

Appendix A-2

Air Quality/Greenhouse Gas Emissions Data

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Shen Residence -AQGHG
South Coast AQMD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	30.24	1000sqft	0.69	30,240.00	0
Other Non-Asphalt Surfaces	4.09	1000sqft	0.09	4,090.00	0
Recreational Swimming Pool	2.77	1000sqft	0.06	2,770.00	0
Single Family Housing	1.00	Dwelling Unit	0.26	11,274.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - guest house is included in Single family residence land use
- Construction Phase - Adjusted construction schedule to reflect the 14 months of construction activity
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -

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Architectural Coating -

Vehicle Trips - vehicle trips = 0 because private pool

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste - solid waste from pool omitted (private). diversion reduced 25% percent per City's Estate's Solid Waste Collection Services Contract

Construction Off-road Equipment Mitigation - Based on Rule 403

Area Mitigation -

Energy Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	200.00	268.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	10.00	13.00
tblLandUse	LandUseSquareFeet	1,800.00	11,274.00
tblLandUse	LotAcreage	0.32	0.26
tblSolidWaste	SolidWasteGenerationRate	15.79	0.00
tblSolidWaste	SolidWasteGenerationRate	1.23	0.92
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	28.82	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1920	1.4923	1.6934	3.2000e-003	0.0581	0.0597	0.1178	0.0222	0.0575	0.0797	0.0000	268.3249	268.3249	0.0416	2.3600e-003	270.0676
2025	0.0564	0.1223	0.1692	3.0000e-004	2.7400e-003	4.9000e-003	7.6400e-003	7.3000e-004	4.6700e-003	5.4100e-003	0.0000	25.5687	25.5687	4.8100e-003	1.6000e-004	25.7353
Maximum	0.1920	1.4923	1.6934	3.2000e-003	0.0581	0.0597	0.1178	0.0222	0.0575	0.0797	0.0000	268.3249	268.3249	0.0416	2.3600e-003	270.0676

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					
2024	0.1920	1.4923	1.6934	3.2000e-003	0.0412	0.0597	0.1010	0.0141	0.0575	0.0716	0.0000	268.3247	268.3247	0.0416	2.3600e-003	270.0673
2025	0.0564	0.1223	0.1692	3.0000e-004	2.7400e-003	4.9000e-003	7.6400e-003	7.3000e-004	4.6700e-003	5.4100e-003	0.0000	25.5687	25.5687	4.8100e-003	1.6000e-004	25.7353
Maximum	0.1920	1.4923	1.6934	3.2000e-003	0.0412	0.0597	0.1010	0.0141	0.0575	0.0716	0.0000	268.3247	268.3247	0.0416	2.3600e-003	270.0673

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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	27.71	0.00	13.43	35.49	0.00	9.54	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	1-1-2024	3-31-2024	0.4231	0.4231
2	4-1-2024	6-30-2024	0.4156	0.4156
3	7-1-2024	9-30-2024	0.4202	0.4202
4	10-1-2024	12-31-2024	0.4207	0.4207
5	1-1-2025	3-31-2025	0.1729	0.1729
		Highest	0.4231	0.4231

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	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386
Energy	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	2.6618	2.6618	1.4000e-004	4.0000e-005	2.6765
Mobile	4.6200e-003	5.5400e-003	0.0479	1.1000e-004	0.0120	8.0000e-005	0.0121	3.2000e-003	7.0000e-005	3.2800e-003	0.0000	10.3053	10.3053	6.4000e-004	4.4000e-004	10.4536
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0726	0.8075	0.8802	7.5300e-003	1.8000e-004	1.1234
Total	0.0553	7.0200e-003	0.0655	1.4000e-004	0.0120	1.1800e-003	0.0132	3.2000e-003	1.1700e-003	4.3800e-003	0.3656	13.9965	14.3621	0.0197	6.7000e-004	15.0547

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386
Energy	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	2.6618	2.6618	1.4000e-004	4.0000e-005	2.6765
Mobile	4.6200e-003	5.5400e-003	0.0479	1.1000e-004	0.0120	8.0000e-005	0.0121	3.2000e-003	7.0000e-005	3.2800e-003	0.0000	10.3053	10.3053	6.4000e-004	4.4000e-004	10.4536
Waste						0.0000	0.0000		0.0000	0.0000	0.1868	0.0000	0.1868	0.0110	0.0000	0.4627
Water						0.0000	0.0000		0.0000	0.0000	0.0726	0.8075	0.8802	7.5300e-003	1.8000e-004	1.1234
Total	0.0553	7.0200e-003	0.0655	1.4000e-004	0.0120	1.1800e-003	0.0132	3.2000e-003	1.1700e-003	4.3800e-003	0.3656	13.9965	14.3621	0.0197	6.7000e-004	15.0547

	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	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	1/21/2025	5	268	

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4	Paving	Paving	1/22/2025	2/7/2025	5	13
5	Architectural Coating	Architectural Coating	2/10/2025	2/26/2025	5	13

Acres of Grading (Site Preparation Phase): 2.81

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.78

Residential Indoor: 22,830; Residential Outdoor: 7,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,060 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2024

