

APPENDIX A

Air Quality/GHG/Energy Analysis

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

1 O'Hill Ridge - Garg Residence Project
Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	5.59	1000sqft	0.13	5,595.00	0
City Park	5.03	Acre	5.03	219,106.80	0
Recreational Swimming Pool	5.36	1000sqft	0.12	5,357.00	0
Single Family Housing	2.00	Dwelling Unit	0.72	31,319.00	6

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

Project Characteristics -

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Demolition -

Grading -

Vehicle Trips - Conservative assumption based on ITE Trip Generation Rate Manual, 10th Edition.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Area Mitigation -

Energy Mitigation - Percent improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards. Additionally, the project would be 10% more efficient than 2019 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	660.00
tblConstructionPhase	NumDays	20.00	132.00
tblGrading	MaterialExported	0.00	34,607.00
tblLandUse	LandUseSquareFeet	5,590.00	5,595.00
tblLandUse	LandUseSquareFeet	5,360.00	5,357.00
tblLandUse	LandUseSquareFeet	3,600.00	31,319.00
tblLandUse	LotAcreage	0.65	0.72
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	9.91	12.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	8.62	12.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	9.52	12.00

2.0 Emissions Summary

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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					
2020	2.7476	35.5507	18.9042	0.0559	7.7536	1.3043	9.0578	3.6790	1.2010	4.8800	0.0000	5,780.727 0	5,780.727 0	1.2292	0.0000	5,811.4579
2021	2.5935	33.2024	20.3545	0.0555	7.7535	1.1877	8.9412	3.6790	1.0936	4.7726	0.0000	5,740.949 2	5,740.949 2	1.2248	0.0000	5,771.568 0
2022	2.1819	19.1889	19.9195	0.0453	1.3270	0.8226	2.1496	0.3574	0.7739	1.1313	0.0000	4,470.982 3	4,470.982 3	0.7119	0.0000	4,488.780 8
2023	5.2154	18.4478	21.8159	0.0494	1.5394	0.7819	2.3213	0.4137	0.7398	1.1535	0.0000	4,863.236 8	4,863.236 8	0.7201	0.0000	4,881.240 0
Maximum	5.2154	35.5507	21.8159	0.0559	7.7536	1.3043	9.0578	3.6790	1.2010	4.8800	0.0000	5,780.727 0	5,780.727 0	1.2292	0.0000	5,811.457 9

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174
Energy	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338
Mobile	0.0324	0.1182	0.4351	1.7600e-003	0.1740	1.2300e-003	0.1752	0.0465	1.1400e-003	0.0477		178.7204	178.7204	7.1700e-003		178.8997
Total	1.2506	0.1747	1.6244	4.4400e-003	0.1740	0.1560	0.3300	0.0465	0.1559	0.2024	18.7338	231.6559	250.3897	0.0637	1.5700e-003	252.4509

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	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0300e-003	7.0000e-004	38.6521
Energy	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
Mobile	0.0324	0.1182	0.4351	1.7600e-003	0.1740	1.2300e-003	0.1752	0.0465	1.1400e-003	0.0477		178.7204	178.7204	7.1700e-003		178.8997
Total	0.7293	0.1566	0.6172	2.0000e-003	0.1740	5.0900e-003	0.1791	0.0465	5.0000e-003	0.0515	0.0000	225.5337	225.5337	8.3600e-003	8.5000e-004	225.9968

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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	41.69	10.35	62.00	54.95	0.00	96.74	45.73	0.00	96.79	74.55	100.00	2.64	9.93	86.87	45.86	10.48

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	10/1/2020	4/2/2021	5	132	
2	Building Construction	Building Construction	4/3/2021	10/13/2023	5	660	
3	Architectural Coating	Architectural Coating	7/13/2023	10/13/2023	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0.13

Residential Indoor: 63,421; Residential Outdoor: 21,140; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 336 (Architectural Coating – sqft)

OffRoad Equipment

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	6	15.00	0.00	4,326.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.2 Grading - 2020

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					6.5820	0.0000	6.5820	3.3720	0.0000	3.3720			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.5820	1.2734	7.8554	3.3720	1.1716	4.5435		2,872.4851	2,872.4851	0.9290		2,895.7106

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	0.2536	9.1249	2.3974	0.0247	1.0039	0.0297	1.0336	0.2626	0.0284	0.2910		2,753.4987	2,753.4987	0.2967		2,760.9159
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		154.7432	154.7432	3.5300e-003		154.8314
Total	0.3188	9.1649	2.8512	0.0263	1.1716	0.0308	1.2024	0.3070	0.0295	0.3365		2,908.2419	2,908.2419	0.3002		2,915.7473

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3.2 Grading - 2020

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					2.4386	0.0000	2.4386	1.2493	0.0000	1.2493			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	2.4386	1.2734	3.7121	1.2493	1.1716	2.4209	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

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	0.2536	9.1249	2.3974	0.0247	0.7786	0.0297	0.8083	0.2073	0.0284	0.2357		2,753.498 7	2,753.498 7	0.2967		2,760.915 9
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0651	0.0399	0.4538	1.5500e-003	0.1298	1.1100e-003	0.1309	0.0352	1.0200e-003	0.0362		154.7432	154.7432	3.5300e-003		154.8314
Total	0.3188	9.1649	2.8512	0.0263	0.9084	0.0308	0.9392	0.2424	0.0295	0.2719		2,908.241 9	2,908.241 9	0.3002		2,915.747 3

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3.2 Grading - 2021

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					6.5820	0.0000	6.5820	3.3720	0.0000	3.3720			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5820	1.1599	7.7419	3.3720	1.0671	4.4391		2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.2418	8.4297	2.4027	0.0244	1.0039	0.0267	1.0305	0.2626	0.0255	0.2881		2,719.6459	2,719.6459	0.2927		2,726.9637
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0360	0.4204	1.5000e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455		149.3748	149.3748	3.2000e-003		149.4548
Total	0.3031	8.4657	2.8231	0.0259	1.1715	0.0277	1.1993	0.3070	0.0265	0.3335		2,869.0207	2,869.0207	0.2959		2,876.4185

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.2 Grading - 2021

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					2.4386	0.0000	2.4386	1.2493	0.0000	1.2493			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	2.4386	1.1599	3.5985	1.2493	1.0671	2.3164	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.2418	8.4297	2.4027	0.0244	0.7786	0.0267	0.8052	0.2073	0.0255	0.2327		2,719.6459	2,719.6459	0.2927		2,726.9637
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0613	0.0360	0.4204	1.5000e-003	0.1298	1.0900e-003	0.1309	0.0352	1.0000e-003	0.0362		149.3748	149.3748	3.2000e-003		149.4548
Total	0.3031	8.4657	2.8231	0.0259	0.9083	0.0277	0.9361	0.2424	0.0265	0.2689		2,869.0207	2,869.0207	0.2959		2,876.4185

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.3 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

