

Oak Grove Residential - Orange County, Annual

**Oak Grove Residential
Orange County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	13.00	Dwelling Unit	5.10	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - The project site is approximately 5.1 acres.

Construction Phase -

Grading - Balanced cut/fill on-site. No import or export soils is required.

Woodstoves - Assume no woodburning allowed.

Sequestration - Six California coast live oak trees on-site.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Area Mitigation -

Energy Mitigation - Rooftop solar electricity generation homes built under 2019 building energy efficiency standards will use about 53 percent less energy than those under the 2016 standards.

Water Mitigation - Project will include low-flow water appliances and water efficient irrigation system.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	13.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	5.10
tblSequestration	CO2perTree	0.04	0.04
tblSequestration	NumberOfNewTrees	0.00	6.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	0.8411	0.8411
2	9-1-2021	11-30-2021	0.6325	0.6325
3	12-1-2021	2-28-2022	0.5830	0.5830
4	3-1-2022	5-31-2022	0.5712	0.5712
5	6-1-2022	8-31-2022	0.2081	0.2081
		Highest	0.8411	0.8411

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	0.0963	4.2400e-003	0.1354	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646
Energy	1.8100e-003	0.0155	6.5800e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	51.1151	51.1151	1.7100e-003	6.1000e-004	51.3403
Mobile	0.0337	0.1476	0.4691	1.7700e-003	0.1592	1.3100e-003	0.1605	0.0426	1.2200e-003	0.0438	0.0000	163.1180	163.1180	6.7700e-003	0.0000	163.2874
Waste						0.0000	0.0000		0.0000	0.0000	3.0794	0.0000	3.0794	0.1820	0.0000	7.6290
Water						0.0000	0.0000		0.0000	0.0000	0.2687	5.4042	5.6730	0.0278	7.0000e-004	6.5765
Total	0.1318	0.1673	0.6110	1.8900e-003	0.1592	3.5200e-003	0.1627	0.0426	3.4300e-003	0.0461	3.3481	222.9781	226.3262	0.2186	1.3700e-003	232.1977

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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	0.0963	4.2400e-003	0.1354	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646
Energy	1.0600e-003	9.0200e-003	3.8400e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	42.4020	42.4020	1.5200e-003	4.6000e-004	42.5783
Mobile	0.0337	0.1476	0.4691	1.7700e-003	0.1592	1.3100e-003	0.1605	0.0426	1.2200e-003	0.0438	0.0000	163.1180	163.1180	6.7700e-003	0.0000	163.2874
Waste						0.0000	0.0000		0.0000	0.0000	3.0794	0.0000	3.0794	0.1820	0.0000	7.6290
Water						0.0000	0.0000		0.0000	0.0000	0.2150	4.5861	4.8011	0.0223	5.6000e-004	5.5249
Total	0.1310	0.1609	0.6083	1.8500e-003	0.1592	3.0000e-003	0.1622	0.0426	2.9100e-003	0.0455	3.2943	213.4469	216.7412	0.2128	1.0800e-003	222.3842

	ROG	NOx	CO	SO2	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	0.57	3.85	0.45	2.12	0.00	14.77	0.32	0.00	15.16	1.13	1.61	4.27	4.24	2.63	21.17	4.23

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	4.2480
Total	4.2480

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	6/14/2021	5	10	
2	Grading	Grading	6/15/2021	7/12/2021	5	20	
3	Building Construction	Building Construction	7/13/2021	5/30/2022	5	230	
4	Paving	Paving	5/31/2022	6/27/2022	5	20	
5	Architectural Coating	Architectural Coating	6/28/2022	7/25/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

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Residential Indoor: 47,385; Residential Outdoor: 15,795; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 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					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0903	0.0102	0.1006	0.0497	9.4000e-003	0.0591	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530

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3.2 Site Preparation - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.2000e-004	2.5900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8255	0.8255	2.0000e-005	0.0000	0.8259
Total	3.3000e-004	2.2000e-004	2.5900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8255	0.8255	2.0000e-005	0.0000	0.8259

