

Appendix E

Air Quality Emissions Calculator



APPENDIX E

Air Quality Emission Calculations

Introduction

Appendix E provides additional detail on the URBEMIS 2002 Air Pollution Emission Model data used for the draft EIR air quality analysis.

APPENDIX AQ

Air Quality Analysis

Introduction to the Air Quality Models and Results

Several air quality models were used to quantify criteria pollutant emissions during construction activities associated with the project. The URBEMIS2007, version 9.2.2, model was used to calculate emissions of ROG, NO_x, CO, CO₂, PM-10, and PM-2.5 from area sources (not for operational (vehicles) emissions) (**Section 1**) for the Proposed Project specific land use information provided by the applicant. In **Section 2**, CARB's EMFAC2007 emission factors are presented for on-road vehicles in Sacramento County for the year 2005 (baseline) and the year 2030 (buildout) and were used to calculate the emissions generated by the total vehicle miles traveled (VMT) associated with each scenario.

SECTION 1 – URBEMIS2007 MODEL RESULTS

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\mxm\Desktop\203100 - City of Galt GPlAQ modeling\URBEMIS2007\city of galt 2030.urb9

Project Name: City of Galt GP

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	3,753.69	909.41	20,369.47	66.06	3,282.45	3,159.58	1,201,656.15

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	10,402.45	17,188.62	115,080.16	75.10	14,929.35	2,910.47	7,539,125.84

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	14,156.14	18,098.03	135,449.63	141.16	18,211.80	6,070.05	8,740,781.99

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	32.10	426.90	259.21	0.00	0.80	0.79	530,642.26
Hearth	2,215.47	482.51	20,110.26	66.06	3,281.65	3,158.79	671,013.89
Landscaping - No Winter Emissions							
Consumer Products	1,100.75						
Architectural Coatings	405.37						
TOTALS (lbs/day, unmitigated)	3,753.69	909.41	20,369.47	66.06	3,282.45	3,159.58	1,201,656.15

[Area Source Changes to Defaults](#)

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	124.39	203.43	1,389.96	0.90	176.96	34.54	90,058.35
Apartments mid rise	430.53	700.58	4,786.85	3.09	609.43	118.94	310,150.10
Condo/townhouse general	1,483.90	2,421.39	16,544.66	10.70	2,106.36	411.09	1,071,963.11
Elementary school	21.41	35.47	236.76	0.16	30.86	6.02	15,580.37
Junior high school	20.37	33.73	225.16	0.15	29.35	5.72	14,816.94
High school	18.30	30.24	201.45	0.13	26.25	5.12	13,231.75
Library	74.68	123.96	824.75	0.54	107.47	20.94	54,115.77
Place of worship	12.59	20.73	137.84	0.09	17.96	3.50	9,040.73
City park	13.07	20.57	136.88	0.09	17.84	3.48	8,981.03
Regnl shop. center	6,262.53	10,385.50	69,050.83	45.08	8,996.50	1,753.08	4,527,863.01
General office building	332.14	550.56	3,686.09	2.42	480.72	93.73	243,186.62
Government office building	97.32	161.72	1,077.29	0.70	140.39	27.36	70,757.51
Medical office building	50.43	83.67	556.96	0.36	72.58	14.14	36,559.64
General light industry	1,460.79	2,417.07	16,224.68	10.69	2,116.68	412.81	1,072,820.91
TOTALS (lbs/day, unmitigated)	10,402.45	17,188.62	115,080.16	75.10	14,929.35	2,910.47	7,539,125.84

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Temperature (F): 50 Season: Winter

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	1,615.00	11.03	dwelling units	1,085.00	11,967.55	102,318.96
Apartments mid rise	295.00	6.46	dwelling units	6,380.00	41,214.80	352,374.18
Condo/townhouse general	2,705.00	8.42	dwelling units	16,918.00	142,449.56	1,217,901.04
Elementary school		14.49	1000 sq ft	154.00	2,231.46	17,851.68
Junior high school		13.78	1000 sq ft	154.00	2,122.12	16,976.96
High school		12.89	1000 sq ft	154.00	1,985.06	15,185.71
Library		54.00	1000 sq ft	154.00	8,316.00	62,162.10
Place of worship		9.11	1000 sq ft	154.00	1,402.94	10,388.77
City park		1.59	acres	868.00	1,380.12	10,316.40
Regnl shop. center		42.94	1000 sq ft	16,443.90	706,101.06	5,203,964.95
General office building		11.01	1000 sq ft	2,962.08	32,612.50	278,021.59
Government office building		68.93	1000 sq ft	154.00	10,615.22	81,206.44
Medical office building		36.13	1000 sq ft	154.00	5,564.02	41,980.53
General light industry		6.97	1000 sq ft	19,405.98	135,259.68	1,224,100.13
					1,103,222.09	8,634,749.44

