



slo

2035



LAND USE &
CIRCULATION
UPDATE

APPENDIX G: AIR QUALITY MODELING

Please see the next page.

SLOGPU_AirQuality-short-term-construction

San Luis Obispo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	93.70	1000sqft	2.15	93,700.00	0
Industrial Park	44.60	1000sqft	1.02	44,600.00	0
City Park	2.62	Acre	2.62	114,127.20	0
Apartments Low Rise	124.00	Dwelling Unit	7.75	124,000.00	355
Single Family Housing	121.00	Dwelling Unit	39.29	217,800.00	346
Strip Mall	96.00	1000sqft	2.20	96,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.2	Precipitation Freq (Days)	44
Climate Zone	3			Operational Year	2015

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MW/hr)	641.35	CH4 Intensity (lb/MW/hr)	0.029	N2O Intensity (lb/MW/hr)	0.006
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1.3 User Entered Comments & Non-Default Data

Project Characteristics - City of SLO LUCE Update. This model run to estimate average-annual, worst-case 2015 construction emissions only for 20 year build-out conditions (2015-2035).
 Land Use Inputs based on EIR Project Description, Table 2.4-4 Total Future Development Capacity within the Planning Subarea. Totals divided by 20 year period.
 Construction Phasing based on total 1 year construction schedule for all land use types

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	75.00	197.00

tblConstructionPhase	NumDays	1,110.00	197.00
tblConstructionPhase	NumDays	110.00	20.00
tblConstructionPhase	NumDays	75.00	22.00
tblConstructionPhase	NumDays	40.00	22.00
tblConstructionPhase	PhaseEndDate	10/3/2016	12/31/2015
tblConstructionPhase	PhaseEndDate	2/27/2015	3/1/2015
tblConstructionPhase	PhaseEndDate	1/30/2015	1/31/2015
tblConstructionPhase	PhaseStartDate	1/1/2016	4/1/2015
tblConstructionPhase	PhaseStartDate	3/2/2015	3/1/2015
tblGrading	AcresOfGrading	50.00	275.00
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
2015	102.0046	104.4796	68.4046	0.0880	20.9500	5.2200	26.1699	9.9779	4.8023	12.8205	0.0000	9,167.816	9,167.8167	2.6564	0.0000	9,223.6004
Total	102.0046	104.4796	68.4046	0.0880	20.9500	5.2200	26.1699	9.9779	4.8023	12.8205	0.0000	9,167.816	9,167.8167	2.6564	0.0000	9,223.6004

Mitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
2015	102.0046	104.4796	68.4046	0.0880	20.9500	5.2200	26.1699	9.9779	4.8023	12.8205	0.0000	7	9,167.8167	2.6564	0.0000	9,223.6004
Total	102.0046	104.4796	68.4046	0.0880	20.9500	5.2200	26.1699	9.9779	4.8023	12.8205	0.0000	7	9,167.8167	2.6564	0.0000	9,223.6004

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

2.2 Overall Operational Unmitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Area	20.5742	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451
Energy	0.2537	2.2162	1.2735	0.0138	0.1753	0.1753	0.1753	0.1753	0.1753	0.1753	2,768.1238	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9707
Mobile	33.3334	72.3500	290.3000	0.4321	29.8094	0.8879	30.6973	7.9708	0.8140	8.7849	39,047.9950	39,047.9950	39,047.9950	2.0245	0.0000	39,090.5088
Total	54.1613	74.8090	312.1903	0.4470	29.8094	1.1736	30.9830	7.9708	1.0997	9.0705	0.0000	59	41,852.5659	2.1155	0.0508	41,912.7240

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day									
Area	20.5742	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451					
Energy	0.2537	2.2162	1.2735	0.0138	0.1753	0.1753	0.1753	0.1753	0.1753	2.7681238	2.7681238	0.0531	0.0508	2.7849701						
Mobile	33.3334	72.3500	290.3000	0.4321	29.8094	0.8879	30.6973	7.9708	0.8140	8.7849	39.04799	39.047995	2.0245	139.090508						
Total	54.1613	74.8090	312.1903	0.4470	29.8094	1.1736	30.9830	7.9708	1.0997	9.0705	41.85256	41.852565	2.1155	0.0508	41.912724					

ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
0.00	0.00	0.00	0.00	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	Site Preparation	Site Preparation	1/1/2015	11/31/2015	5	221	
2	Grading	Grading	2/1/2015	3/1/2015	5	20	
3	Paving	Paving	3/1/2015	3/31/2015	5	22	
4	Building Construction	Building Construction	4/1/2015	12/31/2015	5	197	
5	Architectural Coating	Architectural Coating	4/1/2015	12/31/2015	5	197	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 275