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					0.0352	0.0000	0.0352	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	0.0194	0.2025	0.1058	1.9000e-004	0.0352	0.0102	0.0455	0.0194	9.4000e-003	0.0288	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530

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3.2 Site Preparation - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.2000e-004	2.5900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8255	0.8255	2.0000e-005	0.0000	0.8259
Total	3.3000e-004	2.2000e-004	2.5900e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8255	0.8255	2.0000e-005	0.0000	0.8259

3.3 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					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0655	0.0116	0.0771	0.0337	0.0107	0.0443	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644

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3.3 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.7000e-004	4.3100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3758	1.3758	3.0000e-005	0.0000	1.3765
Total	5.5000e-004	3.7000e-004	4.3100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3758	1.3758	3.0000e-005	0.0000	1.3765

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					0.0256	0.0000	0.0256	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	0.0229	0.2474	0.1586	3.0000e-004	0.0256	0.0116	0.0372	0.0131	0.0107	0.0238	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643

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3.3 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5000e-004	3.7000e-004	4.3100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3758	1.3758	3.0000e-005	0.0000	1.3765
Total	5.5000e-004	3.7000e-004	4.3100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3758	1.3758	3.0000e-005	0.0000	1.3765

3.4 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	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6151	143.6151	0.0347	0.0000	144.4813
Total	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6151	143.6151	0.0347	0.0000	144.4813

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3.4 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	1.7000e-004	5.9100e-003	1.6600e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	1.4962	1.4962	1.2000e-004	0.0000	1.4993
Worker	1.1400e-003	7.6000e-004	8.9100e-003	3.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8433	2.8433	6.0000e-005	0.0000	2.8448
Total	1.3100e-003	6.6700e-003	0.0106	5.0000e-005	3.7900e-003	3.0000e-005	3.8300e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	4.3395	4.3395	1.8000e-004	0.0000	4.3441

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	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6149	143.6149	0.0347	0.0000	144.4811
Total	0.1179	1.0808	1.0277	1.6700e-003		0.0594	0.0594		0.0559	0.0559	0.0000	143.6149	143.6149	0.0347	0.0000	144.4811

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3.4 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	1.7000e-004	5.9100e-003	1.6600e-003	2.0000e-005	3.9000e-004	1.0000e-005	4.0000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	1.4962	1.4962	1.2000e-004	0.0000	1.4993
Worker	1.1400e-003	7.6000e-004	8.9100e-003	3.0000e-005	3.4000e-003	2.0000e-005	3.4300e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.8433	2.8433	6.0000e-005	0.0000	2.8448
Total	1.3100e-003	6.6700e-003	0.0106	5.0000e-005	3.7900e-003	3.0000e-005	3.8300e-003	1.0100e-003	3.0000e-005	1.0400e-003	0.0000	4.3395	4.3395	1.8000e-004	0.0000	4.3441

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0904	0.8276	0.8673	1.4300e-003		0.0429	0.0429		0.0403	0.0403	0.0000	122.8144	122.8144	0.0294	0.0000	123.5500
Total	0.0904	0.8276	0.8673	1.4300e-003		0.0429	0.0429		0.0403	0.0403	0.0000	122.8144	122.8144	0.0294	0.0000	123.5500

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.7700e-003	1.3700e-003	1.0000e-005	3.3000e-004	1.0000e-005	3.4000e-004	1.0000e-004	1.0000e-005	1.0000e-004	0.0000	1.2664	1.2664	1.0000e-004	0.0000	1.2689
Worker	9.2000e-004	5.9000e-004	7.1000e-003	3.0000e-005	2.9100e-003	2.0000e-005	2.9300e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.3406	2.3406	5.0000e-005	0.0000	2.3418
Total	1.0600e-003	5.3600e-003	8.4700e-003	4.0000e-005	3.2400e-003	3.0000e-005	3.2700e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	3.6070	3.6070	1.5000e-004	0.0000	3.6107

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	0.0904	0.8276	0.8673	1.4300e-003		0.0429	0.0429		0.0403	0.0403	0.0000	122.8142	122.8142	0.0294	0.0000	123.5498
Total	0.0904	0.8276	0.8673	1.4300e-003		0.0429	0.0429		0.0403	0.0403	0.0000	122.8142	122.8142	0.0294	0.0000	123.5498