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.0	2.0	97.6	0.4
Light Truck < 3750 lbs	10.9	3.7	90.8	5.5
Light Truck 3751-5750 lbs	21.7	0.9	98.6	0.5

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med Truck 5751-8500 lbs	9.5	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	77.1	22.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Junior high school				20.0	10.0	70.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
High school				10.0	5.0	85.0
Library				5.0	2.5	92.5
Place of worship				3.0	1.5	95.5
City park				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Government office building				10.0	5.0	85.0
Medical office building				7.0	3.5	89.5
General light industry				50.0	25.0	25.0

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\mxm\Desktop\203100 - City of Galt GPlAQ modeling\URBEMIS2007\city of galt 2030.urb9

Project Name: City of Galt GP

Project Location: Sacramento County AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	372.50	94.13	876.46	2.69	134.42	129.38	119,732.33

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	1,918.85	2,449.37	23,229.03	15.99	2,724.60	531.15	1,593,622.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	2,291.35	2,543.50	24,105.49	18.68	2,859.02	660.53	1,713,354.92

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}	CO ₂
Natural Gas	5.86	77.91	47.31	0.00	0.15	0.14	96,842.21
Hearth	90.84	16.15	822.98	2.69	134.25	129.22	22,879.83
Landscape	0.93	0.07	6.17	0.00	0.02	0.02	10.29
Consumer Products	200.89						
Architectural Coatings	73.98						
TOTALS (tons/year, unmitigated)	372.50	94.13	876.46	2.69	134.42	129.38	119,732.33

[Area Source Changes to Defaults](#)

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Single family housing	23.67	28.98	282.42	0.19	32.30	6.30	19,015.70
Apartments mid rise	87.65	99.82	972.64	0.66	111.22	21.71	65,487.79
Condo/townhouse general	291.05	345.00	3,361.69	2.27	384.41	75.02	226,343.62
Elementary school	3.99	5.05	47.89	0.03	5.63	1.10	3,293.56
Junior high school	3.82	4.81	45.55	0.03	5.36	1.04	3,132.18
High school	3.46	4.31	40.59	0.03	4.79	0.93	2,797.71
Library	13.07	17.67	165.80	0.11	19.61	3.82	11,443.60
Place of worship	2.48	2.95	27.69	0.02	3.28	0.64	1,911.89
City park	4.12	2.93	27.52	0.02	3.25	0.63	1,899.17
Regnl shop. center	1,103.59	1,480.40	13,862.70	9.60	1,641.86	319.94	957,557.15
General office building	63.31	78.40	749.71	0.52	87.73	17.11	51,392.10
Government office building	16.95	23.05	217.04	0.15	25.62	4.99	14,960.93
Medical office building	8.94	11.92	112.07	0.08	13.25	2.58	7,730.71
General light industry	292.75	344.08	3,315.72	2.28	386.29	75.34	226,656.48
TOTALS (tons/year, unmitigated)	1,918.85	2,449.37	23,229.03	15.99	2,724.60	531.15	1,593,622.59

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2030 Season: Annual

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	1,615.00	11.03	dwelling units	1,085.00	11,967.55	102,318.96
Apartments mid rise	295.00	6.46	dwelling units	6,380.00	41,214.80	352,374.18
Condo/townhouse general	2,705.00	8.42	dwelling units	16,918.00	142,449.56	1,217,901.04
Elementary school		14.49	1000 sq ft	154.00	2,231.46	17,851.68
Junior high school		13.78	1000 sq ft	154.00	2,122.12	16,976.96
High school		12.89	1000 sq ft	154.00	1,985.06	15,185.71
Library		54.00	1000 sq ft	154.00	8,316.00	62,162.10
Place of worship		9.11	1000 sq ft	154.00	1,402.94	10,388.77
City park		1.59	acres	868.00	1,380.12	10,316.40
Regnl shop. center		42.94	1000 sq ft	16,443.90	706,101.06	5,203,964.95
General office building		11.01	1000 sq ft	2,962.08	32,612.50	278,021.59
Government office building		68.93	1000 sq ft	154.00	10,615.22	81,206.44
Medical office building		36.13	1000 sq ft	154.00	5,564.02	41,980.53
General light industry		6.97	1000 sq ft	19,405.98	135,259.68	1,224,100.13
					1,103,222.09	8,634,749.44

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	49.0	2.0	97.6	0.4
Light Truck < 3750 lbs	10.9	3.7	90.8	5.5
Light Truck 3751-5750 lbs	21.7	0.9	98.6	0.5

