

San Antonio Residential Development - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**San Antonio Residential Development  
South Coast AQMD Air District, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	4.00	Dwelling Unit	0.55	24,000.00	11
Other Non-Asphalt Surfaces	0.64	Acre	0.64	27,996.01	0
Other Asphalt Surfaces	5.82	Acre	5.82	253,519.20	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	10			<b>Operational Year</b>	2022
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	531.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -  
 Land Use - Per Site Plan.  
 Construction Phase - No demolition required.

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	7,200.00	24,000.00
tblLandUse	LotAcreage	1.30	0.55

**2.0 Emissions Summary**

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**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					
2022	0.1733	1.5144	1.5958	3.4800e-003	0.2726	0.0700	0.3425	0.1127	0.0655	0.1782	0.0000	311.0834	311.0834	0.0523	9.8100e-003	315.3123
2023	0.2402	0.9802	1.2709	2.7500e-003	0.0890	0.0435	0.1325	0.0240	0.0409	0.0648	0.0000	245.6316	245.6316	0.0385	7.8400e-003	248.9314
<b>Maximum</b>	<b>0.2402</b>	<b>1.5144</b>	<b>1.5958</b>	<b>3.4800e-003</b>	<b>0.2726</b>	<b>0.0700</b>	<b>0.3425</b>	<b>0.1127</b>	<b>0.0655</b>	<b>0.1782</b>	<b>0.0000</b>	<b>311.0834</b>	<b>311.0834</b>	<b>0.0523</b>	<b>9.8100e-003</b>	<b>315.3123</b>

**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					
2022	0.1733	1.5144	1.5958	3.4800e-003	0.2726	0.0700	0.3425	0.1127	0.0655	0.1782	0.0000	311.0832	311.0832	0.0523	9.8100e-003	315.3121
2023	0.2402	0.9802	1.2709	2.7500e-003	0.0890	0.0435	0.1325	0.0240	0.0409	0.0648	0.0000	245.6315	245.6315	0.0385	7.8400e-003	248.9312
<b>Maximum</b>	<b>0.2402</b>	<b>1.5144</b>	<b>1.5958</b>	<b>3.4800e-003</b>	<b>0.2726</b>	<b>0.0700</b>	<b>0.3425</b>	<b>0.1127</b>	<b>0.0655</b>	<b>0.1782</b>	<b>0.0000</b>	<b>311.0832</b>	<b>311.0832</b>	<b>0.0523</b>	<b>9.8100e-003</b>	<b>315.3121</b>

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-30-2022	7-29-2022	0.5630	0.5630
2	7-30-2022	10-29-2022	0.6684	0.6684
3	10-30-2022	1-29-2023	0.6514	0.6514
4	1-30-2023	4-29-2023	0.5928	0.5928
5	4-30-2023	7-29-2023	0.4281	0.4281
		Highest	0.6684	0.6684

**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	0.1307	1.5100e-003	0.0668	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8840	1.3089	1.3300e-003	3.0000e-005	1.3508
Energy	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	13.7256	13.7256	5.9000e-004	1.7000e-004	13.7906
Mobile	0.0207	0.0284	0.2187	4.8000e-004	0.0480	4.1000e-004	0.0484	0.0128	3.9000e-004	0.0132	0.0000	44.1624	44.1624	2.8600e-003	2.0100e-003	44.8317
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.2593	1.3420	8.5700e-003	2.1000e-004	1.6188
<b>Total</b>	<b>0.1520</b>	<b>0.0352</b>	<b>0.2877</b>	<b>5.8000e-004</b>	<b>0.0480</b>	<b>4.8800e-003</b>	<b>0.0529</b>	<b>0.0128</b>	<b>4.8600e-003</b>	<b>0.0177</b>	<b>1.4231</b>	<b>60.0313</b>	<b>61.4544</b>	<b>0.0675</b>	<b>2.4200e-003</b>	<b>63.8600</b>