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.7700e-003	1.3700e-003	1.0000e-005	3.3000e-004	1.0000e-005	3.4000e-004	1.0000e-004	1.0000e-005	1.0000e-004	0.0000	1.2664	1.2664	1.0000e-004	0.0000	1.2689
Worker	9.2000e-004	5.9000e-004	7.1000e-003	3.0000e-005	2.9100e-003	2.0000e-005	2.9300e-003	7.7000e-004	2.0000e-005	7.9000e-004	0.0000	2.3406	2.3406	5.0000e-005	0.0000	2.3418
Total	1.0600e-003	5.3600e-003	8.4700e-003	4.0000e-005	3.2400e-003	3.0000e-005	3.2700e-003	8.7000e-004	3.0000e-005	8.9000e-004	0.0000	3.6070	3.6070	1.5000e-004	0.0000	3.6107

3.5 Paving - 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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895

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3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.3000e-004	4.0200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3249	1.3249	3.0000e-005	0.0000	1.3255
Total	5.2000e-004	3.3000e-004	4.0200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3249	1.3249	3.0000e-005	0.0000	1.3255

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	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895

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3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.3000e-004	4.0200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3249	1.3249	3.0000e-005	0.0000	1.3255
Total	5.2000e-004	3.3000e-004	4.0200e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3249	1.3249	3.0000e-005	0.0000	1.3255

3.6 Architectural Coating - 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					
Archit. Coating	0.0732					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.0753	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0884
Total	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0884

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	0.0732					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.0753	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0884
Total	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0883	0.0883	0.0000	0.0000	0.0884

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0337	0.1476	0.4691	1.7700e-003	0.1592	1.3100e-003	0.1605	0.0426	1.2200e-003	0.0438	0.0000	163.1180	163.1180	6.7700e-003	0.0000	163.2874
Unmitigated	0.0337	0.1476	0.4691	1.7700e-003	0.1592	1.3100e-003	0.1605	0.0426	1.2200e-003	0.0438	0.0000	163.1180	163.1180	6.7700e-003	0.0000	163.2874

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	123.76	128.83	112.06	419,670	419,670
Total	123.76	128.83	112.06	419,670	419,670

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
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
Single Family Housing	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	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	31.9601	31.9601	1.3200e-003	2.7000e-004	32.0744
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	33.2134	33.2134	1.3700e-003	2.8000e-004	33.3322
NaturalGas Mitigated	1.0600e-003	9.0200e-003	3.8400e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4419	10.4419	2.0000e-004	1.9000e-004	10.5039
NaturalGas Unmitigated	1.8100e-003	0.0155	6.5800e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9016	17.9016	3.4000e-004	3.3000e-004	18.0080

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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					
Single Family Housing	335464	1.8100e-003	0.0155	6.5800e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9016	17.9016	3.4000e-004	3.3000e-004	18.0080
Total		1.8100e-003	0.0155	6.5800e-003	1.0000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	17.9016	17.9016	3.4000e-004	3.3000e-004	18.0080

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					
Single Family Housing	195673	1.0600e-003	9.0200e-003	3.8400e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4419	10.4419	2.0000e-004	1.9000e-004	10.5039
Total		1.0600e-003	9.0200e-003	3.8400e-003	6.0000e-005		7.3000e-004	7.3000e-004		7.3000e-004	7.3000e-004	0.0000	10.4419	10.4419	2.0000e-004	1.9000e-004	10.5039

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

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	104241	33.2134	1.3700e-003	2.8000e-004	33.3322
Total		33.2134	1.3700e-003	2.8000e-004	33.3322

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	100307	31.9601	1.3200e-003	2.7000e-004	32.0744
Total		31.9601	1.3200e-003	2.7000e-004	32.0744

6.0 Area Detail**6.1 Mitigation Measures Area**

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Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	0.0963	4.2400e-003	0.1354	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646
Unmitigated	0.0963	4.2400e-003	0.1354	2.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646