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med Truck 5751-8500 lbs	9.5	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.6	0.0	50.0	50.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	77.1	22.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	10.8	7.3	7.3
Rural Trip Length (miles)	15.0	10.0	10.0	15.0	10.0	10.0
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
Junior high school				20.0	10.0	70.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
High school				10.0	5.0	85.0
Library				5.0	2.5	92.5
Place of worship				3.0	1.5	95.5
City park				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Government office building				10.0	5.0	85.0
Medical office building				7.0	3.5	89.5
General light industry				50.0	25.0	25.0

SECTION 2 – EMFAC2007 MODEL RESULTS

Air Quality Analysis for Mobile Emissions City of Galt On-Road Emissions - Year 2005

EMFAC2007 Emission Factors (g/mi)

35 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.148	0.166	0.209	0.737	0.558	2.423
NOx	0.244	0.383	0.814	10.302	7.857	0.794
CO	3.728	4.343	4.588	8.103	5.693	31.018
CO2	392.934	474.599	622.747	1456.696	1731.833	110.847
PM10	0.029	0.036	0.038	0.474	0.149	0.042

55 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.133	0.148	0.172	0.599	0.395	3.723
NOx	0.252	0.406	0.965	11.658	11.778	0.919
CO	3.368	3.977	4.444	7.224	5.711	65.892
CO2	399.972	482.734	633.296	1388.187	1736.38	97.455
PM10	0.028	0.034	0.035	0.446	0.122	0.058

65 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.171	0.189	0.21	0.78	0.422	6.086
NOx	0.283	0.475	1.227	13.991	19.181	0.984
CO	3.865	4.631	5.582	9.562	8.012	131.154
CO2	488.507	587.898	778.108	1447.052	1829.371	102.309
PM10	0.03	0.037	0.038	0.5555	0.131	0.088

Paved Road
lbs/VMT
Entrained
PM10
0.00147977

Year 2005
Total Daily VMT = 556,800

Trip Percentages by Category (from URBEMIS)		
Type	Percent	# VMT
LDA	49.00%	272832
LDT	32.60%	181516.8
MDT	9.50%	52896
HDT	4.10%	22828.8
BUS	1.30%	7238.4
MCY	3.50%	19488
Total	100.00%	556800

Emissions = Emission Factor x Miles/Day

Mobile Emissions for the Year 2005 - Assuming 20% @ 35mph, 60% @ 55mph, 20% @ 65mph

	ROG	NOx	CO	CO2	PM10
LDA					
2005 emissions (grams/mile)	0.1436	0.2566	3.5394	416.2714	0.0286
2005 emissions (pounds/mile)	3.17E-04	5.66E-04	7.80E-03	9.18E-01	1.54E-03
VMT/Day	Mobile Emissions (lbs/day)				
272832	86.37	154.34	2128.90	250381.18	420.93
LDT					
2005 emissions (grams/mile)	0.1598	0.4152	4.181	502.1398	0.035
2005 emissions (pounds/mile)	3.52E-04	9.15E-04	9.22E-03	1.11E+00	1.56E-03
VMT/Day	Mobile Emissions (lbs/day)				
181516.8	63.95	166.15	1673.12	200942.26	282.61
MDT					
2005 emissions (grams/mile)	0.187	0.9872	4.7004	660.1486	0.0362
2005 emissions (pounds/mile)	4.12E-04	2.18E-03	1.04E-02	1.46E+00	1.56E-03
VMT/Day	Mobile Emissions (lbs/day)				
52896	21.81	115.12	548.13	76982.91	82.50
HDT					
2005 emissions (grams/mile)	0.6628	11.8534	7.8674	1413.6618	0.4735
2005 emissions (pounds/mile)	1.46E-03	2.61E-02	1.73E-02	3.12E+00	2.52E-03
VMT/Day	Mobile Emissions (lbs/day)				
22828.8	33.36	596.56	395.95	71147.30	57.61
BUS					
2005 emissions (grams/mile)	0.433	12.4744	6.1676	1754.0688	0.1292
2005 emissions (pounds/mile)	9.55E-04	2.75E-02	1.36E-02	3.87E+00	1.76E-03
VMT/Day	Mobile Emissions (lbs/day)				
7238.4	6.91	199.06	98.42	27991.04	12.77
MCY					
2005 emissions (grams/mile)	3.9356	0.907	71.9696	101.1042	0.0608
2005 emissions (pounds/mile)	8.68E-03	2.00E-03	1.59E-01	2.23E-01	1.61E-03
VMT/Day	Mobile Emissions (lbs/day)				
19488	169.09	38.97	3092.05	4343.76	31.45