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**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	0.1307	1.5100e-003	0.0668	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8840	1.3089	1.3300e-003	3.0000e-005	1.3508
Energy	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	13.7256	13.7256	5.9000e-004	1.7000e-004	13.7906
Mobile	0.0207	0.0284	0.2187	4.8000e-004	0.0480	4.1000e-004	0.0484	0.0128	3.9000e-004	0.0132	0.0000	44.1624	44.1624	2.8600e-003	2.0100e-003	44.8317
Waste						0.0000	0.0000		0.0000	0.0000	0.9155	0.0000	0.9155	0.0541	0.0000	2.2681
Water						0.0000	0.0000		0.0000	0.0000	0.0827	1.2593	1.3420	8.5700e-003	2.1000e-004	1.6188
<b>Total</b>	<b>0.1520</b>	<b>0.0352</b>	<b>0.2877</b>	<b>5.8000e-004</b>	<b>0.0480</b>	<b>4.8800e-003</b>	<b>0.0529</b>	<b>0.0128</b>	<b>4.8600e-003</b>	<b>0.0177</b>	<b>1.4231</b>	<b>60.0313</b>	<b>61.4544</b>	<b>0.0675</b>	<b>2.4200e-003</b>	<b>63.8600</b>

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

**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	5/28/2022	6/10/2022	5	10	
2	Grading	Grading	6/11/2022	7/8/2022	5	20	
3	Building Construction	Building Construction	7/9/2022	5/26/2023	5	230	

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4	Paving	Paving	5/27/2023	6/23/2023	5	20
5	Architectural Coating	Architectural Coating	6/24/2023	7/21/2023	5	20

**Acres of Grading (Site Preparation Phase): 15**

**Acres of Grading (Grading Phase): 20**

**Acres of Paving: 6.46**

**Residential Indoor: 48,600; Residential Outdoor: 16,200; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 16,891 (Architectural Coating – sqft)**

**OffRoad Equipment**

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

**Trips and VMT**

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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	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	120.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Site Preparation - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
<b>Total</b>	<b>0.0159</b>	<b>0.1654</b>	<b>0.0985</b>	<b>1.9000e-004</b>	<b>0.0983</b>	<b>8.0600e-003</b>	<b>0.1064</b>	<b>0.0505</b>	<b>7.4200e-003</b>	<b>0.0579</b>	<b>0.0000</b>	<b>16.7197</b>	<b>16.7197</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8549</b>

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**3.2 Site Preparation - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.4000e-004	3.1900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7984	0.7984	2.0000e-005	2.0000e-005	0.8054
<b>Total</b>	<b>3.0000e-004</b>	<b>2.4000e-004</b>	<b>3.1900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.7984</b>	<b>0.7984</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8054</b>

**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					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0159	0.1654	0.0985	1.9000e-004		8.0600e-003	8.0600e-003		7.4200e-003	7.4200e-003	0.0000	16.7197	16.7197	5.4100e-003	0.0000	16.8549
<b>Total</b>	<b>0.0159</b>	<b>0.1654</b>	<b>0.0985</b>	<b>1.9000e-004</b>	<b>0.0983</b>	<b>8.0600e-003</b>	<b>0.1064</b>	<b>0.0505</b>	<b>7.4200e-003</b>	<b>0.0579</b>	<b>0.0000</b>	<b>16.7197</b>	<b>16.7197</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8549</b>

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**3.2 Site Preparation - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.4000e-004	3.1900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.7984	0.7984	2.0000e-005	2.0000e-005	0.8054
<b>Total</b>	<b>3.0000e-004</b>	<b>2.4000e-004</b>	<b>3.1900e-003</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>1.0000e-005</b>	<b>9.9000e-004</b>	<b>2.6000e-004</b>	<b>1.0000e-005</b>	<b>2.7000e-004</b>	<b>0.0000</b>	<b>0.7984</b>	<b>0.7984</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.8054</b>

**3.3 Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0548	26.0548	8.4300e-003	0.0000	26.2654
<b>Total</b>	<b>0.0195</b>	<b>0.2086</b>	<b>0.1527</b>	<b>3.0000e-004</b>	<b>0.0708</b>	<b>9.4100e-003</b>	<b>0.0802</b>	<b>0.0343</b>	<b>8.6600e-003</b>	<b>0.0429</b>	<b>0.0000</b>	<b>26.0548</b>	<b>26.0548</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2654</b>