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					9.3900e-003	0.0000	9.3900e-003	4.5100e-003	0.0000	4.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0178	9.9500e-003	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.2669	2.2669	7.3000e-004	0.0000	2.2852
Total	1.6600e-003	0.0178	9.9500e-003	3.0000e-005	9.3900e-003	7.2000e-004	0.0101	4.5100e-003	6.7000e-004	5.1800e-003	0.0000	2.2669	2.2669	7.3000e-004	0.0000	2.2852

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3.2 Site Preparation - 2024

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-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1021	0.1021	0.0000	0.0000	0.1029
Total	3.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1021	0.1021	0.0000	0.0000	0.1029

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					4.2300e-003	0.0000	4.2300e-003	2.0300e-003	0.0000	2.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6600e-003	0.0178	9.9500e-003	3.0000e-005		7.2000e-004	7.2000e-004		6.7000e-004	6.7000e-004	0.0000	2.2669	2.2669	7.3000e-004	0.0000	2.2852
Total	1.6600e-003	0.0178	9.9500e-003	3.0000e-005	4.2300e-003	7.2000e-004	4.9500e-003	2.0300e-003	6.7000e-004	2.7000e-003	0.0000	2.2669	2.2669	7.3000e-004	0.0000	2.2852

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3.2 Site Preparation - 2024

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-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1021	0.1021	0.0000	0.0000	0.1029
Total	3.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1021	0.1021	0.0000	0.0000	0.1029

3.3 Grading - 2024

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					0.0213	0.0000	0.0213	0.0103	0.0000	0.0103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	3.9000e-003	0.0415	0.0261	6.0000e-005	0.0213	1.7200e-003	0.0230	0.0103	1.5800e-003	0.0119	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750

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3.3 Grading - 2024

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	9.0000e-005	6.0000e-005	9.2000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2572
Total	9.0000e-005	6.0000e-005	9.2000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2572

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					9.5600e-003	0.0000	9.5600e-003	4.6200e-003	0.0000	4.6200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-003	0.0415	0.0261	6.0000e-005		1.7200e-003	1.7200e-003		1.5800e-003	1.5800e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750
Total	3.9000e-003	0.0415	0.0261	6.0000e-005	9.5600e-003	1.7200e-003	0.0113	4.6200e-003	1.5800e-003	6.2000e-003	0.0000	5.4311	5.4311	1.7600e-003	0.0000	5.4750

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3.3 Grading - 2024

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	9.0000e-005	6.0000e-005	9.2000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2572
Total	9.0000e-005	6.0000e-005	9.2000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2572

3.4 Building Construction - 2024

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	0.1796	1.3996	1.5834	2.7900e-003		0.0570	0.0570		0.0550	0.0550	0.0000	229.7382	229.7382	0.0383	0.0000	230.6947
Total	0.1796	1.3996	1.5834	2.7900e-003		0.0570	0.0570		0.0550	0.0550	0.0000	229.7382	229.7382	0.0383	0.0000	230.6947

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3.4 Building Construction - 2024

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	8.0000e-004	0.0291	0.0108	1.4000e-004	4.7900e-003	1.6000e-004	4.9500e-003	1.3800e-003	1.5000e-004	1.5400e-003	0.0000	13.3139	13.3139	4.5000e-004	1.9300e-003	13.9009
Worker	5.9000e-003	4.3300e-003	0.0618	1.8000e-004	0.0222	1.2000e-004	0.0223	5.9000e-003	1.1000e-004	6.0100e-003	0.0000	17.2176	17.2176	4.0000e-004	4.2000e-004	17.3517
Total	6.7000e-003	0.0334	0.0726	3.2000e-004	0.0270	2.8000e-004	0.0273	7.2800e-003	2.6000e-004	7.5500e-003	0.0000	30.5314	30.5314	8.5000e-004	2.3500e-003	31.2525

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	0.1796	1.3996	1.5834	2.7900e-003		0.0570	0.0570		0.0550	0.0550	0.0000	229.7380	229.7380	0.0383	0.0000	230.6945
Total	0.1796	1.3996	1.5834	2.7900e-003		0.0570	0.0570		0.0550	0.0550	0.0000	229.7380	229.7380	0.0383	0.0000	230.6945

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3.4 Building Construction - 2024

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	8.0000e-004	0.0291	0.0108	1.4000e-004	4.7900e-003	1.6000e-004	4.9500e-003	1.3800e-003	1.5000e-004	1.5400e-003	0.0000	13.3139	13.3139	4.5000e-004	1.9300e-003	13.9009
Worker	5.9000e-003	4.3300e-003	0.0618	1.8000e-004	0.0222	1.2000e-004	0.0223	5.9000e-003	1.1000e-004	6.0100e-003	0.0000	17.2176	17.2176	4.0000e-004	4.2000e-004	17.3517
Total	6.7000e-003	0.0334	0.0726	3.2000e-004	0.0270	2.8000e-004	0.0273	7.2800e-003	2.6000e-004	7.5500e-003	0.0000	30.5314	30.5314	8.5000e-004	2.3500e-003	31.2525