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	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7000e-003	1.1500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1218	3.1218	6.0000e-005	6.0000e-005	3.1403
Landscaping	4.0500e-003	1.5500e-003	0.1342	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2190	0.2190	2.1000e-004	0.0000	0.2243
Total	0.0963	4.2500e-003	0.1354	3.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646

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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	7.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0846					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2000e-004	2.7000e-003	1.1500e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1218	3.1218	6.0000e-005	6.0000e-005	3.1403
Landscaping	4.0500e-003	1.5500e-003	0.1342	1.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	0.2190	0.2190	2.1000e-004	0.0000	0.2243
Total	0.0963	4.2500e-003	0.1354	3.0000e-005		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	3.3408	3.3408	2.7000e-004	6.0000e-005	3.3646

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.8011	0.0223	5.6000e-004	5.5249
Unmitigated	5.6730	0.0278	7.0000e-004	6.5765

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.847002 / 0.53398	5.6730	0.0278	7.0000e-004	6.5765
Total		5.6730	0.0278	7.0000e-004	6.5765

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.677602 / 0.501407	4.8011	0.0223	5.6000e-004	5.5249
Total		4.8011	0.0223	5.6000e-004	5.5249

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.0794	0.1820	0.0000	7.6290
Unmitigated	3.0794	0.1820	0.0000	7.6290

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	15.17	3.0794	0.1820	0.0000	7.6290
Total		3.0794	0.1820	0.0000	7.6290

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	15.17	3.0794	0.1820	0.0000	7.6290
Total		3.0794	0.1820	0.0000	7.6290

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Oak Grove Residential - Orange County, Annual

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

Oak Grove Residential - Orange County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	4.2480	0.0000	0.0000	4.2480

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Mixed Hardwood	6	4.2480	0.0000	0.0000	4.2480
Total		4.2480	0.0000	0.0000	4.2480

Oak Grove Residential - Orange County, Summer

Oak Grove Residential
Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	13.00	Dwelling Unit	5.10	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Oak Grove Residential - Orange County, Summer

Project Characteristics -

Land Use - The project site is approximately 5.1 acres.

Construction Phase -

Grading - Balanced cut/fill on-site. No import or export soils is required.

Woodstoves - Assume no woodburning allowed.

Sequestration - Six California coast live oak trees on-site.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Area Mitigation -

Energy Mitigation - Rooftop solar electricity generation homes built under 2019 building energy efficiency standards will use about 53 percent less energy than those under the 2016 standards.

Water Mitigation - Project will include low-flow water appliances and water efficient irrigation system.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	13.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	5.10
tblSequestration	CO2perTree	0.04	0.04
tblSequestration	NumberOfNewTrees	0.00	6.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Oak Grove Residential - 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	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Energy	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695
Mobile	0.2033	0.8116	2.7929	0.0106	0.9338	7.5300e-003	0.9413	0.2497	7.0100e-003	0.2567		1,071.4205	1,071.4205	0.0434		1,072.5042
Total	0.7743	1.1244	3.9944	0.0125	0.9338	0.0378	0.9716	0.2497	0.0372	0.2869	0.0000	1,456.7728	1,456.7728	0.0526	7.0300e-003	1,460.1815

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	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Energy	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
Mobile	0.2033	0.8116	2.7929	0.0106	0.9338	7.5300e-003	0.9413	0.2497	7.0100e-003	0.2567		1,071.4205	1,071.4205	0.0434		1,072.5042
Total	0.7702	1.0891	3.9794	0.0123	0.9338	0.0349	0.9687	0.2497	0.0344	0.2841	0.0000	1,411.7154	1,411.7154	0.0517	6.2100e-003	1,414.8563

Oak Grove Residential - 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	0.53	3.14	0.38	1.76	0.00	7.58	0.29	0.00	7.68	1.00	0.00	3.09	3.09	1.64	11.66	3.10

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	6/14/2021	5	10	
2	Grading	Grading	6/15/2021	7/12/2021	5	20	
3	Building Construction	Building Construction	7/13/2021	5/30/2022	5	230	
4	Paving	Paving	5/31/2022	6/27/2022	5	20	
5	Architectural Coating	Architectural Coating	6/28/2022	7/25/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 47,385; Residential Outdoor: 15,795; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Oak Grove Residential - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Oak Grove Residential - Orange County, Summer

