

Appendix B

Air Quality: CalEEMOD Worksheets
Greenhouse Gas Emissions: Calculations Worksheets



Portuguese Bend Zone 2 EIR
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	47	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - Minimum of one acre per lot. Maximum living area of 4,000 square feet per unit.

Construction Phase - Only Demolition is for secondary structures and landscaping. Site preparation would be minimal. Grading would be less than 1000 cubic yards per lot (cut and fill) and no more than 50 cubic yards of imported fill per lot.

Demolition - Only demo is vegetation and secondary units.

Grading - Estimate of 47 lots.

Construction Off-road Equipment Mitigation - Standard.

Off-road Equipment - Phased development of each unit. Assume 1 piece of equipment per site.

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	10.56	84.85	49.34	0.08	18.34	4.28	22.62	9.94	4.28	14.22	0.00	8,233.49	0.00	0.95	0.00	8,253.39
2013	5.37	35.62	25.32	0.05	0.31	2.32	2.63	0.01	2.32	2.33	0.00	4,397.42	0.00	0.48	0.00	4,407.47
2014	4.92	32.94	24.92	0.05	0.31	2.06	2.37	0.01	2.06	2.07	0.00	4,394.16	0.00	0.44	0.00	4,403.39
2015	27.14	30.19	24.56	0.05	0.31	2.55	2.78	0.01	2.55	2.56	0.00	4,390.19	0.00	0.45	0.00	4,399.62
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2012	10.56	84.85	49.34	0.08	8.66	4.28	12.04	3.69	4.28	7.97	0.00	8,233.49	0.00	0.95	0.00	8,253.39
2013	5.37	35.62	25.32	0.05	0.28	2.32	2.60	0.01	2.32	2.33	0.00	4,397.42	0.00	0.48	0.00	4,407.47
2014	4.92	32.94	24.92	0.05	0.28	2.06	2.34	0.01	2.06	2.07	0.00	4,394.16	0.00	0.44	0.00	4,403.39
2015	27.14	30.19	24.56	0.05	0.28	2.55	2.76	0.01	2.55	2.56	0.00	4,390.19	0.00	0.45	0.00	4,399.62
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	lb/day										lb/day					
Area	9.26	0.28	19.56	0.04		0.00	2.51		0.00	2.51	331.67	853.07		1.32	0.02	1,218.75
Energy	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
Mobile	2.65	6.53	26.34	0.05	5.22	0.31	5.53	0.18	0.31	0.49		4,896.58		0.18		4,900.32
Total	11.97	7.31	46.11	0.09	5.22	0.31	8.08	0.18	0.31	3.04	331.67	6,390.23		1.51	0.03	6,763.55

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	lb/day										lb/day					
Area	9.26	0.28	19.56	0.04		0.00	2.51		0.00	2.51	331.67	853.07		1.32	0.02	1,218.75
Energy	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
Mobile	2.65	6.53	26.34	0.05	5.22	0.31	5.53	0.18	0.31	0.49		4,896.58		0.18		4,900.32
Total	11.97	7.31	46.11	0.09	5.22	0.31	8.08	0.18	0.31	3.04	331.67	6,390.23		1.51	0.03	6,763.55

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Clean Paved Roads

3.2 Demolition - 2012

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	lb/day										lb/day					
Fugitive Dust					0.02	0.00	0.02	0.00	0.00	0.00						0.00
Off-Road	9.34	75.14	44.19	0.07		3.80	3.80		3.80	3.80		7,510.81		0.83		7,528.31
Total	9.34	75.14	44.19	0.07	0.02	3.80	3.82	0.00	3.80	3.80		7,510.81		0.83		7,528.31

3.2 Demolition - 2012

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	lb/day										lb/day					
Hauling	0.01	0.06	0.04	0.00	0.12	0.00	0.12	0.00	0.00	0.00		8.38		0.00		8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.11	1.27	0.00	0.23	0.01	0.24	0.01	0.01	0.02		196.50		0.01		196.76
Total	0.12	0.17	1.31	0.00	0.35	0.01	0.36	0.01	0.01	0.02		204.88		0.01		205.15

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	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	9.34	75.14	44.19	0.07		3.80	3.80		3.80	3.80	0.00	7,510.81		0.83		7,528.31
Total	9.34	75.14	44.19	0.07	0.01	3.80	3.81	0.00	3.80	3.80	0.00	7,510.81		0.83		7,528.31