3.4 Building Construction - 2025

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	9.9300e-003	0.0781	0.0933	1.7000e-004		2.9400e-003	2.9400e-003		2.8400e-003	2.8400e-003	0.0000	13.6224	13.6224	2.2200e-003	0.0000	13.6780
Total	9.9300e-003	0.0781	0.0933	1.7000e-004		2.9400e-003	2.9400e-003		2.8400e-003	2.8400e-003	0.0000	13.6224	13.6224	2.2200e-003	0.0000	13.6780

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3.4 Building Construction - 2025

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	5.0000e-005	1.7100e-003	6.3000e-004	1.0000e-005	2.8000e-004	1.0000e-005	2.9000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7750	0.7750	3.0000e-005	1.1000e-004	0.8092
Worker	3.3000e-004	2.3000e-004	3.4200e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	0.9959	0.9959	2.0000e-005	2.0000e-005	1.0033
Total	3.8000e-004	1.9400e-003	4.0500e-003	2.0000e-005	1.6000e-003	2.0000e-005	1.6100e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7708	1.7708	5.0000e-005	1.3000e-004	1.8125

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	9.9300e-003	0.0781	0.0933	1.7000e-004		2.9400e-003	2.9400e-003		2.8400e-003	2.8400e-003	0.0000	13.6224	13.6224	2.2200e-003	0.0000	13.6780
Total	9.9300e-003	0.0781	0.0933	1.7000e-004		2.9400e-003	2.9400e-003		2.8400e-003	2.8400e-003	0.0000	13.6224	13.6224	2.2200e-003	0.0000	13.6780

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3.4 Building Construction - 2025

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	5.0000e-005	1.7100e-003	6.3000e-004	1.0000e-005	2.8000e-004	1.0000e-005	2.9000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.7750	0.7750	3.0000e-005	1.1000e-004	0.8092
Worker	3.3000e-004	2.3000e-004	3.4200e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3200e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	0.9959	0.9959	2.0000e-005	2.0000e-005	1.0033
Total	3.8000e-004	1.9400e-003	4.0500e-003	2.0000e-005	1.6000e-003	2.0000e-005	1.6100e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7708	1.7708	5.0000e-005	1.3000e-004	1.8125

3.5 Paving - 2025

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	3.7300e-003	0.0346	0.0572	9.0000e-005		1.6000e-003	1.6000e-003		1.4800e-003	1.4800e-003	0.0000	7.6528	7.6528	2.4300e-003	0.0000	7.7135
Paving	9.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.6300e-003	0.0346	0.0572	9.0000e-005		1.6000e-003	1.6000e-003		1.4800e-003	1.4800e-003	0.0000	7.6528	7.6528	2.4300e-003	0.0000	7.7135

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3.5 Paving - 2025

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	2.3000e-004	1.6000e-004	2.4100e-003	1.0000e-005	9.3000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7013	0.7013	2.0000e-005	2.0000e-005	0.7065
Total	2.3000e-004	1.6000e-004	2.4100e-003	1.0000e-005	9.3000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7013	0.7013	2.0000e-005	2.0000e-005	0.7065

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	3.7300e-003	0.0346	0.0572	9.0000e-005		1.6000e-003	1.6000e-003		1.4800e-003	1.4800e-003	0.0000	7.6528	7.6528	2.4300e-003	0.0000	7.7134
Paving	9.0000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.6300e-003	0.0346	0.0572	9.0000e-005		1.6000e-003	1.6000e-003		1.4800e-003	1.4800e-003	0.0000	7.6528	7.6528	2.4300e-003	0.0000	7.7134

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3.5 Paving - 2025

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	2.3000e-004	1.6000e-004	2.4100e-003	1.0000e-005	9.3000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7013	0.7013	2.0000e-005	2.0000e-005	0.7065
Total	2.3000e-004	1.6000e-004	2.4100e-003	1.0000e-005	9.3000e-004	0.0000	9.3000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.7013	0.7013	2.0000e-005	2.0000e-005	0.7065

3.6 Architectural Coating - 2025

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	0.0401					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	7.4500e-003	0.0118	2.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6619
Total	0.0412	7.4500e-003	0.0118	2.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6619

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3.6 Architectural Coating - 2025

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-005	4.0000e-005	5.6000e-004	0.0000	2.1000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1618	0.1618	0.0000	0.0000	0.1630
Total	5.0000e-005	4.0000e-005	5.6000e-004	0.0000	2.1000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1618	0.1618	0.0000	0.0000	0.1630

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	0.0401					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1100e-003	7.4500e-003	0.0118	2.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6619
Total	0.0412	7.4500e-003	0.0118	2.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6619

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3.6 Architectural Coating - 2025

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-005	4.0000e-005	5.6000e-004	0.0000	2.1000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1618	0.1618	0.0000	0.0000	0.1630
Total	5.0000e-005	4.0000e-005	5.6000e-004	0.0000	2.1000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1618	0.1618	0.0000	0.0000	0.1630