Water Exposed Area

3.2 Site Preparation - 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963

Oak Grove Residential - Orange County, Summer

3.2 Site Preparation - 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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	7.0458	2.0445	9.0903	3.8730	1.8809	5.7539	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963
Total	0.0650	0.0393	0.5467	1.9000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		189.3950	189.3950	4.0600e-003		189.4963

Oak Grove Residential - Orange County, Summer

3.3 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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			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	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		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	0.0000	0.0000	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	0.0541	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	0.0541	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

Oak Grove Residential - Orange County, Summer

3.3 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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			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	2.5554	1.1599	3.7153	1.3133	1.0671	2.3804	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	0.0000	0.0000	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	0.0541	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	0.0541	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

Oak Grove Residential - Orange County, Summer

3.4 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	2.6700e-003	0.0938	0.0254	2.5000e-004	6.3900e-003	1.9000e-004	6.5800e-003	1.8400e-003	1.9000e-004	2.0200e-003		26.8793	26.8793	2.1100e-003		26.9319
Worker	0.0181	0.0109	0.1519	5.3000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		52.6097	52.6097	1.1300e-003		52.6379
Total	0.0207	0.1047	0.1773	7.8000e-004	0.0623	5.5000e-004	0.0628	0.0167	5.2000e-004	0.0172		79.4890	79.4890	3.2400e-003		79.5698

Oak Grove Residential - Orange County, Summer

3.4 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	2.6700e-003	0.0938	0.0254	2.5000e-004	6.3900e-003	1.9000e-004	6.5800e-003	1.8400e-003	1.9000e-004	2.0200e-003		26.8793	26.8793	2.1100e-003		26.9319
Worker	0.0181	0.0109	0.1519	5.3000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		52.6097	52.6097	1.1300e-003		52.6379
Total	0.0207	0.1047	0.1773	7.8000e-004	0.0623	5.5000e-004	0.0628	0.0167	5.2000e-004	0.0172		79.4890	79.4890	3.2400e-003		79.5698

Oak Grove Residential - Orange County, Summer

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5100e-003	0.0888	0.0246	2.4000e-004	6.3900e-003	1.7000e-004	6.5600e-003	1.8400e-003	1.6000e-004	2.0000e-003		26.6153	26.6153	2.0400e-003		26.6663
Worker	0.0171	9.8900e-003	0.1417	5.1000e-004	0.0559	3.5000e-004	0.0562	0.0148	3.3000e-004	0.0152		50.6601	50.6601	1.0200e-003		50.6856
Total	0.0196	0.0986	0.1663	7.5000e-004	0.0623	5.2000e-004	0.0628	0.0167	4.9000e-004	0.0172		77.2753	77.2753	3.0600e-003		77.3519

Oak Grove Residential - Orange County, Summer

3.4 Building Construction - 2022

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.5100e-003	0.0888	0.0246	2.4000e-004	6.3900e-003	1.7000e-004	6.5600e-003	1.8400e-003	1.6000e-004	2.0000e-003		26.6153	26.6153	2.0400e-003		26.6663
Worker	0.0171	9.8900e-003	0.1417	5.1000e-004	0.0559	3.5000e-004	0.0562	0.0148	3.3000e-004	0.0152		50.6601	50.6601	1.0200e-003		50.6856
Total	0.0196	0.0986	0.1663	7.5000e-004	0.0623	5.2000e-004	0.0628	0.0167	4.9000e-004	0.0172		77.2753	77.2753	3.0600e-003		77.3519

Oak Grove Residential - Orange County, Summer

3.5 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569

Oak Grove Residential - Orange County, Summer

3.5 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
Total	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569

Oak Grove Residential - Orange County, Summer

3.6 Architectural Coating - 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					
Archit. Coating	7.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	7.5255	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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	3.4100e-003	1.9800e-003	0.0284	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.1320	10.1320	2.0000e-004		10.1371
Total	3.4100e-003	1.9800e-003	0.0284	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.1320	10.1320	2.0000e-004		10.1371