3.2 Demolition - 2012

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	lb/day										lb/day					
Hauling	0.01	0.06	0.04	0.00	0.10	0.00	0.11	0.00	0.00	0.00		8.38		0.00		8.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.11	0.11	1.27	0.00	0.21	0.01	0.22	0.01	0.01	0.02		196.50		0.01		196.76
Total	0.12	0.17	1.31	0.00	0.31	0.01	0.33	0.01	0.01	0.02		204.88		0.01		205.15

3.3 Site Preparation - 2012

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	lb/day										lb/day					
Fugitive Dust					18.07	0.00	18.07	9.93	0.00	9.93						0.00
Off-Road	10.43	84.72	47.82	0.07		4.27	4.27		4.27	4.27		7,997.69		0.93		8,017.28
Total	10.43	84.72	47.82	0.07	18.07	4.27	22.34	9.93	4.27	14.20		7,997.69		0.93		8,017.28

3.3 Site Preparation - 2012

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.13	1.53	0.00	0.28	0.01	0.29	0.01	0.01	0.02		235.80		0.01		236.11
Total	0.13	0.13	1.53	0.00	0.28	0.01	0.29	0.01	0.01	0.02		235.80		0.01		236.11

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	lb/day										lb/day					
Fugitive Dust					6.69	0.00	6.69	3.68	0.00	3.68						0.00
Off-Road	10.43	84.72	47.82	0.07		4.27	4.27		4.27	4.27	0.00	7,997.69		0.93		8,017.28
Total	10.43	84.72	47.82	0.07	6.69	4.27	10.96	3.68	4.27	7.95	0.00	7,997.69		0.93		8,017.28

3.3 Site Preparation - 2012

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.13	0.13	1.53	0.00	0.25	0.01	0.26	0.01	0.01	0.02		235.80		0.01		236.11
Total	0.13	0.13	1.53	0.00	0.25	0.01	0.26	0.01	0.01	0.02		235.80		0.01		236.11

3.4 Grading - 2012

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	lb/day										lb/day					
Fugitive Dust					6.25	0.00	6.25	3.31	0.00	3.31						0.00
Off-Road	8.20	68.22	36.58	0.07		3.26	3.26		3.26	3.26		6,980.68		0.73		6,996.11
Total	8.20	68.22	36.58	0.07	6.25	3.26	9.51	3.31	3.26	6.57		6,980.68		0.73		6,996.11

3.4 Grading - 2012

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	lb/day										lb/day					
Hauling	0.25	2.39	1.41	0.00	6.85	0.11	6.96	0.01	0.11	0.12		328.69		0.01		328.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	1.10	0.00	0.20	0.01	0.21	0.01	0.01	0.01		170.30		0.01		170.52
Total	0.34	2.48	2.51	0.00	7.05	0.12	7.17	0.02	0.12	0.13		498.99		0.02		499.46

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	lb/day										lb/day					
Fugitive Dust					2.32	0.00	2.32	1.23	0.00	1.23						0.00
Off-Road	8.20	68.22	36.58	0.07		3.26	3.26		3.26	3.26	0.00	6,980.68		0.73		6,996.11
Total	8.20	68.22	36.58	0.07	2.32	3.26	5.58	1.23	3.26	4.49	0.00	6,980.68		0.73		6,996.11

3.4 Grading - 2012

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	lb/day										lb/day					
Hauling	0.25	2.39	1.41	0.00	6.17	0.11	6.28	0.01	0.11	0.12		328.69		0.01		328.94
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.09	1.10	0.00	0.18	0.01	0.19	0.01	0.01	0.01		170.30		0.01		170.52
Total	0.34	2.48	2.51	0.00	6.35	0.12	6.47	0.02	0.12	0.13		498.99		0.02		499.46

3.5 Building Construction - 2012

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	lb/day										lb/day					
Off-Road	5.63	37.37	23.73	0.04		2.54	2.54		2.54	2.54		4,040.62		0.51		4,051.23
Total	5.63	37.37	23.73	0.04		2.54	2.54		2.54	2.54		4,040.62		0.51		4,051.23

3.5 Building Construction - 2012

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.09	0.93	0.62	0.00	0.05	0.03	0.08	0.00	0.03	0.04		137.94		0.00		138.03
Worker	0.12	0.12	1.44	0.00	0.26	0.01	0.27	0.01	0.01	0.02		222.70		0.01		222.99
Total	0.21	1.05	2.06	0.00	0.31	0.04	0.35	0.01	0.04	0.06		360.64		0.01		361.02