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
Vendor	0.1064	3.5565	1.0607	9.1500e-003	0.2428	7.6800e-003	0.2505	0.0699	7.3500e-003	0.0772		996.3182	996.3182	0.0840		998.4184
Worker	0.3964	0.2328	2.7186	9.6900e-003	1.0842	7.0200e-003	1.0913	0.2875	6.4600e-003	0.2940		965.9572	965.9572	0.0207		966.4743
Total	0.5028	3.7893	3.7793	0.0188	1.3270	0.0147	1.3417	0.3574	0.0138	0.3712		1,962.2754	1,962.2754	0.1047		1,964.8928

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3.3 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

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
Vendor	0.1064	3.5565	1.0607	9.1500e-003	0.1977	7.6800e-003	0.2054	0.0588	7.3500e-003	0.0662		996.3182	996.3182	0.0840		998.4184
Worker	0.3964	0.2328	2.7186	9.6900e-003	0.8392	7.0200e-003	0.8462	0.2274	6.4600e-003	0.2339		965.9572	965.9572	0.0207		966.4743
Total	0.5028	3.7893	3.7793	0.0188	1.0369	0.0147	1.0516	0.2862	0.0138	0.3000		1,962.2754	1,962.2754	0.1047		1,964.8928

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	3.3624	1.0227	9.0400e-003	0.2428	6.6900e-003	0.2495	0.0699	6.4000e-003	0.0763		986.4393	986.4393	0.0812		988.4699
Worker	0.3756	0.2109	2.5334	9.3300e-003	1.0842	6.8800e-003	1.0911	0.2875	6.3400e-003	0.2939		930.2094	930.2094	0.0188		930.6787
Total	0.4757	3.5733	3.5561	0.0184	1.3270	0.0136	1.3406	0.3574	0.0127	0.3701		1,916.6487	1,916.6487	0.1000		1,919.1485

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1001	3.3624	1.0227	9.0400e-003	0.1977	6.6900e-003	0.2044	0.0588	6.4000e-003	0.0652		986.4393	986.4393	0.0812		988.4699
Worker	0.3756	0.2109	2.5334	9.3300e-003	0.8392	6.8800e-003	0.8460	0.2274	6.3400e-003	0.2337		930.2094	930.2094	0.0188		930.6787
Total	0.4757	3.5733	3.5561	0.0184	1.0369	0.0136	1.0504	0.2862	0.0127	0.2989		1,916.6487	1,916.6487	0.1000		1,919.1485

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0762	2.5310	0.9398	8.7500e-003	0.2428	3.2500e-003	0.2460	0.0699	3.1100e-003	0.0730		956.8752	956.8752	0.0751		958.7527
Worker	0.3568	0.1914	2.3590	8.9700e-003	1.0842	6.7600e-003	1.0910	0.2875	6.2300e-003	0.2938		894.4936	894.4936	0.0170		894.9189
Total	0.4330	2.7224	3.2987	0.0177	1.3270	0.0100	1.3370	0.3574	9.3400e-003	0.3667		1,851.3688	1,851.3688	0.0921		1,853.6715

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0762	2.5310	0.9398	8.7500e-003	0.1977	3.2500e-003	0.2010	0.0588	3.1100e-003	0.0619		956.8752	956.8752	0.0751		958.7527
Worker	0.3568	0.1914	2.3590	8.9700e-003	0.8392	6.7600e-003	0.8459	0.2274	6.2300e-003	0.2336		894.4936	894.4936	0.0170		894.9189
Total	0.4330	2.7224	3.2987	0.0177	1.0369	0.0100	1.0469	0.2862	9.3400e-003	0.2955		1,851.3688	1,851.3688	0.0921		1,853.6715

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	3.1398	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0375	0.4621	1.7600e-003	0.2124	1.3200e-003	0.2137	0.0563	1.2200e-003	0.0575		175.2101	175.2101	3.3300e-003		175.2934
Total	0.0699	0.0375	0.4621	1.7600e-003	0.2124	1.3200e-003	0.2137	0.0563	1.2200e-003	0.0575		175.2101	175.2101	3.3300e-003		175.2934

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

3.4 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	3.1398	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0699	0.0375	0.4621	1.7600e-003	0.1644	1.3200e-003	0.1657	0.0445	1.2200e-003	0.0458		175.2101	175.2101	3.3300e-003		175.2934
Total	0.0699	0.0375	0.4621	1.7600e-003	0.1644	1.3200e-003	0.1657	0.0445	1.2200e-003	0.0458		175.2101	175.2101	3.3300e-003		175.2934

4.0 Operational Detail - Mobile

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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	0.0324	0.1182	0.4351	1.7600e-003	0.1740	1.2300e-003	0.1752	0.0465	1.1400e-003	0.0477		178.7204	178.7204	7.1700e-003		178.8997
Unmitigated	0.0324	0.1182	0.4351	1.7600e-003	0.1740	1.2300e-003	0.1752	0.0465	1.1400e-003	0.0477		178.7204	178.7204	7.1700e-003		178.8997

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	24.00	24.00	24.00	82,012	82,012
Total	24.00	24.00	24.00	82,012	82,012

4.3 Trip Type Information

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Enclosed Parking Structure	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Recreational Swimming Pool	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Single Family Housing	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
NaturalGas Unmitigated	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	141.397	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338
Total		1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	0.0713583	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
Total		7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

	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	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0300e-003	7.0000e-004	38.6521
Unmitigated	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174

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	0.0541					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5241	0.0415	1.0171	2.5900e-003		0.1528	0.1528		0.1528	0.1528	18.7338	36.0000	54.7338	0.0559	1.2700e-003	56.5095
Landscaping	5.1200e-003	1.9200e-003	0.1667	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.3006	0.3006	2.9000e-004		0.3080
Total	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174

1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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	0.0541					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.4900e-003	0.0299	0.0127	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	38.1177	38.1177	7.3000e-004	7.0000e-004	38.3442
Landscaping	5.1200e-003	1.9200e-003	0.1667	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.3006	0.3006	2.9000e-004		0.3080
Total	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0200e-003	7.0000e-004	38.6521

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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1 O'Hill Ridge - Garg Residence Project - Orange County, Winter

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

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

1 O'Hill Ridge - Garg Residence Project
Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	5.59	1000sqft	0.13	5,595.00	0
City Park	5.03	Acre	5.03	219,106.80	0
Recreational Swimming Pool	5.36	1000sqft	0.12	5,357.00	0
Single Family Housing	2.00	Dwelling Unit	0.72	31,319.00	6

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

Project Characteristics -

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Demolition -

Grading -

Vehicle Trips - Conservative assumption based on ITE Trip Generation Rate Manual, 10th Edition.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Area Mitigation -

Energy Mitigation - Percent improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards. Additionally, the project would be 10% more efficient than 2019 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	660.00
tblConstructionPhase	NumDays	20.00	132.00
tblGrading	MaterialExported	0.00	34,607.00
tblLandUse	LandUseSquareFeet	5,590.00	5,595.00
tblLandUse	LandUseSquareFeet	5,360.00	5,357.00
tblLandUse	LandUseSquareFeet	3,600.00	31,319.00
tblLandUse	LotAcreage	0.65	0.72
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	9.91	12.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	8.62	12.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	9.52	12.00

