

APPENDIX A

Air Quality/GHG/Energy Analysis

Bewley Street Townhomes Project - Orange County, Winter

Bewley Street Townhomes Project
Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	10.00	Dwelling Unit	0.63	18,920.00	29
Parking Lot	20.00	Space	0.18	8,000.00	0
City Park	0.15	Acre	0.15	6,534.00	0
Enclosed Parking Structure	4.00	1000sqft	0.09	4,000.00	0

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)	513	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 - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Grading -

Vehicle Trips - Per traffic study.

Energy Use -

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

Area Mitigation - SCAQMD Rule 445 prohibits the installation of any open or enclosed permanently installed wood burning device.

Energy Mitigation - % Improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

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Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	64.00
tblConstructionPhase	NumDays	200.00	216.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	PhaseEndDate	1/10/2022	3/31/2022
tblConstructionPhase	PhaseEndDate	12/13/2021	3/31/2022
tblConstructionPhase	PhaseEndDate	3/8/2021	4/1/2021
tblConstructionPhase	PhaseEndDate	12/27/2021	6/2/2021
tblConstructionPhase	PhaseStartDate	12/28/2021	1/2/2022
tblConstructionPhase	PhaseStartDate	3/9/2021	6/3/2021
tblConstructionPhase	PhaseStartDate	3/3/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	12/14/2021	4/2/2021
tblGrading	MaterialImported	0.00	2,239.00
tblLandUse	LandUseSquareFeet	10,000.00	18,920.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	7.32
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	7.32
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	7.32

2.0 Emissions Summary

Bewley Street Townhomes Project - 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	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742
Energy	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135
Mobile	0.1064	0.4473	1.4149	5.5500e-003	0.5306	4.1400e-003	0.5348	0.1419	3.8500e-003	0.1458		564.3022	564.3022	0.0233		564.8842
Total	3.1697	0.7089	7.3478	0.0189	0.5306	0.7762	1.3068	0.1419	0.7759	0.9178	93.6692	802.6685	896.3377	0.3052	7.4000e-003	906.1719

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	0.4552	0.1588	0.8919	1.0000e-003		0.0166	0.0166		0.0166	0.0166	0.0000	192.0790	192.0790	5.1000e-003	3.4900e-003	193.2478
Energy	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
Mobile	0.1064	0.4473	1.4149	5.5500e-003	0.5306	4.1400e-003	0.5348	0.1419	3.8500e-003	0.1458		564.3022	564.3022	0.0233		564.8842
Total	0.5649	0.6344	2.3189	6.7300e-003	0.5306	0.0231	0.5537	0.1419	0.0228	0.1647	0.0000	792.5357	792.5357	0.0291	4.1500e-003	794.5013

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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	N20	CO2e
Percent Reduction	82.18	10.50	68.44	64.30	0.00	97.03	57.63	0.00	97.06	82.06	100.00	1.26	11.58	90.47	43.92	12.32

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	2/1/2021	4/1/2021	5	44	
2	Building Construction	Building Construction	6/3/2021	3/31/2022	5	216	
3	Paving	Paving	4/2/2021	6/2/2021	5	44	
4	Architectural Coating	Architectural Coating	1/2/2022	3/31/2022	5	64	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0.27

Residential Indoor: 38,313; Residential Outdoor: 12,771; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 720 (Architectural Coating – sqft)

OffRoad Equipment

Bewley Street Townhomes Project - Orange County, Winter

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Bewley Street Townhomes Project - Orange County, Winter

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					4.9200	0.0000	4.9200	2.5265	0.0000	2.5265			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.9200	0.6379	5.5579	2.5265	0.5869	3.1134		1,365.0648	1,365.0648	0.4415		1,376.1020

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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	lb/day										lb/day					
Hauling	0.0470	1.6368	0.4665	4.7300e-003	0.1108	5.1700e-003	0.1160	0.0303	4.9500e-003	0.0353		528.0866	528.0866	0.0568		529.5075
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	0.0327	0.0192	0.2242	8.0000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		79.6666	79.6666	1.7100e-003		79.7092
Total	0.0797	1.6560	0.6908	5.5300e-003	0.2002	5.7500e-003	0.2060	0.0540	5.4800e-003	0.0595		607.7532	607.7532	0.0586		609.2167

