southern California, California Health Places Index Map, *available at* https://map.healthyplacesindex.org/.

[5] OPR, 2017 General Plan Guidelines, pgs. 26-38 (Community Engagement and Outreach), 164-194 (Environmental Justice Element), *available at* http://www.opr.ca.gov/planning/general-plan/guidelines.html.

[6] OPR, Draft Environmental Justice Chapter (November 19, 2018), *available at* http://opr.ca.gov/docs/20181120-EJ_Chapter_Public_Comment.pdf.

[7] OPR, Draft Environmental Justice Policies (November 19, 2018), *available at* http://opr.ca.gov/docs/20181120-Draft_for_public_review_example_GPG_Policy_Language.pdf.

TABLE MOUNTAIN RANCHERIA
TRIBAL GOVERNMENT OFFICE

CERTIFIED 7522 8510

August 5, 2019

Olivia Pimentel, Assistant Planner
City of Kerman
850S. Madera Avenue
Kerman, Ca. 93630

RE: City of Kerman General Plan Update Project, City of Kerman

Dear: Olivia Pimentel

This is in response to your letter dated, June 05, 2019, regarding, City of Kerman General Plan Update Project, City of Kerman. Thank you for notifying us of the potential development and the request for consultation.

We decline participation at this time but would appreciate being notified in the unlikely event that cultural resources are identified.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director
rpennell@tmr.org
559.325.0351

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

Richard L. Jones
Tribal Council Member

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

California
Department of Conservation
Division of Land Resource Protection

Gavin Newsom, Governor
David Bunn, Director

April 23, 2019

VIA EMAIL: OPIMENTEL@CITYOFKERMAN.ORG
Olivia Pimentel, Assistant Planner
City of Kerman, Planning Department
850 S. Madera Avenue
Kerman, CA 93630

Dear Ms. Pimentel:

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF KERMAN 2040 GENERAL PLAN UPDATE, SCH# 2019049018

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the City of Kerman 2040 General Plan Update (Project). The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the proposed project's potential impacts on agricultural land and resources.

Project Description

The City of Kerman is undertaking a comprehensive update of its General Plan. The City's current General Plan was most recently updated in 2007. The 2040 General Plan Update will set forth the City's vision of its future and express the goals, policies, and implementation programs that will guide future decisions concerning a variety of issues, including land use, health and safety, and resource conservation out to the year 2040.

Department Comments

The Department recommends the following discussion under the Agricultural Resources section of the Environmental Impact Report:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.

- Potential contract resolutions for land in an agricultural preserve and/or enrolled in a Williamson Act contract affect by proposed changes.
- Proposed mitigation measure for all impacted agricultural lands within the project area.

Although direct conversion of agricultural land is often an unavoidable impact under CEQA analysis, mitigation measures must be considered. In some cases, the argument is made that mitigation cannot reduce impacts to below the level of significance because agricultural land will still be converted by the project, and therefore, mitigation is not required. However, reduction to a level below significance is not a criterion for mitigation under CEQA. Rather, the criterion is feasible mitigation that lessens a project's impacts.

All mitigation measures that are potentially feasible should be considered. A measure brought to the attention of the Lead Agency should not be left out unless it is infeasible based on its elements. The Department suggests that the City consider the adoption of an agricultural land mitigation program that will effectively mitigate the conversion of agricultural land.

Agricultural Mitigation Program

Agricultural conservation easements are an available mitigation tool that the City should consider. The Department highlights easements as a mitigation tool because of their acceptance and use by lead agencies as an appropriate mitigation measure under CEQA and because they follow an established rationale similar to that of wildlife habitat mitigation.

Programs that establish agricultural conservation easements and in-lieu fees for mitigation banking are most effective at conserving comparable quality agricultural land when the easement requirements or fees are determined concurrent with project approval. Should significant time elapse between initial approval and the applicant's receipt of a building or grading permit, conflict may arise over the agricultural quality or value of the land being converted.

Mitigation via agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance. Hence, the search for replacement lands should not be limited strictly to lands within the project's surrounding area.

A source that has proven helpful for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

http://www.calandtrusts.org/resources/conserving-californias-harvest/

Another source is the Division's California Farmland Conservancy Program (CFCP), which has participated in bringing about conservation easements throughout the State of California involving many California land trusts. Any other feasible mitigation measures should also be considered.

Conclusion

Thank you for giving us the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the City of Kerman 2040 Draft General Plan Update. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Environmental Planner at (916) 324-7347 or via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber
Conservation Program Support Supervisor

May 3, 2019

Olivia Pimentel
Assistant Planner
City of Kerman
850 S. Madera Avenue
Kerman, CA 93630

Dear Ms. Pimentel:

Subject: Notice of Preparation of an Environmental Impact Report for the City of Kerman 2040 General Plan Update.