2.0 Emissions Summary

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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					
2020	2.7339	35.4337	18.8209	0.0564	7.7536	1.3037	9.0573	3.6790	1.2005	4.8795	0.0000	5,831.695 0	5,831.695 0	1.2226	0.0000	5,862.258 6
2021	2.5805	33.1008	20.4882	0.0559	7.7535	1.1872	8.9407	3.6790	1.0932	4.7721	0.0000	5,791.246 1	5,791.246 1	1.2185	0.0000	5,821.709 2
2022	2.1325	19.1803	20.0467	0.0460	1.3270	0.8223	2.1493	0.3574	0.7737	1.1311	0.0000	4,548.518 7	4,548.518 7	0.7094	0.0000	4,566.253 2
2023	5.1599	18.4418	21.9931	0.0502	1.5394	0.7817	2.3211	0.4137	0.7396	1.1533	0.0000	4,947.440 3	4,947.440 3	0.7184	0.0000	4,965.398 8
Maximum	5.1599	35.4337	21.9931	0.0564	7.7536	1.3037	9.0573	3.6790	1.2005	4.8795	0.0000	5,831.695 0	5,831.695 0	1.2226	0.0000	5,862.258 6

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174
Energy	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338
Mobile	0.0330	0.1148	0.4569	1.8400e-003	0.1740	1.2200e-003	0.1752	0.0465	1.1300e-003	0.0477		186.9071	186.9071	7.2100e-003		187.0873
Total	1.2512	0.1713	1.6462	4.5200e-003	0.1740	0.1560	0.3300	0.0465	0.1559	0.2024	18.7338	239.8426	258.5765	0.0637	1.5700e-003	260.6385

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	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0300e-003	7.0000e-004	38.6521
Energy	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
Mobile	0.0330	0.1148	0.4569	1.8400e-003	0.1740	1.2200e-003	0.1752	0.0465	1.1300e-003	0.0477		186.9071	186.9071	7.2100e-003		187.0873
Total	0.7299	0.1532	0.6391	2.0800e-003	0.1740	5.0800e-003	0.1791	0.0465	4.9900e-003	0.0515	0.0000	233.7205	233.7205	8.4000e-003	8.5000e-004	234.1844

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

	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	41.67	10.56	61.18	53.98	0.00	96.74	45.73	0.00	96.80	74.55	100.00	2.55	9.61	86.81	45.86	10.15

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	10/1/2020	4/2/2021	5	132	
2	Building Construction	Building Construction	4/3/2021	10/13/2023	5	660	
3	Architectural Coating	Architectural Coating	7/13/2023	10/13/2023	5	67	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0.13

Residential Indoor: 63,421; Residential Outdoor: 21,140; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 336 (Architectural Coating – sqft)

OffRoad Equipment

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	6	15.00	0.00	4,326.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.2 Grading - 2020

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					6.5820	0.0000	6.5820	3.3720	0.0000	3.3720			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716		2,872.4851	2,872.4851	0.9290		2,895.7106
Total	2.4288	26.3859	16.0530	0.0297	6.5820	1.2734	7.8554	3.3720	1.1716	4.5435		2,872.4851	2,872.4851	0.9290		2,895.7106

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	0.2475	9.0115	2.2770	0.0251	1.0039	0.0292	1.0331	0.2626	0.0279	0.2905		2,795.7034	2,795.7034	0.2898		2,802.9483
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1677	1.1100e-003	0.1688	0.0445	1.0200e-003	0.0455		163.5065	163.5065	3.7300e-003		163.5997
Total	0.3051	9.0478	2.7680	0.0267	1.1716	0.0303	1.2019	0.3070	0.0289	0.3360		2,959.2099	2,959.2099	0.2935		2,966.5480

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.2 Grading - 2020

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					2.4386	0.0000	2.4386	1.2493	0.0000	1.2493			0.0000			0.0000
Off-Road	2.4288	26.3859	16.0530	0.0297		1.2734	1.2734		1.1716	1.1716	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6
Total	2.4288	26.3859	16.0530	0.0297	2.4386	1.2734	3.7121	1.2493	1.1716	2.4209	0.0000	2,872.485 1	2,872.485 1	0.9290		2,895.710 6

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	0.2475	9.0115	2.2770	0.0251	0.7786	0.0292	0.8078	0.2073	0.0279	0.2352		2,795.703 4	2,795.703 4	0.2898		2,802.948 3
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0576	0.0363	0.4910	1.6400e-003	0.1298	1.1100e-003	0.1309	0.0352	1.0200e-003	0.0362		163.5065	163.5065	3.7300e-003		163.5997
Total	0.3051	9.0478	2.7680	0.0267	0.9084	0.0303	0.9387	0.2424	0.0289	0.2714		2,959.209 9	2,959.209 9	0.2935		2,966.548 0

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.2 Grading - 2021

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					6.5820	0.0000	6.5820	3.3720	0.0000	3.3720			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	6.5820	1.1599	7.7419	3.3720	1.0671	4.4391		2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.2360	8.3313	2.2887	0.0247	1.0039	0.0262	1.0301	0.2626	0.0250	0.2876		2,761.4884	2,761.4884	0.2863		2,768.6461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0328	0.4556	1.5800e-003	0.1677	1.0900e-003	0.1688	0.0445	1.0000e-003	0.0455		157.8291	157.8291	3.3800e-003		157.9136
Total	0.2902	8.3641	2.7443	0.0263	1.1715	0.0273	1.1988	0.3070	0.0260	0.3331		2,919.3176	2,919.3176	0.2897		2,926.5597

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.2 Grading - 2021

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					2.4386	0.0000	2.4386	1.2493	0.0000	1.2493			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	2.2903	24.7367	15.8575	0.0296	2.4386	1.1599	3.5985	1.2493	1.0671	2.3164	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495

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	0.2360	8.3313	2.2887	0.0247	0.7786	0.0262	0.8047	0.2073	0.0250	0.2323		2,761.4884	2,761.4884	0.2863		2,768.6461
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0541	0.0328	0.4556	1.5800e-003	0.1298	1.0900e-003	0.1309	0.0352	1.0000e-003	0.0362		157.8291	157.8291	3.3800e-003		157.9136
Total	0.2902	8.3641	2.7443	0.0263	0.9083	0.0273	0.9356	0.2424	0.0260	0.2685		2,919.3176	2,919.3176	0.2897		2,926.5597

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

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
Vendor	0.1014	3.5649	0.9668	9.3700e-003	0.2428	7.4000e-003	0.2502	0.0699	7.0800e-003	0.0770		1,021.4115	1,021.4115	0.0801		1,023.4138
Worker	0.3501	0.2118	2.9462	0.0102	1.0842	7.0200e-003	1.0913	0.2875	6.4600e-003	0.2940		1,020.6283	1,020.6283	0.0219		1,021.1747
Total	0.4515	3.7768	3.9130	0.0196	1.3270	0.0144	1.3414	0.3574	0.0135	0.3710		2,042.0398	2,042.0398	0.1020		2,044.5886