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					1.8229	0.0000	1.8229	0.9361	0.0000	0.9361			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	1.8229	0.6379	2.4608	0.9361	0.5869	1.5229	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

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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	lb/day										lb/day					
Hauling	0.0470	1.6368	0.4665	4.7300e-003	0.0889	5.1700e-003	0.0941	0.0250	4.9500e-003	0.0299		528.0866	528.0866	0.0568		529.5075
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	0.0327	0.0192	0.2242	8.0000e-004	0.0692	5.8000e-004	0.0698	0.0188	5.3000e-004	0.0193		79.6666	79.6666	1.7100e-003		79.7092
Total	0.0797	1.6560	0.6908	5.5300e-003	0.1581	5.7500e-003	0.1639	0.0437	5.4800e-003	0.0492		607.7532	607.7532	0.0586		609.2167

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Bewley Street Townhomes Project - Orange County, Winter

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	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	0.0112	0.3744	0.1117	9.6000e-004	0.0256	8.1000e-004	0.0264	7.3500e-003	7.7000e-004	8.1300e-003		104.8756	104.8756	8.8400e-003		105.0967
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	0.0725	0.4104	0.5321	2.4600e-003	0.1932	1.9000e-003	0.1951	0.0518	1.7700e-003	0.0536		254.2504	254.2504	0.0120		254.5515

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Bewley Street Townhomes Project - Orange County, Winter

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	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	0.0112	0.3744	0.1117	9.6000e-004	0.0208	8.1000e-004	0.0216	6.1900e-003	7.7000e-004	6.9600e-003		104.8756	104.8756	8.8400e-003		105.0967
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	0.0725	0.4104	0.5321	2.4600e-003	0.1506	1.9000e-003	0.1525	0.0414	1.7700e-003	0.0431		254.2504	254.2504	0.0120		254.5515

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Bewley Street Townhomes Project - Orange County, Winter

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	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	0.0105	0.3539	0.1077	9.5000e-004	0.0256	7.0000e-004	0.0263	7.3500e-003	6.7000e-004	8.0300e-003		103.8357	103.8357	8.5500e-003		104.0495
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	0.0686	0.3866	0.4994	2.3900e-003	0.1932	1.7600e-003	0.1950	0.0518	1.6500e-003	0.0535		247.6825	247.6825	0.0115		247.9688

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Bewley Street Townhomes Project - Orange County, Winter

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	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	0.0105	0.3539	0.1077	9.5000e-004	0.0208	7.0000e-004	0.0215	6.1900e-003	6.7000e-004	6.8600e-003		103.8357	103.8357	8.5500e-003		104.0495
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1298	1.0600e-003	0.1308	0.0352	9.8000e-004	0.0361		143.8468	143.8468	2.9000e-003		143.9194
Total	0.0686	0.3866	0.4994	2.3900e-003	0.1506	1.7600e-003	0.1524	0.0414	1.6500e-003	0.0430		247.6825	247.6825	0.0115		247.9688

3.4 Paving - 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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7846	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Bewley Street Townhomes Project - Orange County, Winter

3.4 Paving - 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	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	0.0531	0.0312	0.3644	1.3000e-003	0.1453	9.4000e-004	0.1463	0.0385	8.7000e-004	0.0394		129.4582	129.4582	2.7700e-003		129.5275
Total	0.0531	0.0312	0.3644	1.3000e-003	0.1453	9.4000e-004	0.1463	0.0385	8.7000e-004	0.0394		129.4582	129.4582	2.7700e-003		129.5275

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7846	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Bewley Street Townhomes Project - Orange County, Winter

3.4 Paving - 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	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	0.0531	0.0312	0.3644	1.3000e-003	0.1125	9.4000e-004	0.1134	0.0305	8.7000e-004	0.0313		129.4582	129.4582	2.7700e-003		129.5275
Total	0.0531	0.0312	0.3644	1.3000e-003	0.1125	9.4000e-004	0.1134	0.0305	8.7000e-004	0.0313		129.4582	129.4582	2.7700e-003		129.5275

3.5 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	1.9019					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	2.1065	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Bewley Street Townhomes Project - Orange County, Winter

3.5 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	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	0.0116	6.5200e-003	0.0784	2.9000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		28.7694	28.7694	5.8000e-004		28.7839
Total	0.0116	6.5200e-003	0.0784	2.9000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		28.7694	28.7694	5.8000e-004		28.7839