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	lb/day										lb/day					
Off-Road	5.63	37.37	23.73	0.04		2.54	2.54		2.54	2.54	0.00	4,040.62		0.51		4,051.23
Total	5.63	37.37	23.73	0.04		2.54	2.54		2.54	2.54	0.00	4,040.62		0.51		4,051.23

3.5 Building Construction - 2012

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.09	0.93	0.62	0.00	0.04	0.03	0.08	0.00	0.03	0.04		137.94		0.00		138.03
Worker	0.12	0.12	1.44	0.00	0.24	0.01	0.24	0.01	0.01	0.02		222.70		0.01		222.99
Total	0.21	1.05	2.06	0.00	0.28	0.04	0.32	0.01	0.04	0.06		360.64		0.01		361.02

3.5 Building Construction - 2013

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	lb/day										lb/day					
Off-Road	5.17	34.66	23.45	0.04		2.28	2.28		2.28	2.28		4,040.62		0.46		4,050.31
Total	5.17	34.66	23.45	0.04		2.28	2.28		2.28	2.28		4,040.62		0.46		4,050.31

3.5 Building Construction - 2013

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.08	0.85	0.55	0.00	0.05	0.03	0.08	0.00	0.03	0.03		138.38		0.00		138.46
Worker	0.11	0.11	1.32	0.00	0.26	0.01	0.27	0.01	0.01	0.02		218.42		0.01		218.70
Total	0.19	0.96	1.87	0.00	0.31	0.04	0.35	0.01	0.04	0.05		356.80		0.01		357.16

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	lb/day										lb/day					
Off-Road	5.17	34.66	23.45	0.04		2.28	2.28		2.28	2.28	0.00	4,040.62		0.46		4,050.31
Total	5.17	34.66	23.45	0.04		2.28	2.28		2.28	2.28	0.00	4,040.62		0.46		4,050.31

3.5 Building Construction - 2013

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.08	0.85	0.55	0.00	0.04	0.03	0.07	0.00	0.03	0.03		138.38		0.00		138.46
Worker	0.11	0.11	1.32	0.00	0.24	0.01	0.24	0.01	0.01	0.02		218.42		0.01		218.70
Total	0.19	0.96	1.87	0.00	0.28	0.04	0.31	0.01	0.04	0.05		356.80		0.01		357.16

3.5 Building Construction - 2014

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	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02		4,040.61		0.42		4,049.51

3.5 Building Construction - 2014

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.77	0.50	0.00	0.05	0.03	0.07	0.00	0.03	0.03		138.65		0.00		138.73
Worker	0.11	0.10	1.22	0.00	0.26	0.01	0.27	0.01	0.01	0.02		214.89		0.01		215.15
Total	0.18	0.87	1.72	0.00	0.31	0.04	0.34	0.01	0.04	0.05		353.54		0.01		353.88

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	lb/day										lb/day					
Off-Road	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51
Total	4.74	32.06	23.20	0.04		2.02	2.02		2.02	2.02	0.00	4,040.61		0.42		4,049.51

3.5 Building Construction - 2014

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.77	0.50	0.00	0.04	0.03	0.07	0.00	0.03	0.03		138.65		0.00		138.73
Worker	0.11	0.10	1.22	0.00	0.24	0.01	0.24	0.01	0.01	0.02		214.89		0.01		215.15
Total	0.18	0.87	1.72	0.00	0.28	0.04	0.31	0.01	0.04	0.05		353.54		0.01		353.88

3.5 Building Construction - 2015

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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80		4,040.61		0.39		4,048.81

3.5 Building Construction - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.70	0.45	0.00	0.05	0.02	0.07	0.00	0.02	0.03		138.99		0.00		139.06
Worker	0.10	0.09	1.12	0.00	0.26	0.01	0.27	0.01	0.01	0.02		210.58		0.01		210.82
Total	0.17	0.79	1.57	0.00	0.31	0.03	0.34	0.01	0.03	0.05		349.57		0.01		349.88

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	lb/day										lb/day					
Off-Road	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81
Total	4.34	29.16	22.98	0.04		1.80	1.80		1.80	1.80	0.00	4,040.61		0.39		4,048.81

3.5 Building Construction - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.07	0.70	0.45	0.00	0.04	0.02	0.07	0.00	0.02	0.03		138.99		0.00		139.06
Worker	0.10	0.09	1.12	0.00	0.24	0.01	0.25	0.01	0.01	0.02		210.58		0.01		210.82
Total	0.17	0.79	1.57	0.00	0.28	0.03	0.32	0.01	0.03	0.05		349.57		0.01		349.88