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**3.3 Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	5.3100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3306	1.3306	4.0000e-005	4.0000e-005	1.3423
<b>Total</b>	<b>5.0000e-004</b>	<b>4.1000e-004</b>	<b>5.3100e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3306</b>	<b>1.3306</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3423</b>

**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					0.0708	0.0000	0.0708	0.0343	0.0000	0.0343	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0195	0.2086	0.1527	3.0000e-004		9.4100e-003	9.4100e-003		8.6600e-003	8.6600e-003	0.0000	26.0547	26.0547	8.4300e-003	0.0000	26.2654
<b>Total</b>	<b>0.0195</b>	<b>0.2086</b>	<b>0.1527</b>	<b>3.0000e-004</b>	<b>0.0708</b>	<b>9.4100e-003</b>	<b>0.0802</b>	<b>0.0343</b>	<b>8.6600e-003</b>	<b>0.0429</b>	<b>0.0000</b>	<b>26.0547</b>	<b>26.0547</b>	<b>8.4300e-003</b>	<b>0.0000</b>	<b>26.2654</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	5.3100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3306	1.3306	4.0000e-005	4.0000e-005	1.3423
<b>Total</b>	<b>5.0000e-004</b>	<b>4.1000e-004</b>	<b>5.3100e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3306</b>	<b>1.3306</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3423</b>

**3.4 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8283	144.8283	0.0347	0.0000	145.6957
<b>Total</b>	<b>0.1066</b>	<b>0.9760</b>	<b>1.0227</b>	<b>1.6800e-003</b>		<b>0.0506</b>	<b>0.0506</b>		<b>0.0476</b>	<b>0.0476</b>	<b>0.0000</b>	<b>144.8283</b>	<b>144.8283</b>	<b>0.0347</b>	<b>0.0000</b>	<b>145.6957</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3000e-003	0.1434	0.0476	5.6000e-004	0.0185	1.4300e-003	0.0200	5.3500e-003	1.3700e-003	6.7100e-003	0.0000	54.8195	54.8195	1.8300e-003	7.9500e-003	57.2358
Worker	0.0252	0.0203	0.2657	7.3000e-004	0.0823	5.0000e-004	0.0828	0.0219	4.6000e-004	0.0223	0.0000	66.5322	66.5322	1.8400e-003	1.7900e-003	67.1129
<b>Total</b>	<b>0.0305</b>	<b>0.1638</b>	<b>0.3133</b>	<b>1.2900e-003</b>	<b>0.1008</b>	<b>1.9300e-003</b>	<b>0.1027</b>	<b>0.0272</b>	<b>1.8300e-003</b>	<b>0.0290</b>	<b>0.0000</b>	<b>121.3517</b>	<b>121.3517</b>	<b>3.6700e-003</b>	<b>9.7400e-003</b>	<b>124.3487</b>

**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	0.1066	0.9760	1.0227	1.6800e-003		0.0506	0.0506		0.0476	0.0476	0.0000	144.8281	144.8281	0.0347	0.0000	145.6955
<b>Total</b>	<b>0.1066</b>	<b>0.9760</b>	<b>1.0227</b>	<b>1.6800e-003</b>		<b>0.0506</b>	<b>0.0506</b>		<b>0.0476</b>	<b>0.0476</b>	<b>0.0000</b>	<b>144.8281</b>	<b>144.8281</b>	<b>0.0347</b>	<b>0.0000</b>	<b>145.6955</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Building Construction - 2022**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3000e-003	0.1434	0.0476	5.6000e-004	0.0185	1.4300e-003	0.0200	5.3500e-003	1.3700e-003	6.7100e-003	0.0000	54.8195	54.8195	1.8300e-003	7.9500e-003	57.2358
Worker	0.0252	0.0203	0.2657	7.3000e-004	0.0823	5.0000e-004	0.0828	0.0219	4.6000e-004	0.0223	0.0000	66.5322	66.5322	1.8400e-003	1.7900e-003	67.1129
<b>Total</b>	<b>0.0305</b>	<b>0.1638</b>	<b>0.3133</b>	<b>1.2900e-003</b>	<b>0.1008</b>	<b>1.9300e-003</b>	<b>0.1027</b>	<b>0.0272</b>	<b>1.8300e-003</b>	<b>0.0290</b>	<b>0.0000</b>	<b>121.3517</b>	<b>121.3517</b>	<b>3.6700e-003</b>	<b>9.7400e-003</b>	<b>124.3487</b>