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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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
Category	tons/yr										MT/yr					
Mitigated	4.6200e-003	5.5400e-003	0.0479	1.1000e-004	0.0120	8.0000e-005	0.0121	3.2000e-003	7.0000e-005	3.2800e-003	0.0000	10.3053	10.3053	6.4000e-004	4.4000e-004	10.4536
Unmitigated	4.6200e-003	5.5400e-003	0.0479	1.1000e-004	0.0120	8.0000e-005	0.0121	3.2000e-003	7.0000e-005	3.2800e-003	0.0000	10.3053	10.3053	6.4000e-004	4.4000e-004	10.4536

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		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	9.44	9.54	8.55	31,872	31,872
Total	9.44	9.54	8.55	31,872	31,872

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Non-Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Single Family Housing	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

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	1.3865	1.3865	1.2000e-004	1.0000e-005	1.3937
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.3865	1.3865	1.2000e-004	1.0000e-005	1.3937
NaturalGas Mitigated	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829
NaturalGas Unmitigated	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	23897.8	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829
Total		1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	23897.8	1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829
Total		1.3000e-004	1.1000e-003	4.7000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2753	1.2753	2.0000e-005	2.0000e-005	1.2829

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7818.09	1.3865	1.2000e-004	1.0000e-005	1.3937
Total		1.3865	1.2000e-004	1.0000e-005	1.3937

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	7818.09	1.3865	1.2000e-004	1.0000e-005	1.3937
Total		1.3865	1.2000e-004	1.0000e-005	1.3937

6.0 Area Detail

6.1 Mitigation Measures Area

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386
Unmitigated	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386

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	4.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	3.5000e-004	1.2000e-004	0.0108	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0178	0.0178	2.0000e-005	0.0000	0.0182
Total	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	4.0000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	3.5000e-004	1.2000e-004	0.0108	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0178	0.0178	2.0000e-005	0.0000	0.0182
Total	0.0506	3.8000e-004	0.0171	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2219	0.3281	3.4000e-004	1.0000e-005	0.3386

7.0 Water Detail

7.1 Mitigation Measures Water

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.8802	7.5300e-003	1.8000e-004	1.1234
Unmitigated	0.8802	7.5300e-003	1.8000e-004	1.1234

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
Recreational Swimming Pool	0.163827 / 0.10041	0.6281	5.3900e-003	1.3000e-004	0.8021
Single Family Housing	0.065154 / 0.0410754	0.2521	2.1400e-003	5.0000e-005	0.3213
Total		0.8802	7.5300e-003	1.8000e-004	1.1234

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	0.163827 / 0.10041	0.6281	5.3900e-003	1.3000e-004	0.8021
Single Family Housing	0.065154 / 0.0410754	0.2521	2.1400e-003	5.0000e-005	0.3213
Total		0.8802	7.5300e-003	1.8000e-004	1.1234

8.0 Waste Detail

8.1 Mitigation Measures Waste

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1868	0.0110	0.0000	0.4627
Unmitigated	0.1868	0.0110	0.0000	0.4627

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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.92	0.1868	0.0110	0.0000	0.4627
Total		0.1868	0.0110	0.0000	0.4627

Shen Residence -AQGHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.92	0.1868	0.0110	0.0000	0.4627
Total		0.1868	0.0110	0.0000	0.4627

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
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

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

User Defined Equipment

Shen Residence -AQQHG - South Coast AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

11.0 Vegetation

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Shen Residence -AQGHG
South Coast AQMD Air District, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	30.24	1000sqft	0.69	30,240.00	0
Other Non-Asphalt Surfaces	4.09	1000sqft	0.09	4,090.00	0
Recreational Swimming Pool	2.77	1000sqft	0.06	2,770.00	0
Single Family Housing	1.00	Dwelling Unit	0.26	11,274.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - guest house is included in Single family residence land use
- Construction Phase - Adjusted construction schedule to reflect the 14 months of construction activity
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating -

Vehicle Trips - vehicle trips = 0 because private pool

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste - solid waste from pool omitted (private). diversion reduced 25% percent per City's Estate's Solid Waste Collection Services Contract

Construction Off-road Equipment Mitigation - Based on Rule 403

Area Mitigation -

Energy Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	200.00	268.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	10.00	13.00
tblLandUse	LandUseSquareFeet	1,800.00	11,274.00
tblLandUse	LotAcreage	0.32	0.26
tblSolidWaste	SolidWasteGenerationRate	15.79	0.00
tblSolidWaste	SolidWasteGenerationRate	1.23	0.92
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	28.82	0.00

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.4742	13.8370	13.1265	0.0247	7.1944	0.5729	7.7672	3.4544	0.5270	3.9814	0.0000	2,274.719 2	2,274.719 2	0.6476	0.0202	2,289.251 7
2025	6.3402	10.6581	13.0125	0.0246	0.2173	0.3947	0.6119	0.0585	0.3806	0.4391	0.0000	2,268.996 2	2,268.996 2	0.4140	0.0197	2,283.207 3
Maximum	6.3402	13.8370	13.1265	0.0247	7.1944	0.5729	7.7672	3.4544	0.5270	3.9814	0.0000	2,274.719 2	2,274.719 2	0.6476	0.0202	2,289.251 7