3.6 Paving - 2015

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	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54		2,917.65		0.44		2,926.87

3.6 Paving - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.99	0.00	0.23	0.01	0.24	0.01	0.01	0.02		185.81		0.01		186.02
Total	0.09	0.08	0.99	0.00	0.23	0.01	0.24	0.01	0.01	0.02		185.81		0.01		186.02

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	lb/day										lb/day					
Off-Road	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	4.89	30.10	20.54	0.03		2.54	2.54		2.54	2.54	0.00	2,917.65		0.44		2,926.87

3.6 Paving - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.09	0.08	0.99	0.00	0.21	0.01	0.22	0.01	0.01	0.02		185.81		0.01		186.02
Total	0.09	0.08	0.99	0.00	0.21	0.01	0.22	0.01	0.01	0.02		185.81		0.01		186.02

3.7 Architectural Coating - 2015

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	lb/day										lb/day					
Archit. Coating	26.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	27.12	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96

3.7 Architectural Coating - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		37.16		0.00		37.20
Total	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		37.16		0.00		37.20

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	lb/day										lb/day					
Archit. Coating	26.71					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	27.12	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96

3.7 Architectural Coating - 2015

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	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Worker	0.02	0.02	0.20	0.00	0.04	0.00	0.04	0.00	0.00	0.00		37.16		0.00		37.20
Total	0.02	0.02	0.20	0.00	0.04	0.00	0.04	0.00	0.00	0.00		37.16		0.00		37.20

4.0 Mobile Detail

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	lb/day										lb/day					
Mitigated	2.65	6.53	26.34	0.05	5.22	0.31	5.53	0.18	0.31	0.49		4,896.58		0.18		4,900.32
Unmitigated	2.65	6.53	26.34	0.05	5.22	0.31	5.53	0.18	0.31	0.49		4,896.58		0.18		4,900.32
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	449.79	473.76	412.19	1,491,574	1,491,574
Total	449.79	473.76	412.19	1,491,574	1,491,574

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60

5.0 Energy Detail

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	lb/day										lb/day					
NaturalGas Mitigated	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
NaturalGas Unmitigated	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	lb/day										lb/day					
Single Family Housing	5444.97	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
Total		0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48

5.2 Energy by Land Use - Natural Gas

Mitigated

	Natural Gas 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	lb/day										lb/day					
Single Family Housing	5.44497	0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48
Total		0.06	0.50	0.21	0.00		0.00	0.04		0.00	0.04		640.58		0.01	0.01	644.48

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	lb/day										lb/day					
Mitigated	9.26	0.28	19.56	0.04		0.00	2.51		0.00	2.51	331.67	853.07		1.32	0.02	1,218.75
Unmitigated	9.26	0.28	19.56	0.04		0.00	2.51		0.00	2.51	331.67	853.07		1.32	0.02	1,218.75
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	lb/day										lb/day						
Architectural Coating	0.40					0.00	0.00		0.00	0.00							0.00
Consumer Products	3.72					0.00	0.00		0.00	0.00							0.00
Hearth	5.00	0.23	15.56	0.04		0.00	2.49		0.00	2.48	331.67	846.00		1.31	0.02		1,211.53
Landscaping	0.13	0.05	4.00	0.00		0.00	0.02		0.00	0.02		7.07		0.01			7.22
Total	9.25	0.28	19.56	0.04		0.00	2.51		0.00	2.50	331.67	853.07		1.32	0.02		1,218.75

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	lb/day										lb/day						
Architectural Coating	0.40					0.00	0.00		0.00	0.00							0.00
Consumer Products	3.72					0.00	0.00		0.00	0.00							0.00
Hearth	5.00	0.23	15.56	0.04		0.00	2.49		0.00	2.48	331.67	846.00		1.31	0.02		1,211.53
Landscaping	0.13	0.05	4.00	0.00		0.00	0.02		0.00	0.02		7.07		0.01			7.22
Total	9.25	0.28	19.56	0.04		0.00	2.51		0.00	2.50	331.67	853.07		1.32	0.02		1,218.75

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Portuguese Bend Zone 2 EIR
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Single Family Housing	47	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Utility Company	Southern California Edison
Climate Zone	8	Precipitation Freq (Days)	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - Minimum of one acre per lot. Maximum living area of 4,000 square feet per unit.