Oak Grove Residential - Orange County, Summer

3.6 Architectural Coating - 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					
Archit. Coating	7.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	7.5255	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

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	3.4100e-003	1.9800e-003	0.0284	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.1320	10.1320	2.0000e-004		10.1371
Total	3.4100e-003	1.9800e-003	0.0284	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		10.1320	10.1320	2.0000e-004		10.1371

4.0 Operational Detail - Mobile

Oak Grove Residential - 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	0.2033	0.8116	2.7929	0.0106	0.9338	7.5300e-003	0.9413	0.2497	7.0100e-003	0.2567		1,071.4205	1,071.4205	0.0434		1,072.5042
Unmitigated	0.2033	0.8116	2.7929	0.0106	0.9338	7.5300e-003	0.9413	0.2497	7.0100e-003	0.2567		1,071.4205	1,071.4205	0.0434		1,072.5042

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	123.76	128.83	112.06	419,670	419,670
Total	123.76	128.83	112.06	419,670	419,670

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
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
Single Family Housing	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

Oak Grove Residential - Orange County, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	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	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
NaturalGas Unmitigated	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695

Oak Grove Residential - Orange County, Summer

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					
Single Family Housing	919.079	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695
Total		9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695

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					
Single Family Housing	0.536091	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
Total		5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443

6.0 Area Detail

6.1 Mitigation Measures Area

Oak Grove Residential - Orange County, Summer

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Unmitigated	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

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	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0737	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003		1.9312	1.9312	1.8600e-003		1.9778
Total	0.5611	0.2280	1.1654	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

Oak Grove Residential - 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	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0737	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003		1.9312	1.9312	1.8600e-003		1.9778
Total	0.5611	0.2280	1.1654	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Oak Grove Residential - Orange County, Summer

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Oak Grove Residential - Orange County, Winter

Oak Grove Residential
Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	13.00	Dwelling Unit	5.10	23,400.00	37

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	30
Climate Zone	8			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Oak Grove Residential - Orange County, Winter

Project Characteristics -

Land Use - The project site is approximately 5.1 acres.

Construction Phase -

Grading - Balanced cut/fill on-site. No import or export soils is required.

Woodstoves - Assume no woodburning allowed.

Sequestration - Six California coast live oak trees on-site.

Construction Off-road Equipment Mitigation - Dust control measures as required by SCAQMD Rule 403.

Area Mitigation -

Energy Mitigation - Rooftop solar electricity generation homes built under 2019 building energy efficiency standards will use about 53 percent less energy than those under the 2016 standards.

Water Mitigation - Project will include low-flow water appliances and water efficient irrigation system.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	11.05	13.00
tblFireplaces	NumberNoFireplace	1.30	13.00
tblFireplaces	NumberWood	0.65	0.00
tblLandUse	LotAcreage	4.22	5.10
tblSequestration	CO2perTree	0.04	0.04
tblSequestration	NumberOfNewTrees	0.00	6.00
tblWoodstoves	NumberCatalytic	0.65	0.00
tblWoodstoves	NumberNoncatalytic	0.65	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Oak Grove Residential - Orange County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Energy	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695
Mobile	0.2000	0.8363	2.6664	0.0101	0.9338	7.5700e-003	0.9414	0.2497	7.0400e-003	0.2568		1,023.8625	1,023.8625	0.0431		1,024.9411
Total	0.7710	1.1490	3.8678	0.0121	0.9338	0.0378	0.9716	0.2497	0.0373	0.2870	0.0000	1,409.2148	1,409.2148	0.0524	7.0300e-003	1,412.6184

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	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Energy	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
Mobile	0.2000	0.8363	2.6664	0.0101	0.9338	7.5700e-003	0.9414	0.2497	7.0400e-003	0.2568		1,023.8625	1,023.8625	0.0431		1,024.9411
Total	0.7669	1.1137	3.8528	0.0118	0.9338	0.0349	0.9687	0.2497	0.0344	0.2841	0.0000	1,364.1574	1,364.1574	0.0515	6.2100e-003	1,367.2932