**3.4 Building Construction - 2023**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0826	0.7552	0.8528	1.4100e-003		0.0367	0.0367		0.0346	0.0346	0.0000	121.6975	121.6975	0.0290	0.0000	122.4212
<b>Total</b>	<b>0.0826</b>	<b>0.7552</b>	<b>0.8528</b>	<b>1.4100e-003</b>		<b>0.0367</b>	<b>0.0367</b>		<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>121.6975</b>	<b>121.6975</b>	<b>0.0290</b>	<b>0.0000</b>	<b>122.4212</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6700e-003	0.0940	0.0358	4.5000e-004	0.0156	5.2000e-004	0.0161	4.4900e-003	5.0000e-004	4.9900e-003	0.0000	43.9145	43.9145	1.4700e-003	6.3600e-003	45.8474
Worker	0.0196	0.0151	0.2056	5.9000e-004	0.0691	4.0000e-004	0.0695	0.0184	3.6000e-004	0.0187	0.0000	54.0910	54.0910	1.3900e-003	1.3900e-003	54.5405
<b>Total</b>	<b>0.0223</b>	<b>0.1091</b>	<b>0.2414</b>	<b>1.0400e-003</b>	<b>0.0847</b>	<b>9.2000e-004</b>	<b>0.0856</b>	<b>0.0229</b>	<b>8.6000e-004</b>	<b>0.0237</b>	<b>0.0000</b>	<b>98.0055</b>	<b>98.0055</b>	<b>2.8600e-003</b>	<b>7.7500e-003</b>	<b>100.3879</b>

**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	0.0826	0.7552	0.8528	1.4100e-003		0.0367	0.0367		0.0346	0.0346	0.0000	121.6974	121.6974	0.0290	0.0000	122.4211
<b>Total</b>	<b>0.0826</b>	<b>0.7552</b>	<b>0.8528</b>	<b>1.4100e-003</b>		<b>0.0367</b>	<b>0.0367</b>		<b>0.0346</b>	<b>0.0346</b>	<b>0.0000</b>	<b>121.6974</b>	<b>121.6974</b>	<b>0.0290</b>	<b>0.0000</b>	<b>122.4211</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Building Construction - 2023**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.6700e-003	0.0940	0.0358	4.5000e-004	0.0156	5.2000e-004	0.0161	4.4900e-003	5.0000e-004	4.9900e-003	0.0000	43.9145	43.9145	1.4700e-003	6.3600e-003	45.8474
Worker	0.0196	0.0151	0.2056	5.9000e-004	0.0691	4.0000e-004	0.0695	0.0184	3.6000e-004	0.0187	0.0000	54.0910	54.0910	1.3900e-003	1.3900e-003	54.5405
<b>Total</b>	<b>0.0223</b>	<b>0.1091</b>	<b>0.2414</b>	<b>1.0400e-003</b>	<b>0.0847</b>	<b>9.2000e-004</b>	<b>0.0856</b>	<b>0.0229</b>	<b>8.6000e-004</b>	<b>0.0237</b>	<b>0.0000</b>	<b>98.0055</b>	<b>98.0055</b>	<b>2.8600e-003</b>	<b>7.7500e-003</b>	<b>100.3879</b>

**3.5 Paving - 2023**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0269	20.0269	6.4800e-003	0.0000	20.1888
Paving	7.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0180</b>	<b>0.1019</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.1000e-003</b>	<b>5.1000e-003</b>		<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>20.0269</b>	<b>20.0269</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1888</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.5 Paving - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.6000e-004	4.8900e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2879	1.2879	3.0000e-005	3.0000e-005	1.2986
<b>Total</b>	<b>4.7000e-004</b>	<b>3.6000e-004</b>	<b>4.8900e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.2879</b>	<b>1.2879</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.2986</b>