Thank you for the opportunity to review the Notice of Preparation for the subject project:

The Fresno Local Agency Formation Commission (LAFCo) regulates, through approval or denial, the boundary changes proposed by local agencies or individuals. LAFCo's objectives are to:

- Encourage orderly formation and development of agencies;
- Encourage consistency with spheres of influence and recommended reorganization of agencies;
- Encourage orderly urban development and preservation of open space patterns;
- Encourage conservation of prime agricultural lands and open space areas; and
- Identify and address disadvantaged unincorporated communities.

LAFCo should be identified in the City's environmental document as a Responsible Agency under the California Environmental Quality Act (CEQA) whose role is to consider changes of organizations and spheres of influence. Commission action on the annexation request should be noted in the environmental document. As a Responsible Agency, the Commission is required to review and consider the City's environmental analysis prior to taking its action. A Responsible Agency complies with CEQA by considering the environmental analysis prepared by the Lead Agency and by reaching its own conclusions on whether and how to approve the project. The Commission may then make a finding that it independently reviewed and considered the information in the environmental document and it is sufficient to support a determination on the proposed reorganization.

With respect to how prime agricultural land is defined, the CEQA document should consider the definition of "Prime Agricultural Land" as listed within Government Code Section 56064 of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. This definition differs from the California Department of Conservation's definition of Prime Farmland and may be considered more inclusive.

Project-Specific Comments

We have reviewed the City of Kerman General Plan Update Notice of Preparation. It is our understanding that this EIR may be used as the "Master" EIR for future land use entitlement permits and annexation activity. Future development and annexation proposals will require additional environmental reviews to determine compliance with the Master EIR.

The EIR should also consider potential impacts of a Sphere of Influence (SOI) amendment and should identify all special districts that will be affected by the future growth of the City including agencies that will be detached upon annexation or will be expected to continue to serve the City as it grows and the

potential effects of an increase in service delivery capacity for urban growth. Growth within the plan area will require the City to provide a number of different services to the area, including, fire, police, water, sewer, solid waste, parks, and other services. A Service Delivery Plan that will identify how the City will provide these services will be required for consideration as part of any SOI revision or annexation.

The City's EIR should also consider agricultural preservation contracts within the existing and proposed Kerman SOI and its 20-year planning horizon and anticipate the cancelation of such contracts prior to development.

Please note that a municipal service review must be completed prior to the Commission's action on a proposed SOI amendment. The MSR is a comprehensive analysis of all municipal services provide by the City and by other agencies to the City. Much of the information in the MSR may also be found in the City's EIR and service delivery documents that will be prepared or updated for the General Plan update. You are encouraged to contact LAFCo staff at your convenience to be briefed on opportunities to reduce duplication of effort.

Future annexation requests and amendments of the Kerman SOI will be evaluated by the Commission based on the requests' consistency with Government Code (GC) 56000 et seq.,[1] and the Commission's Policies, Standards and Procedures. You are encouraged to review these documents and incorporate their requirements and standards into the project to facilitate future applications to the Commission.[2]

Thank you for the opportunity to provide comments. If you have any questions, please contact me at (559) 600-0604.

Sincerely,

Juan Lara
LAFCo Analyst II

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1 http://www.fresnolafco.org/documents/CKH%20GUIDE%20FINAL%20UPDATE%202017.pdf

2 http://www.fresnolafco.org/documents/Policies%20Manual%2002142019.pdf

County of Fresno

DEPARTMENT OF PUBLIC WORKS AND PLANNING
STEVEN E. WHITE, DIRECTOR

May 6, 2019

Olivia Pimentel, Assistant Planner
City of Kerman, Planning Department
850 S. Madera Avenue
Kerman, CA 93630

SUBJECT: City of Kerman General Plan Update – Notice of Preparation

Dear Ms. Pimentel:

The County of Fresno appreciates the opportunity to review and comment on the subject Notice of Preparation. The County would like to note that the City should annex the entirety of any streets which border any proposed annexation area to prevent a situation where the City and the County would share responsibility.

In addition, the County would like to receive a copy of the Draft Environmental Impact Report and the Draft General Plan Update when such documents are available.

We have no other comments at this time. Thank you again for the opportunity to review this Notice of Preparation.

If you have any questions, you may e-mail me at cmonfette@co.fresno.ca.us or contact me by phone at (559) 600-4245.