Oak Grove Residential - 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
Percent Reduction	0.54	3.07	0.39	1.83	0.00	7.57	0.29	0.00	7.68	1.00	0.00	3.20	3.20	1.64	11.66	3.21

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2021	6/14/2021	5	10	
2	Grading	Grading	6/15/2021	7/12/2021	5	20	
3	Building Construction	Building Construction	7/13/2021	5/30/2022	5	230	
4	Paving	Paving	5/31/2022	6/27/2022	5	20	
5	Architectural Coating	Architectural Coating	6/28/2022	7/25/2022	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 47,385; Residential Outdoor: 15,795; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Oak Grove Residential - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
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
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Oak Grove Residential - Orange County, Winter

Water Exposed Area

3.2 Site Preparation - 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					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458

Oak Grove Residential - Orange County, Winter

3.2 Site Preparation - 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					7.0458	0.0000	7.0458	3.8730	0.0000	3.8730			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	7.0458	2.0445	9.0903	3.8730	1.8809	5.7539	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

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	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458
Total	0.0736	0.0432	0.5045	1.8000e-003	0.2012	1.3000e-003	0.2025	0.0534	1.2000e-003	0.0546		179.2498	179.2498	3.8400e-003		179.3458

Oak Grove Residential - Orange County, Winter

3.3 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					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			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	6.5523	1.1599	7.7123	3.3675	1.0671	4.4346		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	0.0000	0.0000	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	0.0613	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	0.0613	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

Oak Grove Residential - Orange County, Winter

3.3 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					2.5554	0.0000	2.5554	1.3133	0.0000	1.3133			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	2.5554	1.1599	3.7153	1.3133	1.0671	2.3804	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	0.0000	0.0000	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	0.0613	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	0.0613	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

Oak Grove Residential - Orange County, Winter

3.4 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	2.8000e-003	0.0936	0.0279	2.4000e-004	6.3900e-003	2.0000e-004	6.5900e-003	1.8400e-003	1.9000e-004	2.0300e-003		26.2189	26.2189	2.2100e-003		26.2742
Worker	0.0204	0.0120	0.1401	5.0000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		49.7916	49.7916	1.0700e-003		49.8183
Total	0.0232	0.1056	0.1680	7.4000e-004	0.0623	5.6000e-004	0.0628	0.0167	5.2000e-004	0.0172		76.0105	76.0105	3.2800e-003		76.0924

Oak Grove Residential - Orange County, Winter

3.4 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	2.8000e-003	0.0936	0.0279	2.4000e-004	6.3900e-003	2.0000e-004	6.5900e-003	1.8400e-003	1.9000e-004	2.0300e-003		26.2189	26.2189	2.2100e-003		26.2742
Worker	0.0204	0.0120	0.1401	5.0000e-004	0.0559	3.6000e-004	0.0563	0.0148	3.3000e-004	0.0152		49.7916	49.7916	1.0700e-003		49.8183
Total	0.0232	0.1056	0.1680	7.4000e-004	0.0623	5.6000e-004	0.0628	0.0167	5.2000e-004	0.0172		76.0105	76.0105	3.2800e-003		76.0924

Oak Grove Residential - Orange County, Winter

3.4 Building Construction - 2022

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6300e-003	0.0885	0.0269	2.4000e-004	6.3900e-003	1.8000e-004	6.5600e-003	1.8400e-003	1.7000e-004	2.0100e-003		25.9589	25.9589	2.1400e-003		26.0124
Worker	0.0194	0.0109	0.1306	4.8000e-004	0.0559	3.5000e-004	0.0562	0.0148	3.3000e-004	0.0152		47.9489	47.9489	9.7000e-004		47.9731
Total	0.0220	0.0994	0.1575	7.2000e-004	0.0623	5.3000e-004	0.0628	0.0167	5.0000e-004	0.0172		73.9079	73.9079	3.1100e-003		73.9855