Acres of Paving: 0

Residential Indoor: 692,145; Residential Outdoor: 230,715; Non-Residential Indoor: 522,641; Non-Residential Outdoor: 174,214

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	31	8.00	255	0.40

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	226	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
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
Site Preparation	7	18.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	260.00	83.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	52.00	0.00	0.00	13.00	5.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

**3.2 Site Preparation - 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															
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2609	56.8897	42.6318	0.0391	3.0883	3.0883	3.0883	2.8412	2.8412	2.8412		4,111.7444	4,111.7444	1.2275		4,137.5225
Total	5.2609	56.8897	42.6318	0.0391	18.0663	3.0883	21.1545	9.9307	2.8412	12.7719		4,111.7444	4,111.7444	1.2275		4,137.5225

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															
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
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
Worker	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486			175.7186	0.0110		175.9497
Total	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486			175.7186	0.0110		175.9497

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															

Fugitive Dust	18.0663	0.0000	18.0663	9.9307	0.0000	9.9307	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.2609	42.6318	0.0391	3.0883	2.8412	2.8412	0.0000	4,111.7444	4,111.7444	1.2275	4,137.5224	4,137.5224
Total	5.2609	42.6318	0.0391	18.0663	3.0883	21.1545	9.9307	2.8412	4,111.7444	1.2275	4,137.5224	4,137.5224

Mitigated Construction Off-Site

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486	175.7186	175.7186	175.7186	0.0110		175.9497
Total	0.0950	0.1322	1.3302	2.0400e-003	0.1780	1.5200e-003	0.1795	0.0472	1.3700e-003	0.0486	175.7186	175.7186	175.7186	0.0110		175.9497

3.3 Grading - 2015

Unmitigated Construction On-Site

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Fugitive Dust	20.6040	0.0000	20.6040	0.0000	4.8847	0.0000	4.8847	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618	3.8022	3.8022	3.8022	3.4980	3.4980	3.4980	6,486.2433	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	6.7751	79.0467	50.8400	0.0618	20.6040	3.8022	24.4062	4.8847	3.4980	8.3827	6,486.2433	6,486.2433	6,486.2433	1.9364		6,526.9080

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
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	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540	195.2429	195.2429	195.2429	0.0122	0.0122	195.4996
Total	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540	195.2429	195.2429	195.2429	0.0122	0.0122	195.4996

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Fugitive Dust					20.6040	0.0000	20.6040	4.8847	0.0000	4.8847			0.0000			0.0000
Off-Road	6.7751	79.0467	50.8400	0.0618	3.8022	3.8022	3.8022	3.4980	3.4980	3.4980	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080
Total	6.7751	79.0467	50.8400	0.0618	20.6040	3.8022	24.4062	4.8847	3.4980	8.3827	0.0000	6,486.2433	6,486.2433	1.9364		6,526.9080

Mitigated Construction Off-Site

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

Category	lb/day										lb/day						
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	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	0.0000
Worker	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540	195.2429	195.2429	0.0122	195.4996	195.4996	0.0122	195.4996
Total	0.1055	0.1469	1.4780	2.2600e-003	0.1977	1.6900e-003	0.1994	0.0524	1.5200e-003	0.0540	195.2429	195.2429	0.0122	195.4996	195.4996	0.0122	195.4996

3.4 Paving - 2015

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	2.3172	25.1758	14.9781	0.0223	1.4148	1.4148	1.4148	1.3016	1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		4	4	0.0000		0.0000
Total	2.3172	25.1758	14.9781	0.0223	1.4148	1.4148	1.4148	1.3016	1.3016	1.3016		2,339.8984	2,339.8984	0.6986		2,354.5681

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
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
Worker	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405	146.4322	146.4322	9.1700e-003	9.1700e-003		146.6247

Total	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405	146.4322	146.4322	9.1700e-003	146.6247
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Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Off-Road	2.3172	25.1758	14.9781	0.0223	1.4148	1.4148	1.4148	1.3016	1.3016	1.3016	0.0000	12,339.8984	12,339.8984	0.6986		12,354.5681
Paving	0.0000				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		4	0.0000			0.0000
Total	2.3172	25.1758	14.9781	0.0223	1.4148	1.4148	1.4148	1.3016	1.3016	1.3016	0.0000	2,339.8984	2,339.8984	0.6986		2,354.5681

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
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
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
Worker	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247
Total	0.0792	0.1102	1.1085	1.7000e-003	0.1483	1.2700e-003	0.1496	0.0393	1.1400e-003	0.0405		146.4322	146.4322	9.1700e-003		146.6247

3.5 Building Construction - 2015
Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Off-Road	3.6591	30.0299	18.7446	0.0268	2.1167	2.1167	2.1167	1.9904	1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483
Total	3.6591	30.0299	18.7446	0.0268	2.1167	2.1167	2.1167	1.9904	1.9904	1.9904		2,689.5771	2,689.5771	0.6748		2,703.7483