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	1.9019					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	2.1065	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

Bewley Street Townhomes Project - Orange County, Winter

3.5 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	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	0.0116	6.5200e-003	0.0784	2.9000e-004	0.0260	2.1000e-004	0.0262	7.0300e-003	2.0000e-004	7.2300e-003		28.7694	28.7694	5.8000e-004		28.7839
Total	0.0116	6.5200e-003	0.0784	2.9000e-004	0.0260	2.1000e-004	0.0262	7.0300e-003	2.0000e-004	7.2300e-003		28.7694	28.7694	5.8000e-004		28.7839

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bewley Street Townhomes 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	0.1064	0.4473	1.4149	5.5500e-003	0.5306	4.1400e-003	0.5348	0.1419	3.8500e-003	0.1458		564.3022	564.3022	0.0233		564.8842
Unmitigated	0.1064	0.4473	1.4149	5.5500e-003	0.5306	4.1400e-003	0.5348	0.1419	3.8500e-003	0.1458		564.3022	564.3022	0.0233		564.8842

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		
Condo/Townhouse	73.20	73.20	73.20	250,136	250,136
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	73.20	73.20	73.20	250,136	250,136

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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Bewley Street Townhomes Project - Orange County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Condo/Townhouse	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Enclosed Parking Structure	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Parking Lot	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934

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	lb/day										lb/day					
NaturalGas Mitigated	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
NaturalGas Unmitigated	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135

Bewley Street Townhomes Project - 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					
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
Condo/Townhouse	483.442	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135
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
Parking Lot	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
Total		5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135

Bewley Street Townhomes 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
Condo/Townhouse	0.307313	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
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
Parking Lot	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
Total		3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Bewley Street Townhomes 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	0.4552	0.1588	0.8919	1.0000e-003		0.0166	0.0166		0.0166	0.0166	0.0000	192.0790	192.0790	5.1000e-003	3.4900e-003	193.2478
Unmitigated	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742

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	0.0334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.6204	0.2075	5.0855	0.0130		0.7639	0.7639		0.7639	0.7639	93.6692	180.0000	273.6692	0.2793	6.3600e-003	282.5472
Landscaping	0.0252	9.5500e-003	0.8284	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003		1.4908	1.4908	1.4500e-003		1.5270
Total	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742

Bewley Street Townhomes 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	0.0334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0175	0.1493	0.0635	9.5000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	190.5882	190.5882	3.6500e-003	3.4900e-003	191.7208
Landscaping	0.0252	9.5500e-003	0.8284	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003		1.4908	1.4908	1.4500e-003		1.5270
Total	0.4552	0.1588	0.8919	9.9000e-004		0.0166	0.0166		0.0166	0.0166	0.0000	192.0791	192.0791	5.1000e-003	3.4900e-003	193.2478

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

Bewley Street Townhomes Project - 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

Bewley Street Townhomes Project - Orange County, Summer

Bewley Street Townhomes Project
Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	10.00	Dwelling Unit	0.63	18,920.00	29
Parking Lot	20.00	Space	0.18	8,000.00	0
City Park	0.15	Acre	0.15	6,534.00	0
Enclosed Parking Structure	4.00	1000sqft	0.09	4,000.00	0

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)	513	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bewley Street Townhomes Project - Orange County, Summer

Project Characteristics - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Grading -

Vehicle Trips - Per traffic study.

Energy Use -

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

Area Mitigation - SCAQMD Rule 445 prohibits the installation of any open or enclosed permanently installed wood burning device.

Energy Mitigation - % Improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

Bewley Street Townhomes 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	10.00	64.00
tblConstructionPhase	NumDays	200.00	216.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	PhaseEndDate	1/10/2022	3/31/2022
tblConstructionPhase	PhaseEndDate	12/13/2021	3/31/2022
tblConstructionPhase	PhaseEndDate	3/8/2021	4/1/2021
tblConstructionPhase	PhaseEndDate	12/27/2021	6/2/2021
tblConstructionPhase	PhaseStartDate	12/28/2021	1/2/2022
tblConstructionPhase	PhaseStartDate	3/9/2021	6/3/2021
tblConstructionPhase	PhaseStartDate	3/3/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	12/14/2021	4/2/2021
tblGrading	MaterialImported	0.00	2,239.00
tblLandUse	LandUseSquareFeet	10,000.00	18,920.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	7.32
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	7.32
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	7.32