Oak Grove Residential - Orange County, Winter

3.4 Building Construction - 2022

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.6300e-003	0.0885	0.0269	2.4000e-004	6.3900e-003	1.8000e-004	6.5600e-003	1.8400e-003	1.7000e-004	2.0100e-003		25.9589	25.9589	2.1400e-003		26.0124
Worker	0.0194	0.0109	0.1306	4.8000e-004	0.0559	3.5000e-004	0.0562	0.0148	3.3000e-004	0.0152		47.9489	47.9489	9.7000e-004		47.9731
Total	0.0220	0.0994	0.1575	7.2000e-004	0.0623	5.3000e-004	0.0628	0.0167	5.0000e-004	0.0172		73.9079	73.9079	3.1100e-003		73.9855

Oak Grove Residential - Orange County, Winter

3.5 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104

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	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194

Oak Grove Residential - Orange County, Winter

3.5 Paving - 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	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104

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	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
Total	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194

Oak Grove Residential - Orange County, Winter

3.6 Architectural Coating - 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					
Archit. Coating	7.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	7.5255	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

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	3.8700e-003	2.1700e-003	0.0261	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		9.5898	9.5898	1.9000e-004		9.5946
Total	3.8700e-003	2.1700e-003	0.0261	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		9.5898	9.5898	1.9000e-004		9.5946

Oak Grove Residential - Orange County, Winter

3.6 Architectural Coating - 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					
Archit. Coating	7.3210					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	7.5255	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

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	3.8700e-003	2.1700e-003	0.0261	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		9.5898	9.5898	1.9000e-004		9.5946
Total	3.8700e-003	2.1700e-003	0.0261	1.0000e-004	0.0112	7.0000e-005	0.0113	2.9600e-003	7.0000e-005	3.0300e-003		9.5898	9.5898	1.9000e-004		9.5946

4.0 Operational Detail - Mobile

Oak Grove Residential - 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	0.2000	0.8363	2.6664	0.0101	0.9338	7.5700e-003	0.9414	0.2497	7.0400e-003	0.2568		1,023.8625	1,023.8625	0.0431		1,024.9411
Unmitigated	0.2000	0.8363	2.6664	0.0101	0.9338	7.5700e-003	0.9414	0.2497	7.0400e-003	0.2568		1,023.8625	1,023.8625	0.0431		1,024.9411

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	123.76	128.83	112.06	419,670	419,670
Total	123.76	128.83	112.06	419,670	419,670

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
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
Single Family Housing	0.558976	0.043534	0.209821	0.113949	0.016111	0.005791	0.025447	0.016654	0.001713	0.001553	0.004896	0.000590	0.000966

Oak Grove Residential - Orange County, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	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	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
NaturalGas Unmitigated	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695

Oak Grove Residential - Orange County, Winter

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					
Single Family Housing	919.079	9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695
Total		9.9100e-003	0.0847	0.0360	5.4000e-004		6.8500e-003	6.8500e-003		6.8500e-003	6.8500e-003		108.1269	108.1269	2.0700e-003	1.9800e-003	108.7695

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					
Single Family Housing	0.536091	5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443
Total		5.7800e-003	0.0494	0.0210	3.2000e-004		3.9900e-003	3.9900e-003		3.9900e-003	3.9900e-003		63.0695	63.0695	1.2100e-003	1.1600e-003	63.4443

6.0 Area Detail

6.1 Mitigation Measures Area

Oak Grove Residential - Orange County, Winter

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	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	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078
Unmitigated	0.5611	0.2280	1.1654	1.4300e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

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	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0737	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003		1.9312	1.9312	1.8600e-003		1.9778
Total	0.5611	0.2280	1.1654	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

Oak Grove Residential - 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	0.0401					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4633					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0252	0.2157	0.0918	1.3800e-003		0.0174	0.0174		0.0174	0.0174	0.0000	275.2941	275.2941	5.2800e-003	5.0500e-003	276.9301
Landscaping	0.0324	0.0124	1.0737	6.0000e-005		5.9300e-003	5.9300e-003		5.9300e-003	5.9300e-003		1.9312	1.9312	1.8600e-003		1.9778
Total	0.5611	0.2280	1.1654	1.4400e-003		0.0234	0.0234		0.0234	0.0234	0.0000	277.2253	277.2253	7.1400e-003	5.0500e-003	278.9078

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Oak Grove Residential - Orange County, Winter

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
