

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

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, Summer**

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

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

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

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

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					
2022	3.2321	33.1271	21.6872	0.0481	19.8582	1.6138	21.4720	10.1558	1.4847	11.6405	0.0000	4,748.0183	4,748.0183	1.1970	0.1695	4,815.4396
2023	11.6915	16.3481	21.1251	0.0472	1.6423	0.7172	2.3595	0.4424	0.6749	1.1172	0.0000	4,664.0663	4,664.0663	0.7176	0.1605	4,728.5869
Maximum	11.6915	33.1271	21.6872	0.0481	19.8582	1.6138	21.4720	10.1558	1.4847	11.6405	0.0000	4,748.0183	4,748.0183	1.1970	0.1695	4,815.4396

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					
2022	3.2321	33.1271	21.6872	0.0481	19.8582	1.6138	21.4720	10.1558	1.4847	11.6405	0.0000	4,748.0183	4,748.0183	1.1970	0.1695	4,815.4396
2023	11.6915	16.3481	21.1251	0.0472	1.6423	0.7172	2.3595	0.4424	0.6749	1.1172	0.0000	4,664.0663	4,664.0663	0.7176	0.1605	4,728.5868
Maximum	11.6915	33.1271	21.6872	0.0481	19.8582	1.6138	21.4720	10.1558	1.4847	11.6405	0.0000	4,748.0183	4,748.0183	1.1970	0.1695	4,815.4396

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

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

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	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6289
Energy	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866
Mobile	0.1221	0.1470	1.2640	2.7900e-003	0.2748	2.3200e-003	0.2771	0.0732	2.1700e-003	0.0754		283.8802	283.8802	0.0173	0.0119	287.8501
Total	1.8211	0.2624	3.6414	8.1800e-003	0.2748	0.3120	0.5868	0.0732	0.3119	0.3851	37.4677	392.9457	430.4134	0.1303	0.0151	438.1656

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	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6289
Energy	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866
Mobile	0.1221	0.1470	1.2640	2.7900e-003	0.2748	2.3200e-003	0.2771	0.0732	2.1700e-003	0.0754		283.8802	283.8802	0.0173	0.0119	287.8501
Total	1.8211	0.2624	3.6414	8.1800e-003	0.2748	0.3120	0.5868	0.0732	0.3119	0.3851	37.4677	392.9457	430.4134	0.1303	0.0151	438.1656

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

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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	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	
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

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

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

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

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

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

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

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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

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	0.0000	0.0000	0.0000	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	0.0620	0.0436	0.6861	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1000e-003	0.0545		184.0558	184.0558	4.8100e-003	4.4000e-003	185.4883
Total	0.0620	0.0436	0.6861	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1000e-003	0.0545		184.0558	184.0558	4.8100e-003	4.4000e-003	185.4883

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

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

3.2 Site Preparation - 2022

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					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

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	0.0000	0.0000	0.0000	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	0.0620	0.0436	0.6861	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1000e-003	0.0545		184.0558	184.0558	4.8100e-003	4.4000e-003	185.4883
Total	0.0620	0.0436	0.6861	1.8200e-003	0.2012	1.2000e-003	0.2024	0.0534	1.1000e-003	0.0545		184.0558	184.0558	4.8100e-003	4.4000e-003	185.4883

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

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

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	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	7.0826	0.9409	8.0234	3.4247	0.8656	4.2903		2,872.046 4	2,872.046 4	0.9289		2,895.268 4

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	0.0000	0.0000	0.0000	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	0.0516	0.0363	0.5718	1.5200e-003	0.1677	1.0000e-003	0.1687	0.0445	9.2000e-004	0.0454		153.3798	153.3798	4.0100e-003	3.6700e-003	154.5736
Total	0.0516	0.0363	0.5718	1.5200e-003	0.1677	1.0000e-003	0.1687	0.0445	9.2000e-004	0.0454		153.3798	153.3798	4.0100e-003	3.6700e-003	154.5736

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

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 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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4
Total	1.9486	20.8551	15.2727	0.0297	7.0826	0.9409	8.0234	3.4247	0.8656	4.2903	0.0000	2,872.046 4	2,872.046 4	0.9289		2,895.268 4

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	0.0000	0.0000	0.0000	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	0.0516	0.0363	0.5718	1.5200e-003	0.1677	1.0000e-003	0.1687	0.0445	9.2000e-004	0.0454		153.3798	153.3798	4.0100e-003	3.6700e-003	154.5736
Total	0.0516	0.0363	0.5718	1.5200e-003	0.1677	1.0000e-003	0.1687	0.0445	9.2000e-004	0.0454		153.3798	153.3798	4.0100e-003	3.6700e-003	154.5736

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

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 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0000	0.0000	0.0000	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	0.0857	2.1870	0.7498	8.9900e-003	0.3010	0.0229	0.3238	0.0867	0.0219	0.1085		966.6459	966.6459	0.0324	0.1401	1,009.2185
Worker	0.4132	0.2906	4.5740	0.0121	1.3413	8.0000e-003	1.3493	0.3557	7.3700e-003	0.3631		1,227.0388	1,227.0388	0.0321	0.0294	1,236.5890
Total	0.4989	2.4776	5.3238	0.0211	1.6423	0.0309	1.6731	0.4424	0.0293	0.4716		2,193.6847	2,193.6847	0.0645	0.1695	2,245.8074

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

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 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	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

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	0.0000	0.0000	0.0000	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	0.0857	2.1870	0.7498	8.9900e-003	0.3010	0.0229	0.3238	0.0867	0.0219	0.1085		966.6459	966.6459	0.0324	0.1401	1,009.2185
Worker	0.4132	0.2906	4.5740	0.0121	1.3413	8.0000e-003	1.3493	0.3557	7.3700e-003	0.3631		1,227.0388	1,227.0388	0.0321	0.0294	1,236.5890
Total	0.4989	2.4776	5.3238	0.0211	1.6423	0.0309	1.6731	0.4424	0.0293	0.4716		2,193.6847	2,193.6847	0.0645	0.1695	2,245.8074