**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	0.0103	0.1019	0.1458	2.3000e-004		5.1000e-003	5.1000e-003		4.6900e-003	4.6900e-003	0.0000	20.0268	20.0268	6.4800e-003	0.0000	20.1888
Paving	7.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0180</b>	<b>0.1019</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.1000e-003</b>	<b>5.1000e-003</b>		<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>20.0268</b>	<b>20.0268</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1888</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.5 Paving - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.6000e-004	4.8900e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.2879	1.2879	3.0000e-005	3.0000e-005	1.2986
<b>Total</b>	<b>4.7000e-004</b>	<b>3.6000e-004</b>	<b>4.8900e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>1.0000e-005</b>	<b>1.6600e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.2879</b>	<b>1.2879</b>	<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>1.2986</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
<b>Total</b>	<b>0.1162</b>	<b>0.0130</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.5571</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.6 Architectural Coating - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.8000e-004	7.8300e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0606	2.0606	5.0000e-005	5.0000e-005	2.0777
<b>Total</b>	<b>7.5000e-004</b>	<b>5.8000e-004</b>	<b>7.8300e-003</b>	<b>2.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.0606</b>	<b>2.0606</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>2.0777</b>

**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	0.1142					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9200e-003	0.0130	0.0181	3.0000e-005		7.1000e-004	7.1000e-004		7.1000e-004	7.1000e-004	0.0000	2.5533	2.5533	1.5000e-004	0.0000	2.5571
<b>Total</b>	<b>0.1162</b>	<b>0.0130</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>		<b>7.1000e-004</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.5571</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.6 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	5.8000e-004	7.8300e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0606	2.0606	5.0000e-005	5.0000e-005	2.0777
<b>Total</b>	<b>7.5000e-004</b>	<b>5.8000e-004</b>	<b>7.8300e-003</b>	<b>2.0000e-005</b>	<b>2.6300e-003</b>	<b>2.0000e-005</b>	<b>2.6500e-003</b>	<b>7.0000e-004</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>0.0000</b>	<b>2.0606</b>	<b>2.0606</b>	<b>5.0000e-005</b>	<b>5.0000e-005</b>	<b>2.0777</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.0207	0.0284	0.2187	4.8000e-004	0.0480	4.1000e-004	0.0484	0.0128	3.9000e-004	0.0132	0.0000	44.1624	44.1624	2.8600e-003	2.0100e-003	44.8317
Unmitigated	0.0207	0.0284	0.2187	4.8000e-004	0.0480	4.1000e-004	0.0484	0.0128	3.9000e-004	0.0132	0.0000	44.1624	44.1624	2.8600e-003	2.0100e-003	44.8317

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	37.76	38.16	34.20	127,489	127,489
Total	37.76	38.16	34.20	127,489	127,489

**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-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.543376	0.059966	0.184357	0.131187	0.023843	0.006245	0.012012	0.009162	0.000826	0.000515	0.023898	0.000748	0.003864
Other Non-Asphalt Surfaces	0.543376	0.059966	0.184357	0.131187	0.023843	0.006245	0.012012	0.009162	0.000826	0.000515	0.023898	0.000748	0.003864

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Single Family Housing	0.543376	0.059966	0.184357	0.131187	0.023843	0.006245	0.012012	0.009162	0.000826	0.000515	0.023898	0.000748	0.003864
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**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.6876	7.6876	4.8000e-004	6.0000e-005	7.7167
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.6876	7.6876	4.8000e-004	6.0000e-005	7.7167
Natural Gas Mitigated	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0380	6.0380	1.2000e-004	1.1000e-004	6.0739
Natural Gas Unmitigated	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0380	6.0380	1.2000e-004	1.1000e-004	6.0739

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Single Family Housing	113148	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0380	6.0380	1.2000e-004	1.1000e-004	6.0739
<b>Total</b>		<b>6.1000e-004</b>	<b>5.2100e-003</b>	<b>2.2200e-003</b>	<b>3.0000e-005</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>6.0380</b>	<b>6.0380</b>	<b>1.2000e-004</b>	<b>1.1000e-004</b>	<b>6.0739</b>