2.0 Emissions Summary

Bewley Street Townhomes 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	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742
Energy	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135
Mobile	0.1083	0.4348	1.4838	5.8100e-003	0.5306	4.1300e-003	0.5347	0.1419	3.8400e-003	0.1457		590.3275	590.3275	0.0234		590.9118
Total	3.1716	0.6964	7.4166	0.0191	0.5306	0.7762	1.3068	0.1419	0.7759	0.9178	93.6692	828.6938	922.3630	0.3053	7.4000e-003	932.1996

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	0.4552	0.1588	0.8919	1.0000e-003		0.0166	0.0166		0.0166	0.0166	0.0000	192.0790	192.0790	5.1000e-003	3.4900e-003	193.2478
Energy	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
Mobile	0.1083	0.4348	1.4838	5.8100e-003	0.5306	4.1300e-003	0.5347	0.1419	3.8400e-003	0.1457		590.3275	590.3275	0.0234		590.9118
Total	0.5668	0.6220	2.3877	6.9900e-003	0.5306	0.0231	0.5537	0.1419	0.0228	0.1647	0.0000	818.5610	818.5610	0.0292	4.1500e-003	820.5289

Bewley Street Townhomes 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	N20	CO2e
Percent Reduction	82.13	10.69	67.81	63.42	0.00	97.03	57.63	0.00	97.07	82.06	100.00	1.22	11.25	90.45	43.92	11.98

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	2/1/2021	4/1/2021	5	44	
2	Building Construction	Building Construction	6/3/2021	3/31/2022	5	216	
3	Paving	Paving	4/2/2021	6/2/2021	5	44	
4	Architectural Coating	Architectural Coating	1/2/2022	3/31/2022	5	64	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0.27

Residential Indoor: 38,313; Residential Outdoor: 12,771; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 720 (Architectural Coating – sqft)

OffRoad Equipment

Bewley Street Townhomes Project - Orange County, Summer

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Bewley Street Townhomes Project - Orange County, Summer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					4.9200	0.0000	4.9200	2.5265	0.0000	2.5265			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.9200	0.6379	5.5579	2.5265	0.5869	3.1134		1,365.0648	1,365.0648	0.4415		1,376.1020

Bewley Street Townhomes Project - Orange County, Summer

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	lb/day										lb/day					
Hauling	0.0458	1.6177	0.4444	4.8000e-003	0.1108	5.0800e-003	0.1159	0.0303	4.8600e-003	0.0352		536.2114	536.2114	0.0556		537.6012
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	0.0289	0.0175	0.2430	8.4000e-004	0.0894	5.8000e-004	0.0900	0.0237	5.3000e-004	0.0243		84.1755	84.1755	1.8000e-003		84.2206
Total	0.0747	1.6352	0.6874	5.6400e-003	0.2002	5.6600e-003	0.2059	0.0540	5.3900e-003	0.0594		620.3869	620.3869	0.0574		621.8218

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					1.8229	0.0000	1.8229	0.9361	0.0000	0.9361			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	1.8229	0.6379	2.4608	0.9361	0.5869	1.5229	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Bewley Street Townhomes Project - Orange County, Summer

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	lb/day										lb/day					
Hauling	0.0458	1.6177	0.4444	4.8000e-003	0.0889	5.0800e-003	0.0940	0.0250	4.8600e-003	0.0298		536.2114	536.2114	0.0556		537.6012
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	0.0289	0.0175	0.2430	8.4000e-004	0.0692	5.8000e-004	0.0698	0.0188	5.3000e-004	0.0193		84.1755	84.1755	1.8000e-003		84.2206
Total	0.0747	1.6352	0.6874	5.6400e-003	0.1581	5.6600e-003	0.1638	0.0437	5.3900e-003	0.0491		620.3869	620.3869	0.0574		621.8218

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Bewley Street Townhomes Project - Orange County, Summer

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	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	0.0107	0.3753	0.1018	9.9000e-004	0.0256	7.8000e-004	0.0263	7.3500e-003	7.5000e-004	8.1000e-003		107.5170	107.5170	8.4300e-003		107.7278
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	0.0648	0.4080	0.5574	2.5700e-003	0.1932	1.8700e-003	0.1951	0.0518	1.7500e-003	0.0536		265.3461	265.3461	0.0118		265.6414