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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
Vendor	1.0214	7.5482	9.9752	0.0142	0.3780	0.1190	0.4970	0.1079	0.1094	0.2173		1,428.0491	1,428.0490	0.0136		1,428.3356
Worker	1.3719	1.9101	19.2142	0.0294	2.5704	0.0220	2.5924	0.6817	0.0198	0.7015		2,538.1571	2,538.1576	0.1589		2,541.4950
Total	2.3933	9.4583	29.1894	0.0436	2.9483	0.1410	3.0893	0.7896	0.1292	0.9188		3,966.2067	3,966.2067	0.1726		3,969.8306

Mitigated Construction On-Site

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

Off-Road	3.6591	30.0299	18.7446	0.0268	2.1167	1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748	2,703.7483
Total	3.6591	30.0299	18.7446	0.0268	2.1167	1.9904	1.9904	0.0000	2,689.5771	2,689.5771	0.6748	2,703.7483

Mitigated Construction Off-Site

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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	1.0214	7.5482	9.9752	0.0142	0.3780	0.1190	0.4970	0.1079	0.1094	0.2173	1,428.0490	1,428.0490	1,428.0490	0.0136	1,428.3356	1,428.3356
Worker	1.3719	1.9101	19.2142	0.0294	2.5704	0.0220	2.5924	0.6817	0.0198	0.7015	2,538.1576	2,538.1576	2,538.1576	0.1589	2,541.4950	2,541.4950
Total	2.3933	9.4583	29.1894	0.0436	2.9483	0.1410	3.0893	0.7896	0.1292	0.9188	3,966.2067	3,966.2067	3,966.2067	0.1726	3,969.8306	3,969.8306

**3.6 Architectural Coating - 2015
Unmitigated Construction On-Site**

Category	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Archit. Coating	95.2713				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003	0.2209	0.2209	0.2209	0.2209	0.2209	0.2209	281.4481	281.4481	281.4481	0.0367	282.2177	282.2177
Total	95.6779	2.5703	1.9018	2.9700e-003	0.2209	0.2209	0.2209	0.2209	0.2209	0.2209	281.4481	281.4481	281.4481	0.0367	282.2177	282.2177

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
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	0.2744	0.3820	3.8428	5.8800e-003	0.5141	4.4000e-003	0.5185	0.1363	3.9600e-003	0.1403	507.6315	507.6315	507.6315	0.0318		508.2990
Total	0.2744	0.3820	3.8428	5.8800e-003	0.5141	4.4000e-003	0.5185	0.1363	3.9600e-003	0.1403	507.6315	507.6315	507.6315	0.0318		508.2990

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
lb/day																
Archit. Coating	95.2713				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003	0.2209	0.2209	0.2209	0.2209	0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177
Total	95.6779	2.5703	1.9018	2.9700e-003	0.2209	0.2209	0.2209	0.2209	0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.2177

Mitigated Construction Off-Site

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

Category	lb/day											
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
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
Worker	0.2744	0.3820	3.8428	5.8800e-003	0.5141	4.4000e-003	0.1363	0.1363	3.9600e-003	0.1403	507.6315	507.6315
Total	0.2744	0.3820	3.8428	5.8800e-003	0.5141	4.4000e-003	0.1363	0.1363	3.9600e-003	0.1403	507.6315	507.6315

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	lb/day											
Mitigated	33.3334	72.3500	290.3000	0.4321	29.8094	0.8879	30.6973	7.9708	0.8140	8.7849	39,047.99	39,047.995
Unmitigated	33.3334	72.3500	290.3000	0.4321	29.8094	0.8879	30.6973	7.9708	0.8140	8.7849	39,047.99	39,047.995
Total	66.6668	144.7000	580.6000	0.8642	59.6188	1.7758	61.3946	15.9416	1.6280	17.5698	78,095.98	78,095.990

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT		Mitigated Annual VMT	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments Low Rise	817.16	887.84	752.68	2,079,110	2,079,110	2,079,110	2,079,110
City Park	4.17	4.17	4.17	8,466	8,466	8,466	8,466
General Office Building	1,031.64	222.07	91.83	1,778,341	1,778,341	1,778,341	1,778,341
Industrial Park	310.42	111.05	32.56	717,973	717,973	717,973	717,973
Single Family Housing	1,157.97	1,219.68	1061.17	2,930,307	2,930,307	2,930,307	2,930,307
Strip Mall	4,254.72	4,035.84	1961.28	4,956,748	4,956,748	4,956,748	4,956,748
Total	7,576.07	6,480.65	3,903.68	12,470,944	12,470,944	12,470,944	12,470,944