Construction Phase - Only Demolition is for secondary structures and landscaping. Site preparation would be minimal. Grading would be less than 1000 cubic yards per lot (cut and fill) and no more than 50 cubic yards of imported fill per lot.

Off-road Equipment - Phased development of each unit. Assume 1 piece of equipment per site.

Demolition - Only demo is vegetation and secondary units.

Grading - Estimate of 47 lots.

Construction Off-road Equipment Mitigation - Standard.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2012	1.03	7.84	4.71	0.01	0.77	0.42	1.19	0.28	0.42	0.70	0.00	751.62	751.62	0.08	0.00	753.36
2013	0.70	4.65	3.30	0.01	0.04	0.30	0.34	0.00	0.30	0.30	0.00	519.08	519.08	0.06	0.00	520.27
2014	0.64	4.30	3.25	0.01	0.04	0.27	0.30	0.00	0.27	0.27	0.00	518.72	518.72	0.05	0.00	519.81
2015	1.14	2.58	2.02	0.00	0.02	0.18	0.20	0.00	0.18	0.18	0.00	307.46	307.46	0.03	0.00	308.14
Total	3.51	19.37	13.28	0.03	0.87	1.17	2.03	0.28	1.17	1.45	0.00	2,096.88	2,096.88	0.22	0.00	2,101.58

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					
2012	1.03	7.84	4.71	0.01	0.42	0.42	0.85	0.10	0.42	0.53	0.00	751.62	751.62	0.08	0.00	753.36
2013	0.70	4.65	3.30	0.01	0.03	0.30	0.34	0.00	0.30	0.30	0.00	519.08	519.08	0.06	0.00	520.27
2014	0.64	4.30	3.25	0.01	0.03	0.27	0.30	0.00	0.27	0.27	0.00	518.72	518.72	0.05	0.00	519.81
2015	1.14	2.58	2.02	0.00	0.02	0.18	0.20	0.00	0.18	0.18	0.00	307.46	307.46	0.03	0.00	308.14
Total	3.51	19.37	13.28	0.03	0.50	1.17	1.69	0.10	1.17	1.28	0.00	2,096.88	2,096.88	0.22	0.00	2,101.58

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	0.93	0.01	1.02	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50
Energy	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	194.28	194.28	0.01	0.00	195.48
Mobile	0.46	1.13	4.49	0.01	0.80	0.05	0.86	0.03	0.05	0.08	0.00	731.98	731.98	0.03	0.00	732.58
Waste						0.00	0.00		0.00	0.00	11.15	0.00	11.15	0.66	0.00	24.99
Water						0.00	0.00		0.00	0.00	0.00	17.87	17.87	0.09	0.00	20.66
Total	1.40	1.23	5.55	0.01	0.80	0.05	0.92	0.03	0.05	0.14	16.14	974.08	990.22	0.81	0.00	1,009.21

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	0.93	0.01	1.02	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50
Energy	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	194.28	194.28	0.01	0.00	195.48
Mobile	0.46	1.13	4.49	0.01	0.80	0.05	0.86	0.03	0.05	0.08	0.00	731.98	731.98	0.03	0.00	732.58
Waste						0.00	0.00		0.00	0.00	11.15	0.00	11.15	0.66	0.00	24.99
Water						0.00	0.00		0.00	0.00	0.00	17.87	17.87	0.09	0.00	20.66
Total	1.40	1.23	5.55	0.01	0.80	0.05	0.92	0.03	0.05	0.14	16.14	974.08	990.22	0.81	0.00	1,009.21

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Clean Paved Roads

3.2 Demolition - 2012

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.23	1.88	1.10	0.00		0.09	0.09		0.09	0.09	0.00	170.30	170.30	0.02	0.00	170.69
Total	0.23	1.88	1.10	0.00	0.00	0.09	0.09	0.00	0.09	0.09	0.00	170.30	170.30	0.02	0.00	170.69

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.23	4.23	0.00	0.00	4.23
Total	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.42	4.42	0.00	0.00	4.42

3.2 Demolition - 2012

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.23	1.88	1.10	0.00		0.09	0.09		0.09	0.09	0.00	170.30	170.30	0.02	0.00	170.69
Total	0.23	1.88	1.10	0.00	0.00	0.09	0.09	0.00	0.09	0.09	0.00	170.30	170.30	0.02	0.00	170.69

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.00	0.00	0.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.23	4.23	0.00	0.00	4.23
Total	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.42	4.42	0.00	0.00	4.42