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

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
Vendor	0.1014	3.5649	0.9668	9.3700e-003	0.1977	7.4000e-003	0.2051	0.0588	7.0800e-003	0.0659		1,021.4115	1,021.4115	0.0801		1,023.4138
Worker	0.3501	0.2118	2.9462	0.0102	0.8392	7.0200e-003	0.8462	0.2274	6.4600e-003	0.2339		1,020.6283	1,020.6283	0.0219		1,021.1747
Total	0.4515	3.7768	3.9130	0.0196	1.0369	0.0144	1.0513	0.2862	0.0135	0.2997		2,042.0398	2,042.0398	0.1020		2,044.5886

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0953	3.3727	0.9336	9.2600e-003	0.2428	6.4400e-003	0.2492	0.0699	6.1600e-003	0.0760		1,011.3799	1,011.3799	0.0776		1,013.3195
Worker	0.3309	0.1919	2.7497	9.8500e-003	1.0842	6.8800e-003	1.0911	0.2875	6.3400e-003	0.2939		982.8052	982.8052	0.0199		983.3014
Total	0.4262	3.5646	3.6833	0.0191	1.3270	0.0133	1.3403	0.3574	0.0125	0.3699		1,994.1851	1,994.1851	0.0974		1,996.6210

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0953	3.3727	0.9336	9.2600e-003	0.1977	6.4400e-003	0.2042	0.0588	6.1600e-003	0.0650		1,011.3799	1,011.3799	0.0776		1,013.3195
Worker	0.3309	0.1919	2.7497	9.8500e-003	0.8392	6.8800e-003	0.8460	0.2274	6.3400e-003	0.2337		982.8052	982.8052	0.0199		983.3014
Total	0.4262	3.5646	3.6833	0.0191	1.0369	0.0133	1.0502	0.2862	0.0125	0.2987		1,994.1851	1,994.1851	0.0974		1,996.6210

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0726	2.5456	0.8713	8.9600e-003	0.2428	3.0600e-003	0.2458	0.0699	2.9300e-003	0.0728		980.6529	980.6529	0.0721		982.4560
Worker	0.3134	0.1743	2.5644	9.4700e-003	1.0842	6.7600e-003	1.0910	0.2875	6.2300e-003	0.2938		945.0220	945.0220	0.0180		945.4721
Total	0.3859	2.7198	3.4357	0.0184	1.3270	9.8200e-003	1.3368	0.3574	9.1600e-003	0.3666		1,925.6749	1,925.6749	0.0901		1,927.9282

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.3 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0726	2.5456	0.8713	8.9600e-003	0.1977	3.0600e-003	0.2008	0.0588	2.9300e-003	0.0617		980.6529	980.6529	0.0721		982.4560
Worker	0.3134	0.1743	2.5644	9.4700e-003	0.8392	6.7600e-003	0.8459	0.2274	6.2300e-003	0.2336		945.0220	945.0220	0.0180		945.4721
Total	0.3859	2.7198	3.4357	0.0184	1.0369	9.8200e-003	1.0467	0.2862	9.1600e-003	0.2953		1,925.6749	1,925.6749	0.0901		1,927.9282

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	3.1398	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0341	0.5023	1.8600e-003	0.2124	1.3200e-003	0.2137	0.0563	1.2200e-003	0.0575		185.1074	185.1074	3.5300e-003		185.1956
Total	0.0614	0.0341	0.5023	1.8600e-003	0.2124	1.3200e-003	0.2137	0.0563	1.2200e-003	0.0575		185.1074	185.1074	3.5300e-003		185.1956

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

3.4 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	2.9482					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	3.1398	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0614	0.0341	0.5023	1.8600e-003	0.1644	1.3200e-003	0.1657	0.0445	1.2200e-003	0.0458		185.1074	185.1074	3.5300e-003		185.1956
Total	0.0614	0.0341	0.5023	1.8600e-003	0.1644	1.3200e-003	0.1657	0.0445	1.2200e-003	0.0458		185.1074	185.1074	3.5300e-003		185.1956

4.0 Operational Detail - Mobile

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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	0.0330	0.1148	0.4569	1.8400e-003	0.1740	1.2200e-003	0.1752	0.0465	1.1300e-003	0.0477		186.9071	186.9071	7.2100e-003		187.0873
Unmitigated	0.0330	0.1148	0.4569	1.8400e-003	0.1740	1.2200e-003	0.1752	0.0465	1.1300e-003	0.0477		186.9071	186.9071	7.2100e-003		187.0873

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	24.00	24.00	24.00	82,012	82,012
Total	24.00	24.00	24.00	82,012	82,012

4.3 Trip Type Information

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Enclosed Parking Structure	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Recreational Swimming Pool	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Single Family Housing	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
NaturalGas Unmitigated	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	141.397	1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338
Total		1.5200e-003	0.0130	5.5400e-003	8.0000e-005		1.0500e-003	1.0500e-003		1.0500e-003	1.0500e-003		16.6349	16.6349	3.2000e-004	3.0000e-004	16.7338

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	0.0713583	7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450
Total		7.7000e-004	6.5800e-003	2.8000e-003	4.0000e-005		5.3000e-004	5.3000e-004		5.3000e-004	5.3000e-004		8.3951	8.3951	1.6000e-004	1.5000e-004	8.4450

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

	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	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0300e-003	7.0000e-004	38.6521
Unmitigated	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174

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	0.0541					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.5241	0.0415	1.0171	2.5900e-003		0.1528	0.1528		0.1528	0.1528	18.7338	36.0000	54.7338	0.0559	1.2700e-003	56.5095
Landscaping	5.1200e-003	1.9200e-003	0.1667	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.3006	0.3006	2.9000e-004		0.3080
Total	1.2167	0.0434	1.1838	2.6000e-003		0.1537	0.1537		0.1537	0.1537	18.7338	36.3006	55.0344	0.0562	1.2700e-003	56.8174

1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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	0.0541					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.4900e-003	0.0299	0.0127	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	38.1177	38.1177	7.3000e-004	7.0000e-004	38.3442
Landscaping	5.1200e-003	1.9200e-003	0.1667	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004		0.3006	0.3006	2.9000e-004		0.3080
Total	0.6961	0.0318	0.1794	2.0000e-004		3.3300e-003	3.3300e-003		3.3300e-003	3.3300e-003	0.0000	38.4183	38.4183	1.0200e-003	7.0000e-004	38.6521

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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1 O'Hill Ridge - Garg Residence Project - Orange County, Summer

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

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

1 O'Hill Ridge - Garg Residence Project
Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	5.59	1000sqft	0.13	5,595.00	0
City Park	5.03	Acre	5.03	219,106.80	0
Recreational Swimming Pool	5.36	1000sqft	0.12	5,357.00	0
Single Family Housing	2.00	Dwelling Unit	0.72	31,319.00	6

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MW hr)	720.49	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

Project Characteristics -

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Demolition -

Grading -

Vehicle Trips - Conservative assumption based on ITE Trip Generation Rate Manual, 10th Edition.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Construction Off-road Equipment Mitigation - Per SCAQMD standards and regulations.