Sincerely,

Chrissy Monfette, Planner
Development Services and Capital Projects Division

CMM:
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cc. Bernard Jimenez, Assistant Director, Department of Public Works and Planning
William M. Kettler, Development Services and Capital Projects Division
Chris Motta, Development Services and Capital Projects Division
Marianne Mollring, Development Services and Capital Projects Division

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

April 16, 2019

Olivia Pimentel
City of Kerman
850 South Madera Ave
Kerman, CA 93630

RE: SCH# 2019049018 City of Kerman 2040 General Plan Update, Fresno County

Dear Ms. Pimentel

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   a. A brief description of the project.
   b. The lead agency contact information.
   c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
   d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
   a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   a. Alternatives to the project.
   b. Recommended mitigation measures.
   c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
    a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
    b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
        i. Planning and construction to avoid the resources and protect the cultural and natural context.
        ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
        i. Protecting the cultural character and integrity of the resource.
        ii. Protecting the traditional use of the resource.
        iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

for

Katy Sanchez
Associate Environmental Planner

cc: State Clearinghouse

Rec'd 5/2/19

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

April 29, 2019

Olivia Pimentel
City of Kerman
Planning Department
850 S. Madera Avenue
Kerman, CA 93630

Project: Notice of Preparation of a Draft Program Environmental Impact Report for the City of Kerman 2040 General Plan Update

District CEQA Reference No: 20190418

Dear Ms. Pimentel:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation for the project referenced above. The project consists of updating the City of Kerman's 2040 General Plan to address a range of immediate, mid-term, and long-term issues with which the community is concerned (Project). The City of Kerman 2040 General Plan (Plan) is a program level project and, while Project-specific data may not be available until specific approvals are being granted, the Environmental Impact Report (EIR) should include a discussion of policies, which when implemented, will reduce or mitigate impacts on air quality at the individual project level. To aid the Lead Agency in addressing project-specific issues at the program level, the District offers the following comments and recommendations:

Land Use Planning

1) Nearly all development projects within the San Joaquin Valley Air Basin, from general plans to individual development projects have the potential to generate air pollutants, making it more difficult to attain state and federal ambient air quality standards. Land use decisions are critical to improving air quality within the San Joaquin Valley Air Basin because land use patterns greatly influence transportation needs and motor vehicle emissions are the largest source of air pollution. Land use decisions and project design elements such as preventing urban sprawl, encouraging mix-use development, and project designs that reduce vehicle miles traveled (VMT) have proven benefit for air quality. The District recommends that the Plan include or incorporate by reference, policies that will reduce or mitigate VMT impacts to the extent feasible. VMT can be reduced through encouragement of mixed-use development, walkable communities, etc. Recommended design elements can be found on the District's website at: http://www.valleyair.org/ISR/ISROnSiteMeasures.htm.

Samir Sheikh
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

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www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

To aid agencies in addressing VMT impacts the District has prepared the following guidance documents: *Air Quality Guidelines for General Plans*, and *AB 170 Requirements for General Plans*. These documents provide general information and recommendations for policies that are effective in reducing impacts from growth and development projects. These documents are available on the District's web site at: http://www.valleyair.org/transportation/Guidelines_for_General_Plans.htm.

Emissions Analysis

2) At the federal level for the National Ambient Air Quality Standards (NAAQS), the District is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM2.5 standards; and attainment for the 1-Hour ozone, PM10 and CO standards. At the state level, the District is currently designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 California Ambient Air Quality Standards (CAAQS). The District recommends that the Air Quality section of the Environmental Impact Report (EIR) include a discussion of the following impacts:

   a) **Criteria Pollutants:** Project-related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-Project emissions.

      i) Construction Emissions: Construction emissions are short-term emissions and should be evaluated separately from operational emissions. For reference, the District's annual criteria thresholds of significance for construction are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).

         - *Recommended Mitigation Measure if needed:* To reduce impacts from construction related exhaust emissions, the District recommends feasible mitigation for the Project to utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.

      ii) Operational Emissions: Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. For reference, the annual criteria thresholds of significance for operation of permitted and non-permitted sources each are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).

iii) Recommended Model: Project-related criteria pollutant emissions from construction and operation non-permitted (limited to equipment not subject to District permits) should be identified and quantified. Emissions analysis should be performed using CalEEMod (**Cal**ifornia **E**mission **E**stimator **Mod**el), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com .

b) **Nuisance Odors:** The Project should be evaluated to determine the likelihood that the Project would result in nuisance odors. Nuisance orders are subjective, thus the District has not established thresholds of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration Project design elements and proximity to off-site receptors that potentially would be exposed objectionable odors.

c) **Health Risk Screening/Assessment:** A Health Risk Screening/Assessment identifies potential Toxic Air Contaminants (TAC's) impact on surrounding sensitive receptors such as hospitals, daycare centers, schools, work-sites, and residences. TAC's are air pollutants identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) (https://www.arb.ca.gov/toxics/healthval/healthval.htm) that pose a present or potential hazard to human health. A common source of TACs can be attributed to diesel exhaust emitted from both mobile and stationary sources. Industry specific TACs generated must also be identified and quantified.