3.3 Site Preparation - 2012

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					0.27	0.00	0.27	0.15	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.27	0.72	0.00		0.06	0.06		0.06	0.06	0.00	108.80	108.80	0.01	0.00	109.07
Total	0.16	1.27	0.72	0.00	0.27	0.06	0.33	0.15	0.06	0.21	0.00	108.80	108.80	0.01	0.00	109.07

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	3.04	0.00	0.00	3.05
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	3.04	0.00	0.00	3.05

3.3 Site Preparation - 2012

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					0.10	0.00	0.10	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.27	0.72	0.00		0.06	0.06		0.06	0.06	0.00	108.80	108.80	0.01	0.00	109.07
Total	0.16	1.27	0.72	0.00	0.10	0.06	0.16	0.06	0.06	0.12	0.00	108.80	108.80	0.01	0.00	109.07

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	3.04	0.00	0.00	3.05
Total	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.04	3.04	0.00	0.00	3.05

3.4 Grading - 2012

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					0.23	0.00	0.23	0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.31	2.56	1.37	0.00		0.12	0.12		0.12	0.12	0.00	237.41	237.41	0.02	0.00	237.94
Total	0.31	2.56	1.37	0.00	0.23	0.12	0.35	0.13	0.12	0.25	0.00	237.41	237.41	0.02	0.00	237.94

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	0.01	0.09	0.06	0.00	0.23	0.00	0.23	0.00	0.00	0.00	0.00	11.16	11.16	0.00	0.00	11.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.49	5.49	0.00	0.00	5.50
Total	0.01	0.09	0.10	0.00	0.24	0.00	0.24	0.00	0.00	0.00	0.00	16.65	16.65	0.00	0.00	16.67

3.4 Grading - 2012

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					0.09	0.00	0.09	0.05	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.31	2.56	1.37	0.00		0.12	0.12		0.12	0.12	0.00	237.41	237.41	0.02	0.00	237.94
Total	0.31	2.56	1.37	0.00	0.09	0.12	0.21	0.05	0.12	0.17	0.00	237.41	237.41	0.02	0.00	237.94

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	0.01	0.09	0.06	0.00	0.21	0.00	0.21	0.00	0.00	0.00	0.00	11.16	11.16	0.00	0.00	11.17
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.04	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.49	5.49	0.00	0.00	5.50
Total	0.01	0.09	0.10	0.00	0.22	0.00	0.22	0.00	0.00	0.00	0.00	16.65	16.65	0.00	0.00	16.67

3.5 Building Construction - 2012

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	0.30	1.98	1.26	0.00		0.13	0.13		0.13	0.13	0.00	194.22	194.22	0.02	0.00	194.73
Total	0.30	1.98	1.26	0.00		0.13	0.13		0.13	0.13	0.00	194.22	194.22	0.02	0.00	194.73

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.61	6.61	0.00	0.00	6.62
Worker	0.01	0.01	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.15	10.15	0.00	0.00	10.17
Total	0.01	0.06	0.11	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.76	16.76	0.00	0.00	16.79

3.5 Building Construction - 2012

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	0.30	1.98	1.26	0.00		0.13	0.13		0.13	0.13	0.00	194.22	194.22	0.02	0.00	194.73
Total	0.30	1.98	1.26	0.00		0.13	0.13		0.13	0.13	0.00	194.22	194.22	0.02	0.00	194.73

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.61	6.61	0.00	0.00	6.62
Worker	0.01	0.01	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.15	10.15	0.00	0.00	10.17
Total	0.01	0.06	0.11	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.76	16.76	0.00	0.00	16.79

3.5 Building Construction - 2013

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	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38
Total	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.11	0.08	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34
Worker	0.01	0.02	0.17	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	24.52	24.52	0.00	0.00	24.55
Total	0.02	0.13	0.25	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	40.85	40.85	0.00	0.00	40.89

3.5 Building Construction - 2013

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	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38
Total	0.67	4.52	3.06	0.01		0.30	0.30		0.30	0.30	0.00	478.23	478.23	0.05	0.00	479.38

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.11	0.08	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	16.33	16.33	0.00	0.00	16.34
Worker	0.01	0.02	0.17	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	24.52	24.52	0.00	0.00	24.55
Total	0.02	0.13	0.25	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	40.85	40.85	0.00	0.00	40.89

3.5 Building Construction - 2014

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	0.62	4.18	3.03	0.01		0.26	0.26		0.26	0.26	0.00	478.23	478.23	0.05	0.00	479.28
Total	0.62	4.18	3.03	0.01		0.26	0.26		0.26	0.26	0.00	478.23	478.23	0.05	0.00	479.28