Area Mitigation -

Energy Mitigation - Percent improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards. Additionally, the project would be 10% more efficient than 2019 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	67.00
tblConstructionPhase	NumDays	230.00	660.00
tblConstructionPhase	NumDays	20.00	132.00
tblGrading	MaterialExported	0.00	34,607.00
tblLandUse	LandUseSquareFeet	5,590.00	5,595.00
tblLandUse	LandUseSquareFeet	5,360.00	5,357.00
tblLandUse	LandUseSquareFeet	3,600.00	31,319.00
tblLandUse	LotAcreage	0.65	0.72
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	9.91	12.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	8.62	12.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	9.52	12.00

2.0 Emissions Summary

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

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					
2020	0.0903	1.1790	0.6220	1.8500e-003	0.2737	0.0430	0.3167	0.1233	0.0396	0.1629	0.0000	173.8617	173.8617	0.0367	0.0000	174.7789
2021	0.3154	3.1769	2.6014	6.3300e-003	0.4008	0.1341	0.5349	0.1576	0.1253	0.2829	0.0000	574.6639	574.6639	0.1001	0.0000	577.1674
2022	0.2782	2.5030	2.5922	5.9200e-003	0.1695	0.1069	0.2765	0.0457	0.1006	0.1463	0.0000	530.6593	530.6593	0.0838	0.0000	532.7532
2023	0.3088	1.8029	2.0826	4.7600e-003	0.1407	0.0752	0.2158	0.0379	0.0709	0.1088	0.0000	426.2605	426.2605	0.0656	0.0000	427.8998
Maximum	0.3154	3.1769	2.6014	6.3300e-003	0.4008	0.1341	0.5349	0.1576	0.1253	0.2829	0.0000	574.6639	574.6639	0.1001	0.0000	577.1674

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2.1 Overall Construction

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					
2020	0.0903	1.1790	0.6220	1.8500e-003	0.1168	0.0430	0.1598	0.0499	0.0396	0.0895	0.0000	173.8616	173.8616	0.0367	0.0000	174.7788
2021	0.3154	3.1769	2.6014	6.3300e-003	0.2162	0.1341	0.3503	0.0774	0.1253	0.2026	0.0000	574.6635	574.6635	0.1001	0.0000	577.1670
2022	0.2782	2.5030	2.5922	5.9200e-003	0.1326	0.1069	0.2395	0.0367	0.1006	0.1373	0.0000	530.6589	530.6589	0.0838	0.0000	532.7529
2023	0.3088	1.8029	2.0826	4.7600e-003	0.1100	0.0752	0.1851	0.0304	0.0709	0.1012	0.0000	426.2602	426.2602	0.0656	0.0000	427.8995
Maximum	0.3154	3.1769	2.6014	6.3300e-003	0.2162	0.1341	0.3503	0.0774	0.1253	0.2026	0.0000	574.6635	574.6635	0.1001	0.0000	577.1670

	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	41.55	0.00	30.44	46.71	0.00	24.29	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	10-1-2020	12-31-2020	1.2584	1.2584
2	1-1-2021	3-31-2021	1.1506	1.1506
3	4-1-2021	6-30-2021	0.7744	0.7744
4	7-1-2021	9-30-2021	0.7742	0.7742
5	10-1-2021	12-31-2021	0.7763	0.7763
6	1-1-2022	3-31-2022	0.6869	0.6869
7	4-1-2022	6-30-2022	0.6927	0.6927
8	7-1-2022	9-30-2022	0.7003	0.7003

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9	10-1-2022	12-31-2022	0.7022	0.7022
10	1-1-2023	3-31-2023	0.6143	0.6143
11	4-1-2023	6-30-2023	0.6196	0.6196
12	7-1-2023	9-30-2023	0.7560	0.7560
		Highest	1.2584	1.2584

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	0.1327	7.6000e-004	0.0336	3.0000e-005		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.2124	0.4423	0.6548	6.7000e-004	1.0000e-005	0.6757
Energy	2.8000e-004	2.3800e-003	1.0100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	18.3627	18.3627	6.8000e-004	1.8000e-004	18.4335
Mobile	5.7300e-003	0.0219	0.0803	3.2000e-004	0.0311	2.2000e-004	0.0313	8.3300e-003	2.1000e-004	8.5400e-003	0.0000	29.8647	29.8647	1.1800e-003	0.0000	29.8942
Waste						0.0000	0.0000		0.0000	0.0000	6.7880	0.0000	6.7880	0.4012	0.0000	16.8170
Water						0.0000	0.0000		0.0000	0.0000	0.1419	24.6674	24.8093	0.0156	5.5000e-004	25.3623
Total	0.1387	0.0250	0.1149	3.7000e-004	0.0311	2.4300e-003	0.0335	8.3300e-003	2.4200e-003	0.0108	7.1424	73.3371	80.4795	0.4193	7.4000e-004	91.1829

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1262	6.1000e-004	0.0210	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.4663	0.4663	4.0000e-005	1.0000e-005	0.4697
Energy	1.4000e-004	1.2000e-003	5.1000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	12.3784	12.3784	4.7000e-004	1.2000e-004	12.4250
Mobile	5.7300e-003	0.0219	0.0803	3.2000e-004	0.0311	2.2000e-004	0.0313	8.3300e-003	2.1000e-004	8.5400e-003	0.0000	29.8647	29.8647	1.1800e-003	0.0000	29.8942
Waste						0.0000	0.0000		0.0000	0.0000	3.3940	0.0000	3.3940	0.2006	0.0000	8.4085
Water						0.0000	0.0000		0.0000	0.0000	0.1419	24.6674	24.8093	0.0156	5.5000e-004	25.3623
Total	0.1320	0.0237	0.1018	3.3000e-004	0.0311	4.7000e-004	0.0316	8.3300e-003	4.6000e-004	8.7900e-003	3.5359	67.3768	70.9128	0.2178	6.8000e-004	76.5598

	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	4.80	5.32	11.37	10.81	0.00	80.66	5.84	0.00	80.99	18.23	50.49	8.13	11.89	48.04	8.11	16.04

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	10/1/2020	4/2/2021	5	132	
2	Building Construction	Building Construction	4/3/2021	10/13/2023	5	660	
3	Architectural Coating	Architectural Coating	7/13/2023	10/13/2023	5	67	

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Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 66

Acres of Paving: 0.13

Residential Indoor: 63,421; Residential Outdoor: 21,140; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 336 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	6	15.00	0.00	4,326.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	97.00	38.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	19.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Grading - 2020

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					0.2357	0.0000	0.2357	0.1133	0.0000	0.1133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0802	0.8707	0.5298	9.8000e-004		0.0420	0.0420		0.0387	0.0387	0.0000	85.9939	85.9939	0.0278	0.0000	86.6892
Total	0.0802	0.8707	0.5298	9.8000e-004	0.2357	0.0420	0.2777	0.1133	0.0387	0.1520	0.0000	85.9939	85.9939	0.0278	0.0000	86.6892

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3.2 Grading - 2020

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	8.2500e-003	0.3069	0.0769	8.2000e-004	0.0325	9.7000e-004	0.0335	8.5200e-003	9.3000e-004	9.4500e-003	0.0000	83.1646	83.1646	8.7700e-003	0.0000	83.3837
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	1.9300e-003	1.3500e-003	0.0153	5.0000e-005	5.4300e-003	4.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	4.7033	4.7033	1.1000e-004	0.0000	4.7060
Total	0.0102	0.3083	0.0922	8.7000e-004	0.0380	1.0100e-003	0.0390	9.9600e-003	9.6000e-004	0.0109	0.0000	87.8679	87.8679	8.8800e-003	0.0000	88.0897