San Antonio Residential Development - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Single Family Housing	113148	6.1000e-004	5.2100e-003	2.2200e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	6.0380	6.0380	1.2000e-004	1.1000e-004	6.0739
<b>Total</b>		<b>6.1000e-004</b>	<b>5.2100e-003</b>	<b>2.2200e-003</b>	<b>3.0000e-005</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>		<b>4.2000e-004</b>	<b>4.2000e-004</b>	<b>0.0000</b>	<b>6.0380</b>	<b>6.0380</b>	<b>1.2000e-004</b>	<b>1.1000e-004</b>	<b>6.0739</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31858.6	7.6876	4.8000e-004	6.0000e-005	7.7167
<b>Total</b>		<b>7.6876</b>	<b>4.8000e-004</b>	<b>6.0000e-005</b>	<b>7.7167</b>

San Antonio Residential Development - South Coast AQMD Air District, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	31858.6	7.6876	4.8000e-004	6.0000e-005	7.7167
<b>Total</b>		<b>7.6876</b>	<b>4.8000e-004</b>	<b>6.0000e-005</b>	<b>7.7167</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive 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	0.1307	1.5100e-003	0.0668	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8840	1.3089	1.3300e-003	3.0000e-005	1.3508
Unmitigated	0.1307	1.5100e-003	0.0668	7.0000e-005		4.0500e-003	4.0500e-003		4.0500e-003	4.0500e-003	0.4249	0.8840	1.3089	1.3300e-003	3.0000e-005	1.3508

**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	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1049					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0131	1.0400e-003	0.0254	6.0000e-005		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.4249	0.8165	1.2413	1.2700e-003	3.0000e-005	1.2816
Landscaping	1.2500e-003	4.8000e-004	0.0414	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.0675	0.0675	7.0000e-005	0.0000	0.0692
<b>Total</b>	<b>0.1307</b>	<b>1.5200e-003</b>	<b>0.0668</b>	<b>6.0000e-005</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>	<b>0.4249</b>	<b>0.8840</b>	<b>1.3089</b>	<b>1.3400e-003</b>	<b>3.0000e-005</b>	<b>1.3508</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0114					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1049					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0131	1.0400e-003	0.0254	6.0000e-005		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.4249	0.8165	1.2413	1.2700e-003	3.0000e-005	1.2816
Landscaping	1.2500e-003	4.8000e-004	0.0414	0.0000		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	0.0675	0.0675	7.0000e-005	0.0000	0.0692
<b>Total</b>	<b>0.1307</b>	<b>1.5200e-003</b>	<b>0.0668</b>	<b>6.0000e-005</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>		<b>4.0500e-003</b>	<b>4.0500e-003</b>	<b>0.4249</b>	<b>0.8840</b>	<b>1.3089</b>	<b>1.3400e-003</b>	<b>3.0000e-005</b>	<b>1.3508</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.3420	8.5700e-003	2.1000e-004	1.6188
Unmitigated	1.3420	8.5700e-003	2.1000e-004	1.6188

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.260616 / 0.164301	1.3420	8.5700e-003	2.1000e-004	1.6188
<b>Total</b>		<b>1.3420</b>	<b>8.5700e-003</b>	<b>2.1000e-004</b>	<b>1.6188</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.260616 / 0.164301	1.3420	8.5700e-003	2.1000e-004	1.6188
<b>Total</b>		<b>1.3420</b>	<b>8.5700e-003</b>	<b>2.1000e-004</b>	<b>1.6188</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.9155	0.0541	0.0000	2.2681
Unmitigated	0.9155	0.0541	0.0000	2.2681

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
<b>Total</b>		<b>0.9155</b>	<b>0.0541</b>	<b>0.0000</b>	<b>2.2681</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	4.51	0.9155	0.0541	0.0000	2.2681
<b>Total</b>		<b>0.9155</b>	<b>0.0541</b>	<b>0.0000</b>	<b>2.2681</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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

Equipment Type	Number
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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**11.0 Vegetation**

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