The District recommends the Project be evaluated for potential health impacts to surrounding receptors (on-site and off-site) resulting from operational and multi-year construction TAC emissions.

i) The District recommends conducting a screening analysis that includes all sources of emissions. A screening analysis is used to identify projects which may have a significant health impact. A prioritization, using CAPCOA's updated methodology, is the recommended screening method. A prioritization score of 10 or greater is considered to be significant and a refined Health Risk Assessment (HRA) should be performed.

The prioritization calculator can be found at:

http:www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION%20RMR%202016.XLS.

ii) The District recommends a refined HRA for projects that result in a prioritization score of 10 or greater. It is recommended that the Project proponent contact the District to review the proposed modeling protocol. The Project would be considered to have a significant health risk if the HRA demonstrates that the Project-related health impacts would exceed the Districts significance threshold of 20 in a million for carcinogenic risk and 1.0 for the Acute and Chronic Hazard Indices.

Please provide the following information electronically to the District for review:

- HRA AERMOD model files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodology.

More information on toxic emission factors, prioritizations and HRAs can be obtained by:

- E-Mailing inquiries to: hramodeler@valleyair.org; or
- The District can be contacted at (559) 230-6000 for assistance; or
- Visiting the Districts website (Modeling Guidance) at: http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm

d) **Ambient Air Quality Analysis:** An ambient air quality analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of the ambient air quality standards. The District recommends that an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

If an AAQA is performed, the analysis should include emissions from both Project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis. Specific information for assessing significance, including screening tools and modeling guidance is available online at the District's website www.valleyair.org/ceqa.

3) In addition to the discussions on potential impacts identified above, f preliminary review indicates that an EIR should be prepared, the District recommends the EIR also include the following discussions:

a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the Project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for any modeling referenced in the EIR.

b) A discussion of the components and phases of the Project and the associated emission projections, including ongoing emissions from each previous phase.

c) A discussion of Project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the Project.

i) The following policies/mitigation measures are recommended to reduce or mitigate impacts from criteria pollutant emissions:

(1) Use of off-road construction fleets that can achieve fleet average emissions equal to or less than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of Project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier III emissions standard of 4.8 NOx g/hp-hr. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.

(2) For projects exceeding the applicability thresholds identified in Section 2.0 of District Rule 9510, a condition of project approval requiring demonstration of compliance with Rule 9510, prior to the issuance of grading and/or building permits.

(3) For projects subject to District permitting requirements, demonstration of compliance with District Rule 2201, such as a copy of the Authority to Construct (ATC), before issuance of the first building permit, be made a condition of project approval.

ii) The following policies/mitigation measures are recommended to mitigate potential health impacts of individual projects:

(1) Development projects resulting in toxic air contaminant emissions will be located an adequate distance from residential areas and other sensitive receptors in accordance to ARB's *Air Quality and Land Use Handbook: A Community Health Perspective.*

(2) A health risk screening and/or assessment will be performed to assess potential risks to sensitive receptors for the following projects:

(3) Projects whose proposed locations are within the established buffer distances identified in ARB's handbook;

(4) Projects whose land uses are not specifically identified in ARB's handbook (such as shopping centers), but there is sufficient information to reasonably conclude that sensitive receptors would be exposed to significant sources of toxic air contaminants; and

(5) Projects that would otherwise appear to be exempt from CEQA requirements, but there is sufficient information to reasonably conclude that sensitive receptors would be exposed to significant sources of toxic air contaminants, such as industrial use projects allowed by right.

d) A discussion of whether the Project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at: http://valleyair.org/aqinfo/attainment.htm.

District Rules and Regulations

4) District Rule 9510 (Indirect Source Review) is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site fees.

Future individual development project(s) within the Project would be subject to District Rule 9510 if (1) upon full build-out the project would receive a project-level discretionary approval from a public agency and would equal or exceed any one of the applicability thresholds below for example, or (2) would equal or exceed any of the applicability thresholds in section 2.0 of the rule:

- 50 dwelling units
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space; or
- 9,000 square feet of educational space; or
- 10,000 square feet of government space; or
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above

District Rule 9510 also applies to any transportation or transit development projects where construction exhaust emissions equal or exceed two (2.0) tons of NOx or two (2.0) tons of PM10.