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.10	0.07	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	16.36	16.36	0.00	0.00	16.37
Worker	0.01	0.01	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	24.13	24.13	0.00	0.00	24.16
Total	0.02	0.11	0.22	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	40.49	40.49	0.00	0.00	40.53

3.5 Building Construction - 2014

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	0.62	4.18	3.03	0.01		0.26	0.26		0.26	0.26	0.00	478.23	478.23	0.05	0.00	479.28
Total	0.62	4.18	3.03	0.01		0.26	0.26		0.26	0.26	0.00	478.23	478.23	0.05	0.00	479.28

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.10	0.07	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	16.36	16.36	0.00	0.00	16.37
Worker	0.01	0.01	0.15	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	24.13	24.13	0.00	0.00	24.16
Total	0.02	0.11	0.22	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	40.49	40.49	0.00	0.00	40.53

3.5 Building Construction - 2015

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	0.24	1.63	1.29	0.00		0.10	0.10		0.10	0.10	0.00	205.22	205.22	0.02	0.00	205.63
Total	0.24	1.63	1.29	0.00		0.10	0.10		0.10	0.10	0.00	205.22	205.22	0.02	0.00	205.63

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.04	7.04	0.00	0.00	7.04
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.14	10.14	0.00	0.00	10.16
Total	0.01	0.05	0.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	17.18	17.18	0.00	0.00	17.20

3.5 Building Construction - 2015

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	0.24	1.63	1.29	0.00		0.10	0.10		0.10	0.10	0.00	205.22	205.22	0.02	0.00	205.63
Total	0.24	1.63	1.29	0.00		0.10	0.10		0.10	0.10	0.00	205.22	205.22	0.02	0.00	205.63

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.04	7.04	0.00	0.00	7.04
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	10.14	10.14	0.00	0.00	10.16
Total	0.01	0.05	0.09	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	17.18	17.18	0.00	0.00	17.20

3.6 Paving - 2015

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	0.13	0.83	0.56	0.00		0.07	0.07		0.07	0.07	0.00	72.77	72.77	0.01	0.00	73.00
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.83	0.56	0.00		0.07	0.07		0.07	0.07	0.00	72.77	72.77	0.01	0.00	73.00

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.40	4.40	0.00	0.00	4.40
Total	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.40	4.40	0.00	0.00	4.40

3.6 Paving - 2015

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	0.13	0.83	0.56	0.00		0.07	0.07		0.07	0.07	0.00	72.77	72.77	0.01	0.00	73.00
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.13	0.83	0.56	0.00		0.07	0.07		0.07	0.07	0.00	72.77	72.77	0.01	0.00	73.00

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.40	4.40	0.00	0.00	4.40
Total	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	4.40	4.40	0.00	0.00	4.40

3.7 Architectural Coating - 2015

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	0.73					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	0.00	7.03
Total	0.74	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	0.00	7.03

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.88
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.88

3.7 Architectural Coating - 2015

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	0.73					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	0.00	7.03
Total	0.74	0.07	0.05	0.00		0.01	0.01		0.01	0.01	0.00	7.01	7.01	0.00	0.00	0.00	7.03

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.88
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.88

4.0 Mobile Detail

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	0.46	1.13	4.49	0.01	0.80	0.05	0.86	0.03	0.05	0.08	0.00	731.98	731.98	0.03	0.00	732.58
Unmitigated	0.46	1.13	4.49	0.01	0.80	0.05	0.86	0.03	0.05	0.08	0.00	731.98	731.98	0.03	0.00	732.58
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	449.79	473.76	412.19	1,491,574	1,491,574
Total	449.79	473.76	412.19	1,491,574	1,491,574

4.3 Trip Type Information

Land Use	Miles			Trip %		
	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
Single Family Housing	12.70	7.00	9.50	40.20	19.20	40.60

5.0 Energy Detail

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						0.00	0.00		0.00	0.00	0.00	88.22	88.22	0.00	0.00	88.78
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	88.22	88.22	0.00	0.00	88.78
NaturalGas Mitigated	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70
NaturalGas Unmitigated	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	tons/yr										MT/yr					
Single Family Housing	1.98741e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70
Total		0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70

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	tons/yr										MT/yr					
Single Family Housing	1.98741e+006	0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70
Total		0.01	0.09	0.04	0.00		0.00	0.01		0.00	0.01	0.00	106.06	106.06	0.00	0.00	106.70