2005 - Operational Traffic Total Emissions (lbs/day)				
ROG	NOx	CO	CO2	PM10
381	1,270	7,937	631,788	888
2005 - Operational Traffic Total Emissions (tons/year)				
ROG	NOx	CO	CO2	PM10
70	232	1,449	104,600	162

* Note: CO2 in metric tons

**Air Quality Analysis for Mobile Emissions
City of Galt On-Road Emissions - Year 2030**

EMFAC2007 Emission Factors (g/mi)

35 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.009	0.016	0.027	0.148	0.269	1.827
NOx	0.028	0.053	0.136	1.28	3.689	0.672
CO	0.557	0.886	1.111	1.018	2.791	16.231
CO2	387.896	485.371	622.562	1482.613	1510.266	139.89
PM10	0.03	0.039	0.043	0.119	0.086	0.024

55 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.008	0.013	0.021	0.1	0.191	2.723
NOx	0.027	0.052	0.158	1.333	5.389	0.758
CO	0.419	0.668	0.854	1.02	2.799	28.47
CO2	395.142	494.116	633.35	1416.61	1514.986	171.332
PM10	0.028	0.036	0.04	0.124	0.072	0.031

65 mph	LDA	LDT	MDT	HDT	BUS	MCY
ROG	0.01	0.017	0.026	0.098	0.204	4.492
NOx	0.03	0.058	0.201	1.651	8.513	0.844
CO	0.371	0.593	0.792	1.253	3.927	52.92
CO2	482.402	603.487	782.808	1468.225	1611.512	235.649
PM10	0.031	0.041	0.044	0.139	0.076	0.044

Paved Road
lbs/VMT
Entrained
PM10
0.00147977

Year 2030
Total Daily VMT = 1,272,918

Trip Percentages by Category (from URBEMIS d)		
Type	Percent	# VMT
LDA	49.00%	623729.82
LDT	32.60%	414971.27
MDT	9.50%	120927.21
HDT	4.10%	52189.638
BUS	1.30%	16547.934
MCY	3.50%	44552.13
Total	100.00%	1272918

Emissions = Emission Factor x Miles/Day

Mobile Emissions for the Year 2030 - Assuming 20% @ 35mph, 60% @ 55mph, 20% @ 65mph

	ROG	NOx	CO	CO2	PM10	
LDA	2030 emissions (grams/mile)	0.0086	0.0278	0.437	411.1448	0.029
	2030 emissions (pounds/mile)	1.90E-05	6.13E-05	9.63E-04	9.06E-01	1.54E-03
	VMT/Day	623729.82	11.83	38.23	600.91	565354.84
Mobile Emissions (lbs/day)						
LDT	2030 emissions (grams/mile)	0.0144	0.0534	0.6966	514.2412	0.0376
	2030 emissions (pounds/mile)	3.17E-05	1.18E-04	1.54E-03	1.13E+00	1.56E-03
	VMT/Day	414971.27	13.17	48.85	637.28	470451.33
Mobile Emissions (lbs/day)						
MDT	2030 emissions (grams/mile)	0.0232	0.1622	0.893	661.084	0.0414
	2030 emissions (pounds/mile)	5.11E-05	3.58E-04	1.97E-03	1.46E+00	1.57E-03
	VMT/Day	120927.21	6.19	43.24	238.07	176242.43
Mobile Emissions (lbs/day)						
HDT	2030 emissions (grams/mile)	0.1092	1.386	1.0662	1440.1336	0.126
	2030 emissions (pounds/mile)	2.41E-04	3.06E-03	2.35E-03	3.17E+00	1.76E-03
	VMT/Day	52189.638	12.56	159.47	122.67	165697.85
Mobile Emissions (lbs/day)						
BUS	2030 emissions (grams/mile)	0.2092	5.6738	3.023	1533.3472	0.0756
	2030 emissions (pounds/mile)	4.61E-04	1.25E-02	6.66E-03	3.38E+00	1.65E-03
	VMT/Day	16547.934	7.63	206.99	110.28	55938.92
Mobile Emissions (lbs/day)						
MCY	2030 emissions (grams/mile)	2.8976	0.758	30.9122	177.907	0.0322
	2030 emissions (pounds/mile)	6.39E-03	1.67E-03	6.81E-02	3.92E-01	1.55E-03
	VMT/Day	44552.13	284.60	74.45	3036.18	17473.96
Mobile Emissions (lbs/day)						

2030 - Operational Traffic Total Emissions (lbs/day)				
ROG	NOx	CO	CO2	PM10
336	571	4,745	1,451,159	1,989
2030 - Operational Traffic Total Emissions (tons/year)				
ROG	NOx	CO	CO2	PM10
61	104	866	240,256	363

* Note: CO2 in metric tons