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0873	0.0000	0.0873	0.0420	0.0000	0.0420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0802	0.8707	0.5298	9.8000e-004		0.0420	0.0420		0.0387	0.0387	0.0000	85.9938	85.9938	0.0278	0.0000	86.6891
Total	0.0802	0.8707	0.5298	9.8000e-004	0.0873	0.0420	0.1293	0.0420	0.0387	0.0806	0.0000	85.9938	85.9938	0.0278	0.0000	86.6891

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3.2 Grading - 2020

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	8.2500e-003	0.3069	0.0769	8.2000e-004	0.0253	9.7000e-004	0.0262	6.7300e-003	9.3000e-004	7.6600e-003	0.0000	83.1646	83.1646	8.7700e-003	0.0000	83.3837
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	1.9300e-003	1.3500e-003	0.0153	5.0000e-005	4.2100e-003	4.0000e-005	4.2500e-003	1.1400e-003	3.0000e-005	1.1800e-003	0.0000	4.7033	4.7033	1.1000e-004	0.0000	4.7060
Total	0.0102	0.3083	0.0922	8.7000e-004	0.0295	1.0100e-003	0.0305	7.8700e-003	9.6000e-004	8.8400e-003	0.0000	87.8679	87.8679	8.8800e-003	0.0000	88.0897

3.2 Grading - 2021

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					0.2357	0.0000	0.2357	0.1133	0.0000	0.1133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0756	0.8163	0.5233	9.8000e-004		0.0383	0.0383		0.0352	0.0352	0.0000	85.9772	85.9772	0.0278	0.0000	86.6724
Total	0.0756	0.8163	0.5233	9.8000e-004	0.2357	0.0383	0.2740	0.1133	0.0352	0.1485	0.0000	85.9772	85.9772	0.0278	0.0000	86.6724

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3.2 Grading - 2021

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	7.8700e-003	0.2835	0.0772	8.1000e-004	0.0325	8.7000e-004	0.0334	8.5200e-003	8.3000e-004	9.3500e-003	0.0000	82.1448	82.1448	8.6500e-003	0.0000	82.3612
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	1.8100e-003	1.2200e-003	0.0142	5.0000e-005	5.4300e-003	4.0000e-005	5.4700e-003	1.4400e-003	3.0000e-005	1.4800e-003	0.0000	4.5401	4.5401	1.0000e-004	0.0000	4.5425
Total	9.6800e-003	0.2847	0.0914	8.6000e-004	0.0380	9.1000e-004	0.0389	9.9600e-003	8.6000e-004	0.0108	0.0000	86.6849	86.6849	8.7500e-003	0.0000	86.9037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0873	0.0000	0.0873	0.0420	0.0000	0.0420	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0756	0.8163	0.5233	9.8000e-004		0.0383	0.0383		0.0352	0.0352	0.0000	85.9771	85.9771	0.0278	0.0000	86.6723
Total	0.0756	0.8163	0.5233	9.8000e-004	0.0873	0.0383	0.1256	0.0420	0.0352	0.0772	0.0000	85.9771	85.9771	0.0278	0.0000	86.6723

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3.2 Grading - 2021

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	7.8700e-003	0.2835	0.0772	8.1000e-004	0.0253	8.7000e-004	0.0261	6.7300e-003	8.3000e-004	7.5700e-003	0.0000	82.1448	82.1448	8.6500e-003	0.0000	82.3612
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	1.8100e-003	1.2200e-003	0.0142	5.0000e-005	4.2100e-003	4.0000e-005	4.2400e-003	1.1400e-003	3.0000e-005	1.1800e-003	0.0000	4.5401	4.5401	1.0000e-004	0.0000	4.5425
Total	9.6800e-003	0.2847	0.0914	8.6000e-004	0.0295	9.1000e-004	0.0304	7.8700e-003	8.6000e-004	8.7500e-003	0.0000	86.6849	86.6849	8.7500e-003	0.0000	86.9037

3.3 Building Construction - 2021

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	0.1853	1.6996	1.6161	2.6200e-003		0.0935	0.0935		0.0879	0.0879	0.0000	225.8463	225.8463	0.0545	0.0000	227.2085
Total	0.1853	1.6996	1.6161	2.6200e-003		0.0935	0.0935		0.0879	0.0879	0.0000	225.8463	225.8463	0.0545	0.0000	227.2085

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3.3 Building Construction - 2021

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	0.0101	0.3530	0.0990	9.0000e-004	0.0233	7.3000e-004	0.0241	6.7300e-003	7.0000e-004	7.4300e-003	0.0000	89.4122	89.4122	7.2400e-003	0.0000	89.5931
Worker	0.0347	0.0233	0.2717	9.6000e-004	0.1038	6.8000e-004	0.1045	0.0276	6.3000e-004	0.0282	0.0000	86.7432	86.7432	1.8600e-003	0.0000	86.7896
Total	0.0448	0.3763	0.3706	1.8600e-003	0.1271	1.4100e-003	0.1286	0.0343	1.3300e-003	0.0356	0.0000	176.1554	176.1554	9.1000e-003	0.0000	176.3828

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	0.1853	1.6996	1.6161	2.6200e-003		0.0935	0.0935		0.0879	0.0879	0.0000	225.8461	225.8461	0.0545	0.0000	227.2082
Total	0.1853	1.6996	1.6161	2.6200e-003		0.0935	0.0935		0.0879	0.0879	0.0000	225.8461	225.8461	0.0545	0.0000	227.2082

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3.3 Building Construction - 2021

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	0.0101	0.3530	0.0990	9.0000e-004	0.0190	7.3000e-004	0.0198	5.6700e-003	7.0000e-004	6.3700e-003	0.0000	89.4122	89.4122	7.2400e-003	0.0000	89.5931
Worker	0.0347	0.0233	0.2717	9.6000e-004	0.0804	6.8000e-004	0.0811	0.0218	6.3000e-004	0.0225	0.0000	86.7432	86.7432	1.8600e-003	0.0000	86.7896
Total	0.0448	0.3763	0.3706	1.8600e-003	0.0994	1.4100e-003	0.1009	0.0275	1.3300e-003	0.0288	0.0000	176.1554	176.1554	9.1000e-003	0.0000	176.3828

3.3 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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3.3 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0127	0.4448	0.1273	1.1900e-003	0.0311	8.5000e-004	0.0320	8.9700e-003	8.1000e-004	9.7800e-003	0.0000	118.0408	118.0408	9.3400e-003	0.0000	118.2742
Worker	0.0437	0.0281	0.3377	1.2300e-003	0.1384	8.9000e-004	0.1393	0.0368	8.2000e-004	0.0376	0.0000	111.3757	111.3757	2.2500e-003	0.0000	111.4319
Total	0.0564	0.4729	0.4650	2.4200e-003	0.1695	1.7400e-003	0.1713	0.0457	1.6300e-003	0.0474	0.0000	229.4165	229.4165	0.0116	0.0000	229.7062