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					
2024	1.4742	13.8370	13.1265	0.0247	3.2989	0.5729	3.8718	1.5708	0.5270	2.0978	0.0000	2,274.719 2	2,274.719 2	0.6476	0.0202	2,289.251 7
2025	6.3402	10.6581	13.0125	0.0246	0.2173	0.3947	0.6119	0.0585	0.3806	0.4391	0.0000	2,268.996 2	2,268.996 2	0.4140	0.0197	2,283.207 3
Maximum	6.3402	13.8370	13.1265	0.0247	3.2989	0.5729	3.8718	1.5708	0.5270	2.0978	0.0000	2,274.719 2	2,274.719 2	0.6476	0.0202	2,289.251 7

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	52.56	0.00	46.49	53.62	0.00	42.61	0.00	0.00	0.00	0.00	0.00	0.00

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Energy	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Mobile	0.0273	0.0286	0.2755	6.3000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		66.2242	66.2242	3.9000e-003	2.6300e-003	67.1058
Total	0.5502	0.0564	0.8728	1.9700e-003	0.0687	0.0778	0.1465	0.0183	0.0778	0.0961	9.3669	92.0836	101.4505	0.0322	3.4100e-003	103.2698

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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Energy	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Mobile	0.0273	0.0286	0.2755	6.3000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		66.2242	66.2242	3.9000e-003	2.6300e-003	67.1058
Total	0.5502	0.0564	0.8728	1.9700e-003	0.0687	0.0778	0.1465	0.0183	0.0778	0.0961	9.3669	92.0836	101.4505	0.0322	3.4100e-003	103.2698

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	1/21/2025	5	268	
4	Paving	Paving	1/22/2025	2/7/2025	5	13	
5	Architectural Coating	Architectural Coating	2/10/2025	2/26/2025	5	13	

Acres of Grading (Site Preparation Phase): 2.81

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.78

Residential Indoor: 22,830; Residential Outdoor: 7,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,060 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2627	0.0000	6.2627	3.0037	0.0000	3.0037			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	6.2627	0.4823	6.7449	3.0037	0.4437	3.4474		1,665.8826	1,665.8826	0.5388		1,679.3521

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	0.0239	0.0153	0.2625	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.4356	78.4356	1.7400e-003	1.6800e-003	78.9808
Total	0.0239	0.0153	0.2625	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.4356	78.4356	1.7400e-003	1.6800e-003	78.9808

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8182	0.0000	2.8182	1.3517	0.0000	1.3517			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	2.8182	0.4823	3.3005	1.3517	0.4437	1.7953	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521

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	0.0239	0.0153	0.2625	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.4356	78.4356	1.7400e-003	1.6800e-003	78.9808
Total	0.0239	0.0153	0.2625	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		78.4356	78.4356	1.7400e-003	1.6800e-003	78.9808

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
Total	1.3015	13.8178	8.6998	0.0206	7.0826	0.5722	7.6548	3.4247	0.5265	3.9512		1,995.5803	1,995.5803	0.6454		2,011.7155

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	0.0298	0.0192	0.3281	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		98.0445	98.0445	2.1700e-003	2.1000e-003	98.7259
Total	0.0298	0.0192	0.3281	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		98.0445	98.0445	2.1700e-003	2.1000e-003	98.7259

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	3.1872	0.5722	3.7594	1.5411	0.5265	2.0676	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5

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	0.0298	0.0192	0.3281	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		98.0445	98.0445	2.1700e-003	2.1000e-003	98.7259
Total	0.0298	0.0192	0.3281	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		98.0445	98.0445	2.1700e-003	2.1000e-003	98.7259

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563

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	6.4800e-003	0.2188	0.0843	1.0800e-003	0.0384	1.2700e-003	0.0397	0.0111	1.2200e-003	0.0123		115.9265	115.9265	3.9500e-003	0.0168	121.0339
Worker	0.0477	0.0307	0.5250	1.5200e-003	0.1788	9.7000e-004	0.1798	0.0474	8.9000e-004	0.0483		156.8713	156.8713	3.4800e-003	3.3700e-003	157.9615
Total	0.0542	0.2495	0.6093	2.6000e-003	0.2173	2.2400e-003	0.2195	0.0585	2.1100e-003	0.0606		272.7978	272.7978	7.4300e-003	0.0202	278.9954

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563

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	6.4800e-003	0.2188	0.0843	1.0800e-003	0.0384	1.2700e-003	0.0397	0.0111	1.2200e-003	0.0123		115.9265	115.9265	3.9500e-003	0.0168	121.0339
Worker	0.0477	0.0307	0.5250	1.5200e-003	0.1788	9.7000e-004	0.1798	0.0474	8.9000e-004	0.0483		156.8713	156.8713	3.4800e-003	3.3700e-003	157.9615
Total	0.0542	0.2495	0.6093	2.6000e-003	0.2173	2.2400e-003	0.2195	0.0585	2.1100e-003	0.0606		272.7978	272.7978	7.4300e-003	0.0202	278.9954

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

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	6.3400e-003	0.2178	0.0831	1.0600e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2200e-003	0.0123		113.8136	113.8136	3.9700e-003	0.0165	118.8356
Worker	0.0447	0.0276	0.4901	1.4700e-003	0.1788	9.2000e-004	0.1798	0.0474	8.5000e-004	0.0483		153.0302	153.0302	3.1400e-003	3.1500e-003	154.0469
Total	0.0511	0.2453	0.5732	2.5300e-003	0.2173	2.2000e-003	0.2195	0.0585	2.0700e-003	0.0606		266.8437	266.8437	7.1100e-003	0.0197	272.8825