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

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 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0520	1.7061	0.6717	8.5500e-003	0.3010	9.9300e-003	0.3109	0.0867	9.5000e-003	0.0962		921.3453	921.3453	0.0310	0.1334	961.8674
Worker	0.3831	0.2571	4.2095	0.0118	1.3413	7.5300e-003	1.3489	0.3557	6.9300e-003	0.3627		1,187.5111	1,187.5111	0.0288	0.0271	1,196.3134
Total	0.4351	1.9632	4.8811	0.0203	1.6423	0.0175	1.6597	0.4424	0.0164	0.4588		2,108.8564	2,108.8564	0.0598	0.1605	2,158.1808

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

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 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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0520	1.7061	0.6717	8.5500e-003	0.3010	9.9300e-003	0.3109	0.0867	9.5000e-003	0.0962		921.3453	921.3453	0.0310	0.1334	961.8674
Worker	0.3831	0.2571	4.2095	0.0118	1.3413	7.5300e-003	1.3489	0.3557	6.9300e-003	0.3627		1,187.5111	1,187.5111	0.0288	0.0271	1,196.3134
Total	0.4351	1.9632	4.8811	0.0203	1.6423	0.0175	1.6597	0.4424	0.0164	0.4588		2,108.8564	2,108.8564	0.0598	0.1605	2,158.1808

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

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 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.7952	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0000	0.0000	0.0000	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	0.0479	0.0321	0.5262	1.4700e-003	0.1677	9.4000e-004	0.1686	0.0445	8.7000e-004	0.0453		148.4389	148.4389	3.6000e-003	3.3900e-003	149.5392
Total	0.0479	0.0321	0.5262	1.4700e-003	0.1677	9.4000e-004	0.1686	0.0445	8.7000e-004	0.0453		148.4389	148.4389	3.6000e-003	3.3900e-003	149.5392

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

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 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	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.7624					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.7952	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336

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	0.0000	0.0000	0.0000	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	0.0479	0.0321	0.5262	1.4700e-003	0.1677	9.4000e-004	0.1686	0.0445	8.7000e-004	0.0453		148.4389	148.4389	3.6000e-003	3.3900e-003	149.5392
Total	0.0479	0.0321	0.5262	1.4700e-003	0.1677	9.4000e-004	0.1686	0.0445	8.7000e-004	0.0453		148.4389	148.4389	3.6000e-003	3.3900e-003	149.5392

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

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 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	11.4232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	11.6149	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

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	0.0000	0.0000	0.0000	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	0.0766	0.0514	0.8419	2.3500e-003	0.2683	1.5100e-003	0.2698	0.0711	1.3900e-003	0.0725		237.5022	237.5022	5.7600e-003	5.4200e-003	239.2627
Total	0.0766	0.0514	0.8419	2.3500e-003	0.2683	1.5100e-003	0.2698	0.0711	1.3900e-003	0.0725		237.5022	237.5022	5.7600e-003	5.4200e-003	239.2627

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

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 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	11.4232					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	11.6149	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

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	0.0000	0.0000	0.0000	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	0.0766	0.0514	0.8419	2.3500e-003	0.2683	1.5100e-003	0.2698	0.0711	1.3900e-003	0.0725		237.5022	237.5022	5.7600e-003	5.4200e-003	239.2627
Total	0.0766	0.0514	0.8419	2.3500e-003	0.2683	1.5100e-003	0.2698	0.0711	1.3900e-003	0.0725		237.5022	237.5022	5.7600e-003	5.4200e-003	239.2627

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

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1221	0.1470	1.2640	2.7900e-003	0.2748	2.3200e-003	0.2771	0.0732	2.1700e-003	0.0754		283.8802	283.8802	0.0173	0.0119	287.8501
Unmitigated	0.1221	0.1470	1.2640	2.7900e-003	0.2748	2.3200e-003	0.2771	0.0732	2.1700e-003	0.0754		283.8802	283.8802	0.0173	0.0119	287.8501

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

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

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

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
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

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	lb/day										lb/day					
NaturalGas Mitigated	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866
NaturalGas Unmitigated	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866

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

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	lb/day										lb/day					
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
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
Single Family Housing	309.994	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866
Total		3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866

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

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	lb/day										lb/day					
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
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
Single Family Housing	0.309994	3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866
Total		3.3400e-003	0.0286	0.0122	1.8000e-004		2.3100e-003	2.3100e-003		2.3100e-003	2.3100e-003		36.4699	36.4699	7.0000e-004	6.7000e-004	36.6866

6.0 Area Detail

6.1 Mitigation Measures Area

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

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	lb/day										lb/day					
Mitigated	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6289
Unmitigated	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6289

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	0.0626					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0100	3.8200e-003	0.3310	2.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		0.5956	0.5956	5.8000e-004		0.6101
Total	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6290

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

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	lb/day										lb/day					
Architectural Coating	0.0626					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0481	0.0830	2.0342	5.1900e-003		0.3056	0.3056		0.3056	0.3056	37.4677	72.0000	109.4677	0.1117	2.5400e-003	113.0189
Landscaping	0.0100	3.8200e-003	0.3310	2.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		0.5956	0.5956	5.8000e-004		0.6101
Total	1.6957	0.0868	2.3652	5.2100e-003		0.3074	0.3074		0.3074	0.3074	37.4677	72.5956	110.0633	0.1123	2.5400e-003	113.6290

7.0 Water Detail

7.1 Mitigation Measures Water

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

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

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 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation