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

3.3 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0127	0.4448	0.1273	1.1900e-003	0.0254	8.5000e-004	0.0262	7.5600e-003	8.1000e-004	8.3700e-003	0.0000	118.0408	118.0408	9.3400e-003	0.0000	118.2742
Worker	0.0437	0.0281	0.3377	1.2300e-003	0.1072	8.9000e-004	0.1081	0.0291	8.2000e-004	0.0299	0.0000	111.3757	111.3757	2.2500e-003	0.0000	111.4319
Total	0.0564	0.4729	0.4650	2.4200e-003	0.1326	1.7400e-003	0.1343	0.0367	1.6300e-003	0.0383	0.0000	229.4165	229.4165	0.0116	0.0000	229.7062

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5999	237.5999	0.0565	0.0000	239.0129
Total	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5999	237.5999	0.0565	0.0000	239.0129

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6000e-003	0.2633	0.0931	9.1000e-004	0.0245	3.2000e-004	0.0248	7.0700e-003	3.1000e-004	7.3800e-003	0.0000	90.2588	90.2588	6.8300e-003	0.0000	90.4296
Worker	0.0327	0.0201	0.2480	9.3000e-004	0.1092	6.9000e-004	0.1098	0.0290	6.4000e-004	0.0296	0.0000	84.4426	84.4426	1.6100e-003	0.0000	84.4827
Total	0.0403	0.2835	0.3411	1.8400e-003	0.1337	1.0100e-003	0.1347	0.0361	9.5000e-004	0.0370	0.0000	174.7014	174.7014	8.4400e-003	0.0000	174.9123

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	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5996	237.5996	0.0565	0.0000	239.0126
Total	0.1612	1.4745	1.6650	2.7600e-003		0.0717	0.0717		0.0675	0.0675	0.0000	237.5996	237.5996	0.0565	0.0000	239.0126

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6000e-003	0.2633	0.0931	9.1000e-004	0.0200	3.2000e-004	0.0203	5.9600e-003	3.1000e-004	6.2700e-003	0.0000	90.2588	90.2588	6.8300e-003	0.0000	90.4296
Worker	0.0327	0.0201	0.2480	9.3000e-004	0.0845	6.9000e-004	0.0852	0.0230	6.4000e-004	0.0236	0.0000	84.4426	84.4426	1.6100e-003	0.0000	84.4827
Total	0.0403	0.2835	0.3411	1.8400e-003	0.1045	1.0100e-003	0.1056	0.0289	9.5000e-004	0.0299	0.0000	174.7014	174.7014	8.4400e-003	0.0000	174.9123

3.4 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4200e-003	0.0437	0.0607	1.0000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003	0.0000	8.5534	8.5534	5.1000e-004	0.0000	8.5662
Total	0.1052	0.0437	0.0607	1.0000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003	0.0000	8.5534	8.5534	5.1000e-004	0.0000	8.5662

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

3.4 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0900e-003	1.2900e-003	0.0159	6.0000e-005	6.9900e-003	4.0000e-005	7.0300e-003	1.8600e-003	4.0000e-005	1.9000e-003	0.0000	5.4059	5.4059	1.0000e-004	0.0000	5.4084
Total	2.0900e-003	1.2900e-003	0.0159	6.0000e-005	6.9900e-003	4.0000e-005	7.0300e-003	1.8600e-003	4.0000e-005	1.9000e-003	0.0000	5.4059	5.4059	1.0000e-004	0.0000	5.4084

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	0.0988					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4200e-003	0.0437	0.0607	1.0000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003	0.0000	8.5534	8.5534	5.1000e-004	0.0000	8.5662
Total	0.1052	0.0437	0.0607	1.0000e-004		2.3700e-003	2.3700e-003		2.3700e-003	2.3700e-003	0.0000	8.5534	8.5534	5.1000e-004	0.0000	8.5662

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

3.4 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0900e-003	1.2900e-003	0.0159	6.0000e-005	5.4100e-003	4.0000e-005	5.4600e-003	1.4700e-003	4.0000e-005	1.5100e-003	0.0000	5.4059	5.4059	1.0000e-004	0.0000	5.4084
Total	2.0900e-003	1.2900e-003	0.0159	6.0000e-005	5.4100e-003	4.0000e-005	5.4600e-003	1.4700e-003	4.0000e-005	1.5100e-003	0.0000	5.4059	5.4059	1.0000e-004	0.0000	5.4084

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

	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	5.7300e-003	0.0219	0.0803	3.2000e-004	0.0311	2.2000e-004	0.0313	8.3300e-003	2.1000e-004	8.5400e-003	0.0000	29.8647	29.8647	1.1800e-003	0.0000	29.8942
Unmitigated	5.7300e-003	0.0219	0.0803	3.2000e-004	0.0311	2.2000e-004	0.0313	8.3300e-003	2.1000e-004	8.5400e-003	0.0000	29.8647	29.8647	1.1800e-003	0.0000	29.8942

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Enclosed Parking Structure	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Single Family Housing	24.00	24.00	24.00	82,012	82,012
Total	24.00	24.00	24.00	82,012	82,012

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	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

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Enclosed Parking Structure	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Recreational Swimming Pool	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904
Single Family Housing	0.563406	0.043070	0.209298	0.109958	0.015015	0.005784	0.026182	0.017546	0.001775	0.001524	0.004941	0.000598	0.000904

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	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	10.9885	10.9885	4.4000e-004	9.0000e-005	11.0268
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	15.6086	15.6086	6.3000e-004	1.3000e-004	15.6631
NaturalGas Mitigated	1.4000e-004	1.2000e-003	5.1000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3899	1.3899	3.0000e-005	3.0000e-005	1.3982
NaturalGas Unmitigated	2.8000e-004	2.3800e-003	1.0100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7541	2.7541	5.0000e-005	5.0000e-005	2.7705

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	51609.8	2.8000e-004	2.3800e-003	1.0100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7541	2.7541	5.0000e-005	5.0000e-005	2.7705
Total		2.8000e-004	2.3800e-003	1.0100e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	2.7541	2.7541	5.0000e-005	5.0000e-005	2.7705

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	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	26045.8	1.4000e-004	1.2000e-003	5.1000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3899	1.3899	3.0000e-005	3.0000e-005	1.3982
Total		1.4000e-004	1.2000e-003	5.1000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3899	1.3899	3.0000e-005	3.0000e-005	1.3982

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	31723.6	10.3676	4.2000e-004	9.0000e-005	10.4037
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	16037.1	5.2411	2.1000e-004	4.0000e-005	5.2593
Total		15.6086	6.3000e-004	1.3000e-004	15.6631

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	17906.2	5.8519	2.4000e-004	5.0000e-005	5.8723
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	15717.4	5.1366	2.1000e-004	4.0000e-005	5.1545
Total		10.9885	4.5000e-004	9.0000e-005	11.0268