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

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	6.3400e-003	0.2178	0.0831	1.0600e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2200e-003	0.0123		113.8136	113.8136	3.9700e-003	0.0165	118.8356
Worker	0.0447	0.0276	0.4901	1.4700e-003	0.1788	9.2000e-004	0.1798	0.0474	8.5000e-004	0.0483		153.0302	153.0302	3.1400e-003	3.1500e-003	154.0469
Total	0.0511	0.2453	0.5732	2.5300e-003	0.2173	2.2000e-003	0.2195	0.0585	2.0700e-003	0.0606		266.8437	266.8437	7.1100e-003	0.0197	272.8825

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7123	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951

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	0.0363	0.0224	0.3982	1.1900e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		124.3370	124.3370	2.5500e-003	2.5600e-003	125.1631
Total	0.0363	0.0224	0.3982	1.1900e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		124.3370	124.3370	2.5500e-003	2.5600e-003	125.1631

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7123	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951

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	0.0363	0.0224	0.3982	1.1900e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		124.3370	124.3370	2.5500e-003	2.5600e-003	125.1631
Total	0.0363	0.0224	0.3982	1.1900e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		124.3370	124.3370	2.5500e-003	2.5600e-003	125.1631

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	6.1610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	6.3318	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

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	8.3800e-003	5.1700e-003	0.0919	2.8000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		28.6932	28.6932	5.9000e-004	5.9000e-004	28.8838
Total	8.3800e-003	5.1700e-003	0.0919	2.8000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		28.6932	28.6932	5.9000e-004	5.9000e-004	28.8838

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	6.1610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	6.3318	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

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	8.3800e-003	5.1700e-003	0.0919	2.8000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		28.6932	28.6932	5.9000e-004	5.9000e-004	28.8838
Total	8.3800e-003	5.1700e-003	0.0919	2.8000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		28.6932	28.6932	5.9000e-004	5.9000e-004	28.8838

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0273	0.0286	0.2755	6.3000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		66.2242	66.2242	3.9000e-003	2.6300e-003	67.1058
Unmitigated	0.0273	0.0286	0.2755	6.3000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		66.2242	66.2242	3.9000e-003	2.6300e-003	67.1058

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		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	9.44	9.54	8.55	31,872	31,872
Total	9.44	9.54	8.55	31,872	31,872

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
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	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Non-Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Single Family Housing	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
NaturalGas Unmitigated	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	65.4733	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Total		7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	0.0654733	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Total		7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

6.0 Area Detail

6.1 Mitigation Measures Area

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Unmitigated	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

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	0.0219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.8200e-003	9.8000e-004	0.0862	0.0000		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		0.1567	0.1567	1.6000e-004		0.1608
Total	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.8200e-003	9.8000e-004	0.0862	0.0000		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		0.1567	0.1567	1.6000e-004		0.1608
Total	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

7.0 Water Detail

7.1 Mitigation Measures Water

Shen Residence -AQGHG - South Coast AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
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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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11.0 Vegetation

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Shen Residence -AQGHG
South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	30.24	1000sqft	0.69	30,240.00	0
Other Non-Asphalt Surfaces	4.09	1000sqft	0.09	4,090.00	0
Recreational Swimming Pool	2.77	1000sqft	0.06	2,770.00	0
Single Family Housing	1.00	Dwelling Unit	0.26	11,274.00	3

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	8			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - guest house is included in Single family residence land use
- Construction Phase - Adjusted construction schedule to reflect the 14 months of construction activity
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Off-road Equipment -
- Grading -

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Architectural Coating -

Vehicle Trips - vehicle trips = 0 because private pool

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating -

Energy Use -

Water And Wastewater -

Solid Waste - solid waste from pool omitted (private). diversion reduced 25% percent per City's Estate's Solid Waste Collection Services Contract

Construction Off-road Equipment Mitigation - Based on Rule 403

Area Mitigation -

Energy Mitigation -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	4.00	6.00
tblConstructionPhase	NumDays	200.00	268.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	10.00	13.00
tblLandUse	LandUseSquareFeet	1,800.00	11,274.00
tblLandUse	LotAcreage	0.32	0.26
tblSolidWaste	SolidWasteGenerationRate	15.79	0.00
tblSolidWaste	SolidWasteGenerationRate	1.23	0.92
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	WD_TR	28.82	0.00

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.4767	13.8388	13.0796	0.0246	7.1944	0.5729	7.7672	3.4544	0.5270	3.9814	0.0000	2,265.8339	2,265.8339	0.6476	0.0204	2,280.4409
2025	6.3407	10.6715	12.9691	0.0245	0.2173	0.3947	0.6119	0.0585	0.3806	0.4391	0.0000	2,260.3444	2,260.3444	0.4140	0.0199	2,274.6255
Maximum	6.3407	13.8388	13.0796	0.0246	7.1944	0.5729	7.7672	3.4544	0.5270	3.9814	0.0000	2,265.8339	2,265.8339	0.6476	0.0204	2,280.4409