In the case the individual development project(s) is/are subject to District Rule 9510, an Air Impact Assessment (AIA) application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, be made a condition of Project approval. Information about how to comply with District Rule 9510 can be found online at: http://www.valleyair.org/ISR/ISRHome.htm. The AIA application form can be found online at: http://www.valleyair.org/ISR/ISRFormsAndApplications.htm.

District staff is available to provide assistance with determining if future individual development projects will be subject to Rule 9510, and can be reached at (559) 230-6000 or by email at ISR@valleyair.org.

5) Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired charbroilers pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons, controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

   Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with under-fired charbroilers can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

   Furthermore, the latest photochemical modeling indicates that reducing commercial charbroiling emissions is critical to achieving attainment of multiple federal PM2.5 standards and associated health benefits in the Valley.

   Therefore, the District strongly recommends new restaurants that will operate under-fired charbroilers install emission control systems during the construction phase since installing charbroiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting. To ease the financial burden for Valley businesses that wish to install control equipment before it is required by District Rule 4692 (Commercial Charbroiling), the District is currently offering substantial incentive funding that covers the full cost of purchasing, installing, and maintaining the system for up to two years. Please contact the District at (559) 230-5800 or technology@valleyair.org for more information.

6) Future individual development projects may also be subject to District regulations including, but limited to: Regulation VIII (Fugitive PM10 Prohibitions), District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4002 (National Emission Standards for Hazardous Air Pollutants), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). To avoid potential delays in project development, the District strongly encourages project proponents to contact the District's Small Business Assistance (SBA) Office early in the planning phase to discuss whether an Authority to Construct (ATC) and Permit to Operate (PTO) are required, and to identify other District rules or regulations that apply to their project.

   The District recommends that a mitigation measure be included that requires, for any project within the scope of this EIR that is subject to District permits, demonstration of compliance with District permitting requirements, such as a copy of the ATC, before issuance of the first building permit, be made a condition of project approval.

7) Future individual development projects may be subject to District Rule 9410 (Employer Based Trip Reduction) if the project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees. Information about how District Rule 9410 can be found online at: www.valleyair.org/tripreduction.htm. For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org

8) The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888. Current District rules can be found online at the District's website at: www.valleyair.org/rules/1ruleslist.htm.

The District recommends that a copy of the District's comments be provided to the Project proponent. If you have any questions or require further information, please call Stephanie Palmer at (559) 230-5820.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Brian Clements
Program Manager

AM: sp

CALIFORNIA
Water Boards

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

May 20, 2019

Ms. Olivia Pimentel
City of Kerman - 1010018
850 South Madera Ave
Kerman, CA 93630

CITY OF KERMAN – COMMENTS TO THE NOTICE OF PREPARATION FOR THE 2040 GENERAL PLAN UPDATE DRAFT ENVIRONMENTAL IMPACT REPORT – SCH NUMBER 2019049018

Dear Ms. Pimentel,

On April 17, 2019, the Fresno District of the State Water Resources Control Board-Division of Drinking Water (Division), received a letter from the State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit about a Notice of Preparation (NOP) for the City of Kerman 2040 General Plan Update draft Environmental Impact Report (EIR). The deadline for the NOP comment period was May 6, 2019. However, the Division is submitting the following comments for consideration by the City of Kerman (City).

The Division is in strong support of sharing local resources, water system consolidation and water system regionalization. It is believed that local, proactive approaches to public water system sustainability will provide for the best outcomes for preserving, enhancing and restoring the quality of California's water resources and drinking water for the benefit of present and future generations.Through a physical or managerial consolidation, the City will aid in supporting smaller neighboring public water systems that do not have the economy of scale to effectively provide water deemed safe and wholesome to their customers. As the City expands with time, the Division recommends the City to consider connecting and providing water service to nearby small disadvantaged public water systems and small water systems with water quality issues or insufficient water supplies.

The Division offers financial assistance for consolidation of small disadvantaged water systems that includes zero interest loans up to ten million dollars, and in some cases, grants. If you would like to more information regarding consolidation incentives, please visit our Water Partnership Toolbox webpage found at:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/partnershiptools.html

If you have any questions regarding this letter, please contact me at (559) 447-3300.

Sincerely,

José A. Robledo, P.E.
Senior Water Resource Control Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

JAR/CK

cc: State of California Governor's Office of Planning and Research State, Clearinghouse and Planning Unit state.clearinghouse@opr.ca.gov