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

	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	0.1262	6.1000e-004	0.0210	0.0000		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.4663	0.4663	4.0000e-005	1.0000e-005	0.4697
Unmitigated	0.1327	7.6000e-004	0.0336	3.0000e-005		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.2124	0.4423	0.6548	6.7000e-004	1.0000e-005	0.6757

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	9.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.5500e-003	5.2000e-004	0.0127	3.0000e-005		1.9100e-003	1.9100e-003		1.9100e-003	1.9100e-003	0.2124	0.4082	0.6207	6.3000e-004	1.0000e-005	0.6408
Landscaping	6.4000e-004	2.4000e-004	0.0208	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0341	0.0341	3.0000e-005	0.0000	0.0349
Total	0.1327	7.6000e-004	0.0335	3.0000e-005		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.2124	0.4423	0.6548	6.6000e-004	1.0000e-005	0.6757

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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	9.8800e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1156					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.0000e-005	3.7000e-004	1.6000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4323	0.4323	1.0000e-005	1.0000e-005	0.4348
Landscaping	6.4000e-004	2.4000e-004	0.0208	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	0.0341	0.0341	3.0000e-005	0.0000	0.0349
Total	0.1262	6.1000e-004	0.0210	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.4663	0.4663	4.0000e-005	1.0000e-005	0.4697

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.8093	0.0156	5.5000e-004	25.3623
Unmitigated	24.8093	0.0156	5.5000e-004	25.3623

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.99315	21.7602	8.8000e-004	1.8000e-004	21.8361
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.317007 / 0.194295	2.1550	0.0104	2.6000e-004	2.4931
Single Family Housing	0.130308 / 0.0821507	0.8941	4.2800e-003	1.1000e-004	1.0331
Total		24.8094	0.0156	5.5000e-004	25.3623

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 5.99315	21.7602	8.8000e-004	1.8000e-004	21.8361
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.317007 / 0.194295	2.1550	0.0104	2.6000e-004	2.4931
Single Family Housing	0.130308 / 0.0821507	0.8941	4.2800e-003	1.1000e-004	1.0331
Total		24.8094	0.0156	5.5000e-004	25.3623

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.3940	0.2006	0.0000	8.4085
Unmitigated	6.7880	0.4012	0.0000	16.8170

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.43	0.0873	5.1600e-003	0.0000	0.2163
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	30.55	6.2014	0.3665	0.0000	15.3636
Single Family Housing	2.46	0.4994	0.0295	0.0000	1.2371
Total		6.7880	0.4012	0.0000	16.8170

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.215	0.0436	2.5800e-003	0.0000	0.1081
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	15.275	3.1007	0.1833	0.0000	7.6818
Single Family Housing	1.23	0.2497	0.0148	0.0000	0.6186
Total		3.3940	0.2006	0.0000	8.4085

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

1 O'Hill Ridge - Garg Residence Project - Orange County, Annual

Equipment Type	Number
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11.0 Vegetation

**1 O'Hill Ridge Project
Energy Calculations**

Land Use	Natural Gas Use		Electricity Use	
	(kBTU/yr)	(Therms)	(kWh/yr)	(MWh/yr)
City Park	0	0	0	0
Enclosed Parking Structure	0	0	17,906	18
Recreational Swimming Pool	0	0	0	0
Single Family Residence	26,046	260	15,717	16
Totals	26,046	260	33,624	34

1 kBTU = 0.01 therms

Energy Type	Project Annual Energy Consumption	Orange County Annual Energy Consumption	Percentage Increase Countywide
Electricity	34	20,196,975	0.0002%
Natural Gas	260	575,133,597	0.0000%

Source: Refer to CalEEMod outputs for assumptions used in this analysis.

1 O'Hill Ridge Project Energy Calculations

Vehicle Type	Percent of Vehicle Trips ¹	Daily Trips ²	Annual Vehicle Miles Traveled ³	Average Fuel Economy (miles per gallon) ⁴	Total Annual Fuel Consumption (gallons) ⁵
Passenger Cars	1.00	24	82012.00	22	3,728
Light/Medium Trucks	0.00	0	0.00	17.3	0
Heavy Trucks/Other	0.00	0	0.00	6.4	0
TOTAL ⁶	1.00	--	82,012	--	3,728

Notes:

1. Percent of Vehicle Trip distribution based on trip characteristics within the CalEEMod model.
2. Daily Trips taken from ITE manual.
3. Annual Vehicle Miles Traveled (VMT) calculated by multiplying average daily miles (Table 4.3 in CalEEMod) by daily trips by 365 days
4. Average fuel economy derived from the Department of Transportation.
5. Total Daily Fuel Consumption calculated by dividing the daily VMT by the average fuel economy (i.e., VMT/Average Fuel Economy).
6. Values may be slightly off due to rounding.

Source: Refer to CalEEMod outputs for assumptions used in this analysis.

**1 O'Hill Ridge Project
Energy Calculations**

WORKER TRIPS						
Phase	Phase Length (# days)	# Worker Trips	Worker Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption
Grading	132	15	14.7	29106		1168.78
Building Construction	660	97	14.7	941094	24.90284233	37790.63
Architectural Coating	67	19	14.7	18713		751.44
						39710.85
VENDOR TRIPS						
Phase	Phase Length (# days)	# Vendor Trips	Vendor Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption
Grading	132	0	6.9	0		0.00
Building Construction	660	38	6.9	262	8.343886151	31.42
Architectural Coating	67	0	6.9	0		0.00
						31.42
HAULING TRIPS						
Phase	Phase Length (# days)	# Hauling Trips	Hauling Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)¹	Total Fuel Consumption
Grading	132	4326	20	86520		10369.27
Building Construction	660	0	20	0		0.00
Architectural Coating	67	0	20	0	8.343886151	0.00
						0.00
TOTAL OFF-SITE MOBILE GALLONS CONSUMED DURING CONSTRUCTION						39,742.28

**1 O'Hill Ridge Project
Energy Calculations**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Fuel Consumption Rate (gallons per hour)	Duration (total hours/day)	# days	Total Fuel Consumption (gallons)
Grading	Excavators	1	8.00	158	0.38	2.4016	8	132	2536.09
Grading	Graders	1	8.00	187	0.41	3.0668	8	132	3238.54
Grading	Rubber Tired Dozers	1	8.00	247	0.40	3.952	8	132	4173.31
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37	1.4356	24	132	4547.98
Building Construction	Cranes	1	7.00	231	0.29	2.6796	7	660	12379.75
Building Construction	Forklifts	3	8.00	89	0.20	0.712	24	660	11278.08
Building Construction	Generator Sets	1	8.00	84	0.74	2.4864	8	660	13128.19
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37	1.4356	21	660	19897.42
Building Construction	Welders	1	8.00	46	0.45	0.828	8	660	4371.84
Architectural Coating	Air Compressors	1	6.00	78	0.48	1.4976	6	67	602.04
Total:									76,153
Notes:									Off-Site Mobile Construction Total: 39,742.28
Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor									TOTAL: 115,896
Where:									
Fuel Consumption Factor for a diesel engine is 0.04 gallons per horsepower per hour (gal/hp/hr) and a gasoline engine is 0.06 gal/hp/hr.									
Source: Refer to CalEEMod outputs for assumptions used in this analysis.									