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					
2024	1.4767	13.8388	13.0796	0.0246	3.2989	0.5729	3.8718	1.5708	0.5270	2.0978	0.0000	2,265.8339	2,265.8339	0.6476	0.0204	2,280.4409
2025	6.3407	10.6715	12.9691	0.0245	0.2173	0.3947	0.6119	0.0585	0.3806	0.4391	0.0000	2,260.3444	2,260.3444	0.4140	0.0199	2,274.6255
Maximum	6.3407	13.8388	13.0796	0.0246	3.2989	0.5729	3.8718	1.5708	0.5270	2.0978	0.0000	2,265.8339	2,265.8339	0.6476	0.0204	2,280.4409

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	52.56	0.00	46.49	53.62	0.00	42.61	0.00	0.00	0.00	0.00	0.00	0.00

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Energy	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Mobile	0.0263	0.0308	0.2661	6.0000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		63.1592	63.1592	4.0100e-003	2.7300e-003	64.0734
Total	0.5492	0.0585	0.8634	1.9400e-003	0.0687	0.0778	0.1465	0.0183	0.0778	0.0961	9.3669	89.0186	98.3855	0.0323	3.5100e-003	100.2374

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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Energy	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Mobile	0.0263	0.0308	0.2661	6.0000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		63.1592	63.1592	4.0100e-003	2.7300e-003	64.0734
Total	0.5492	0.0585	0.8634	1.9400e-003	0.0687	0.0778	0.1465	0.0183	0.0778	0.0961	9.3669	89.0186	98.3855	0.0323	3.5100e-003	100.2374

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1/1/2024	1/3/2024	5	3	
2	Grading	Grading	1/4/2024	1/11/2024	5	6	
3	Building Construction	Building Construction	1/12/2024	1/21/2025	5	268	
4	Paving	Paving	1/22/2025	2/7/2025	5	13	
5	Architectural Coating	Architectural Coating	2/10/2025	2/26/2025	5	13	

Acres of Grading (Site Preparation Phase): 2.81

Acres of Grading (Grading Phase): 6

Acres of Paving: 0.78

Residential Indoor: 22,830; Residential Outdoor: 7,610; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 2,060 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2627	0.0000	6.2627	3.0037	0.0000	3.0037			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437		1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	6.2627	0.4823	6.7449	3.0037	0.4437	3.4474		1,665.8826	1,665.8826	0.5388		1,679.3521

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	0.0253	0.0168	0.2377	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		73.8865	73.8865	1.7600e-003	1.7800e-003	74.4625
Total	0.0253	0.0168	0.2377	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		73.8865	73.8865	1.7600e-003	1.7800e-003	74.4625

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8182	0.0000	2.8182	1.3517	0.0000	1.3517			0.0000			0.0000
Off-Road	1.1067	11.8407	6.6317	0.0172		0.4823	0.4823		0.4437	0.4437	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521
Total	1.1067	11.8407	6.6317	0.0172	2.8182	0.4823	3.3005	1.3517	0.4437	1.7953	0.0000	1,665.8826	1,665.8826	0.5388		1,679.3521

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	0.0253	0.0168	0.2377	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		73.8865	73.8865	1.7600e-003	1.7800e-003	74.4625
Total	0.0253	0.0168	0.2377	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		73.8865	73.8865	1.7600e-003	1.7800e-003	74.4625

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265		1,995.5803	1,995.5803	0.6454		2,011.7155
Total	1.3015	13.8178	8.6998	0.0206	7.0826	0.5722	7.6548	3.4247	0.5265	3.9512		1,995.5803	1,995.5803	0.6454		2,011.7155

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	0.0316	0.0210	0.2971	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		92.3581	92.3581	2.2100e-003	2.2300e-003	93.0781
Total	0.0316	0.0210	0.2971	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		92.3581	92.3581	2.2100e-003	2.2300e-003	93.0781

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.3015	13.8178	8.6998	0.0206		0.5722	0.5722		0.5265	0.5265	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5
Total	1.3015	13.8178	8.6998	0.0206	3.1872	0.5722	3.7594	1.5411	0.5265	2.0676	0.0000	1,995.580 3	1,995.580 3	0.6454		2,011.715 5

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	0.0316	0.0210	0.2971	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		92.3581	92.3581	2.2100e-003	2.2300e-003	93.0781
Total	0.0316	0.0210	0.2971	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.6000e-004	0.0302		92.3581	92.3581	2.2100e-003	2.2300e-003	93.0781

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.9214	2,001.9214	0.3334		2,010.2563

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	6.1900e-003	0.2297	0.0871	1.0800e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2200e-003	0.0123		116.1396	116.1396	3.9300e-003	0.0169	121.2598
Worker	0.0505	0.0335	0.4753	1.4300e-003	0.1788	9.7000e-004	0.1798	0.0474	8.9000e-004	0.0483		147.7729	147.7729	3.5300e-003	3.5700e-003	148.9249
Total	0.0567	0.2632	0.5624	2.5100e-003	0.2173	2.2500e-003	0.2195	0.0585	2.1100e-003	0.0606		263.9124	263.9124	7.4600e-003	0.0204	270.1847