4.3 Trip Type Information

Land Use	Miles				Trip %				Trip Purpose %			
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3			
City Park	13.00	5.00	5.00	33.00	48.00	19.00	66	28	6			
General Office Building	13.00	5.00	5.00	33.00	48.00	19.00	77	19	4			
Industrial Park	13.00	5.00	5.00	59.00	28.00	13.00	79	19	2			
Single Family Housing	13.00	5.00	5.00	35.80	21.00	43.20	86	11	3			
Strip Mall	13.00	5.00	5.00	16.60	64.40	19.00	45	40	15			

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.455853	0.042424	0.214936	0.151343	0.068369	0.010021	0.017172	0.021892	0.002320	0.001408	0.008721	0.000858	0.004683

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
NaturalGas	0.2537	2.2162	1.2735	0.0138	0.1753	0.1753	0.1753	0.1753	0.1753	0.1753	2,768.123	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9701
Mitigated												8				
NaturalGas	0.2537	2.2162	1.2735	0.0138	0.1753	0.1753	0.1753	0.1753	0.1753	0.1753	2,768.123	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9701
Unmitigated												8				

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	lb/day																
Apartment Low Rise	5008.95	0.0540	0.4616	0.1964	2.9500e-003	0.0373	0.0373	0.0373	0.0373	0.0373	0.0373	589.2880	589.2880	589.2880	0.0113	0.0108	592.8743
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3522.09	0.0380	0.3453	0.2901	2.0700e-003	0.0262	0.0262	0.0262	0.0262	0.0262	0.0262	414.3639	414.3639	414.3639	7.9400e-003	7.6000e-003	416.8857
Industrial Park	1676.47	0.0181	0.1644	0.1381	9.9000e-004	0.0125	0.0125	0.0125	0.0125	0.0125	0.0125	197.2319	197.2319	197.2319	3.7800e-003	3.6200e-003	198.4322
Single Family Housing	10388.9	0.1120	0.9574	0.4074	6.1100e-003	0.0774	0.0774	0.0774	0.0774	0.0774	0.0774	1,222.2279	1,222.2279	1,222.2279	0.0234	0.0224	1,229.6662
Strip Mall	2932.6	0.0316	0.2875	0.2415	1.7300e-003	0.0219	0.0219	0.0219	0.0219	0.0219	0.0219	345.0121	345.0121	345.0121	6.6100e-003	6.3300e-003	347.1118
Total		0.2538	2.2162	1.2735	0.0139	0.1753	0.1753	0.1753	0.1753	0.1753	0.1753	2,768.1238	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9701

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	lb/day																
City Park	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	3522.09	0.0380	0.3453	0.2901	2.0700e-003	0.0262	0.0262	0.0262	0.0262	0.0262	0.0262	414.3639	414.3639	414.3639	7.9400e-003	7.6000e-003	416.8857
Industrial Park	1676.47	0.0181	0.1644	0.1381	9.9000e-004	0.0125	0.0125	0.0125	0.0125	0.0125	0.0125	197.2319	197.2319	197.2319	3.7800e-003	3.6200e-003	198.4322
Single Family Housing	10388.9	0.1120	0.9574	0.4074	6.1100e-003	0.0774	0.0774	0.0774	0.0774	0.0774	0.0774	1,222.2279	1,222.2279	1,222.2279	0.0234	0.0224	1,229.6662
Strip Mall	2932.6	0.0316	0.2875	0.2415	1.7300e-003	0.0219	0.0219	0.0219	0.0219	0.0219	0.0219	345.0121	345.0121	345.0121	6.6100e-003	6.3300e-003	347.1118
Total		0.2538	2.2162	1.2735	0.0139	0.1753	0.1753	0.1753	0.1753	0.1753	0.1753	2,768.1238	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9701

Total	0.2538	2.2162	1.2735	0.0139	0.1753	0.1753	0.1753	0.1753	2,768.1238	2,768.1238	0.0531	0.0508	2,784.9701
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6.0 Area Detail

6.1 Mitigation Measures Area

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated	20.5742	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451
Unmitigated	20.5742	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451

6.2 Area by SubCategory

Unmitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Architectural Coating	5.1420				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7709				0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Landscaping	0.6612	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103		36.4472	36.4472	0.0380		37.2451
Total	20.5741	0.2428	20.6169	1.0700e-003	0.1103	0.1103	0.1103	0.1103	0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day															
Architectural Coating	5.1420					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7709					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000
Landscaping	0.6612	0.2428	20.6169	1.0700e-003		0.1103	0.1103		0.1103	0.1103	36.4472		36.4472	0.0380		37.2451
Total	20.5741	0.2428	20.6169	1.0700e-003		0.1103	0.1103		0.1103	0.1103	0.0000	36.4472	36.4472	0.0380	0.0000	37.2451

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Vegetation