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	303308					88.22	0.00	0.00	88.78
Total						88.22	0.00	0.00	88.78

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Single Family Housing	303308					88.22	0.00	0.00	88.78
Total						88.22	0.00	0.00	88.78

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	0.93	0.01	1.02	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50
Unmitigated	0.93	0.01	1.02	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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	0.07					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.16	0.00	0.30	0.00		0.00	0.05		0.00	0.05	4.99	28.78	33.77	0.02	0.00	34.31
Landscaping	0.02	0.01	0.73	0.00		0.00	0.00		0.00	0.00	0.00	1.17	1.17	0.00	0.00	1.19
Total	0.93	0.01	1.03	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50

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	0.07					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.68					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.16	0.00	0.30	0.00		0.00	0.05		0.00	0.05	4.99	28.78	33.77	0.02	0.00	34.31
Landscaping	0.02	0.01	0.73	0.00		0.00	0.00		0.00	0.00	0.00	1.17	1.17	0.00	0.00	1.19
Total	0.93	0.01	1.03	0.00		0.00	0.05		0.00	0.05	4.99	29.95	34.94	0.02	0.00	35.50

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					17.87	0.09	0.00	20.66
Unmitigated					17.87	0.09	0.00	20.66
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	3.06224 / 1.93054					17.87	0.09	0.00	20.66
Total						17.87	0.09	0.00	20.66

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Single Family Housing	3.06224 / 1.93054					17.87	0.09	0.00	20.66
Total						17.87	0.09	0.00	20.66

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					11.15	0.66	0.00	24.99
Unmitigated					11.15	0.66	0.00	24.99
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	54.94					11.15	0.66	0.00	24.99
Total						11.15	0.66	0.00	24.99

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Single Family Housing	54.94					11.15	0.66	0.00	24.99
Total						11.15	0.66	0.00	24.99

9.0 Vegetation

Greenhouse Gas Emission Worksheet
N2O Mobile Emissions

Portuguese Bend

From URBEMIS 2007 Vehicle Fleet Mix Output:

Annual VMT: 1,491,574

Vehicle Type	Percent Type	CH4 Emission Factor (g/mile)*	CH4 Emission (g/mile)**	N2O Emission Factor (g/mile)*	N2O Emission (g/mile)**
Light Auto	48.6%	0.04	0.01944	0.04	0.01944
Light Truck < 3750 lbs	10.9%	0.05	0.00545	0.06	0.00654
Light Truck 3751-5750 lbs	21.8%	0.05	0.0109	0.06	0.01308
Med Truck 5751-8500 lbs	9.6%	0.12	0.01152	0.2	0.0192
Lite-Heavy Truck 8501-10,000 lbs	1.7%	0.12	0.00204	0.2	0.0034
Lite-Heavy Truck 10,001-14,000 lbs	0.7%	0.09	0.00063	0.125	0.000875
Med-Heavy Truck 14,001-33,000 lbs	1.0%	0.06	0.0006	0.05	0.0005
Heavy-Heavy Truck 33,001-60,000 lbs	0.9%	0.06	0.00054	0.05	0.00045
Other Bus	0.1%	0.06	0.00006	0.05	0.00005
Urban Bus	0.1%	0.06	0.00006	0.05	0.00005
Motorcycle	3.5%	0.09	0.00315	0.01	0.00035
School Bus	0.1%	0.06	0.00006	0.05	0.00005
Motor Home	1.0%	0.09	0.0009	0.125	0.00125
Total	100.0%		0.05535		0.065235

Total Emissions (metric tons) =

Emission Factor by Vehicle Mix (g/mi) x Annual VMT(mi) x 0.000001 metric tons/g

Conversion to Carbon Dioxide Equivalency (CO2e) Units based on Global Warming Potential (GWP)

CH4 21 GWP
 N2O 310 GWP
 1 ton (short, US) = 0.90718474 metric ton

Annual Mobile Emissions:

	Total Emissions	Total CO2e units
N2O Emissions:	0.0973 metric tons N2O	30 metric tons CO2e
Project Total:		30 metric tons CO2e

References

- * from Table C.4: Methane and Nitrous Oxide Emission Factors for Mobile Sources by Vehicle and Fuel Type (g/mile). in California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009. Assume Model year 2000-present, gasoline fueled.
- ** Source: California Climate Action Registry General Reporting Protocol, Reporting Entity-Wide Greenhouse Gas Emissions, Version 3.1, January 2009.
- *** From URBEMIS 2007 results for mobile sources