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.9214	2,001.9214	0.3334		2,010.2563

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	6.1900e-003	0.2297	0.0871	1.0800e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2200e-003	0.0123		116.1396	116.1396	3.9300e-003	0.0169	121.2598
Worker	0.0505	0.0335	0.4753	1.4300e-003	0.1788	9.7000e-004	0.1798	0.0474	8.9000e-004	0.0483		147.7729	147.7729	3.5300e-003	3.5700e-003	148.9249
Total	0.0567	0.2632	0.5624	2.5100e-003	0.2173	2.2500e-003	0.2195	0.0585	2.1100e-003	0.0606		263.9124	263.9124	7.4600e-003	0.0204	270.1847

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248

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	6.0400e-003	0.2286	0.0858	1.0600e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2300e-003	0.0123		114.0259	114.0259	3.9500e-003	0.0166	119.0604
Worker	0.0475	0.0301	0.4440	1.3800e-003	0.1788	9.2000e-004	0.1798	0.0474	8.5000e-004	0.0483		144.1661	144.1661	3.1900e-003	3.3400e-003	145.2403
Total	0.0535	0.2587	0.5298	2.4400e-003	0.2173	2.2000e-003	0.2195	0.0585	2.0800e-003	0.0606		258.1919	258.1919	7.1400e-003	0.0199	264.3007

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248

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	6.0400e-003	0.2286	0.0858	1.0600e-003	0.0384	1.2800e-003	0.0397	0.0111	1.2300e-003	0.0123		114.0259	114.0259	3.9500e-003	0.0166	119.0604
Worker	0.0475	0.0301	0.4440	1.3800e-003	0.1788	9.2000e-004	0.1798	0.0474	8.5000e-004	0.0483		144.1661	144.1661	3.1900e-003	3.3400e-003	145.2403
Total	0.0535	0.2587	0.5298	2.4400e-003	0.2173	2.2000e-003	0.2195	0.0585	2.0800e-003	0.0606		258.1919	258.1919	7.1400e-003	0.0199	264.3007

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7123	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951

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	0.0386	0.0245	0.3608	1.1200e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		117.1349	117.1349	2.5900e-003	2.7100e-003	118.0077
Total	0.0386	0.0245	0.3608	1.1200e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		117.1349	117.1349	2.5900e-003	2.7100e-003	118.0077

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.1391					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7123	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951

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	0.0386	0.0245	0.3608	1.1200e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		117.1349	117.1349	2.5900e-003	2.7100e-003	118.0077
Total	0.0386	0.0245	0.3608	1.1200e-003	0.1453	7.5000e-004	0.1461	0.0385	6.9000e-004	0.0392		117.1349	117.1349	2.5900e-003	2.7100e-003	118.0077

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	6.1610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	6.3318	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

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	8.9000e-003	5.6500e-003	0.0833	2.6000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		27.0311	27.0311	6.0000e-004	6.3000e-004	27.2326
Total	8.9000e-003	5.6500e-003	0.0833	2.6000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		27.0311	27.0311	6.0000e-004	6.3000e-004	27.2326

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	6.1610					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	6.3318	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

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	8.9000e-003	5.6500e-003	0.0833	2.6000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		27.0311	27.0311	6.0000e-004	6.3000e-004	27.2326
Total	8.9000e-003	5.6500e-003	0.0833	2.6000e-004	0.0335	1.7000e-004	0.0337	8.8900e-003	1.6000e-004	9.0500e-003		27.0311	27.0311	6.0000e-004	6.3000e-004	27.2326

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0263	0.0308	0.2661	6.0000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		63.1592	63.1592	4.0100e-003	2.7300e-003	64.0734
Unmitigated	0.0263	0.0308	0.2661	6.0000e-004	0.0687	4.5000e-004	0.0691	0.0183	4.2000e-004	0.0187		63.1592	63.1592	4.0100e-003	2.7300e-003	64.0734

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		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	9.44	9.54	8.55	31,872	31,872
Total	9.44	9.54	8.55	31,872	31,872

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
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	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Other Non-Asphalt Surfaces	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657
Single Family Housing	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
NaturalGas Unmitigated	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	65.4733	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Total		7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
Recreational Swimming Pool	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	0.0654733	7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485
Total		7.1000e-004	6.0300e-003	2.5700e-003	4.0000e-005		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004		7.7027	7.7027	1.5000e-004	1.4000e-004	7.7485

6.0 Area Detail

6.1 Mitigation Measures Area

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155
Unmitigated	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

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	0.0219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.8200e-003	9.8000e-004	0.0862	0.0000		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		0.1567	0.1567	1.6000e-004		0.1608
Total	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0219					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2354					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.8200e-003	9.8000e-004	0.0862	0.0000		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		0.1567	0.1567	1.6000e-004		0.1608
Total	0.5222	0.0217	0.5948	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1567	27.5236	0.0281	6.4000e-004	28.4155

7.0 Water Detail

7.1 Mitigation Measures Water

Shen Residence -AQGHG - South Coast AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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
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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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11.0 Vegetation