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Bewley Street Townhomes Project - Orange County, Summer

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	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	0.0107	0.3753	0.1018	9.9000e-004	0.0208	7.8000e-004	0.0216	6.1900e-003	7.5000e-004	6.9400e-003		107.5170	107.5170	8.4300e-003		107.7278
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	0.0648	0.4080	0.5574	2.5700e-003	0.1506	1.8700e-003	0.1524	0.0414	1.7500e-003	0.0431		265.3461	265.3461	0.0118		265.6414

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581

Bewley Street Townhomes Project - Orange County, Summer

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	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	0.0100	0.3550	0.0983	9.8000e-004	0.0256	6.8000e-004	0.0262	7.3500e-003	6.5000e-004	8.0000e-003		106.4610	106.4610	8.1700e-003		106.6652
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	0.0612	0.3847	0.5235	2.5000e-003	0.1932	1.7400e-003	0.1950	0.0518	1.6300e-003	0.0535		258.4412	258.4412	0.0112		258.7221

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581

Bewley Street Townhomes Project - Orange County, Summer

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	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	0.0100	0.3550	0.0983	9.8000e-004	0.0208	6.8000e-004	0.0215	6.1900e-003	6.5000e-004	6.8400e-003		106.4610	106.4610	8.1700e-003		106.6652
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1298	1.0600e-003	0.1308	0.0352	9.8000e-004	0.0361		151.9802	151.9802	3.0700e-003		152.0569
Total	0.0612	0.3847	0.5235	2.5000e-003	0.1506	1.7400e-003	0.1523	0.0414	1.6300e-003	0.0430		258.4412	258.4412	0.0112		258.7221

3.4 Paving - 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	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7846	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Bewley Street Townhomes Project - Orange County, Summer

3.4 Paving - 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	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	0.0469	0.0284	0.3949	1.3700e-003	0.1453	9.4000e-004	0.1463	0.0385	8.7000e-004	0.0394		136.7852	136.7852	2.9300e-003		136.8585
Total	0.0469	0.0284	0.3949	1.3700e-003	0.1453	9.4000e-004	0.1463	0.0385	8.7000e-004	0.0394		136.7852	136.7852	2.9300e-003		136.8585

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.7846	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Bewley Street Townhomes Project - Orange County, Summer

3.4 Paving - 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	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	0.0469	0.0284	0.3949	1.3700e-003	0.1125	9.4000e-004	0.1134	0.0305	8.7000e-004	0.0313		136.7852	136.7852	2.9300e-003		136.8585
Total	0.0469	0.0284	0.3949	1.3700e-003	0.1125	9.4000e-004	0.1134	0.0305	8.7000e-004	0.0313		136.7852	136.7852	2.9300e-003		136.8585

3.5 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	1.9019					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	2.1065	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Bewley Street Townhomes Project - Orange County, Summer

3.5 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	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	0.0102	5.9400e-003	0.0850	3.0000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		30.3960	30.3960	6.1000e-004		30.4114
Total	0.0102	5.9400e-003	0.0850	3.0000e-004	0.0335	2.1000e-004	0.0338	8.8900e-003	2.0000e-004	9.0900e-003		30.3960	30.3960	6.1000e-004		30.4114

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	1.9019					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	2.1065	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

Bewley Street Townhomes Project - Orange County, Summer

3.5 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	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	0.0102	5.9400e-003	0.0850	3.0000e-004	0.0260	2.1000e-004	0.0262	7.0300e-003	2.0000e-004	7.2300e-003		30.3960	30.3960	6.1000e-004		30.4114
Total	0.0102	5.9400e-003	0.0850	3.0000e-004	0.0260	2.1000e-004	0.0262	7.0300e-003	2.0000e-004	7.2300e-003		30.3960	30.3960	6.1000e-004		30.4114

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Bewley Street Townhomes 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	0.1083	0.4348	1.4838	5.8100e-003	0.5306	4.1300e-003	0.5347	0.1419	3.8400e-003	0.1457		590.3275	590.3275	0.0234		590.9118
Unmitigated	0.1083	0.4348	1.4838	5.8100e-003	0.5306	4.1300e-003	0.5347	0.1419	3.8400e-003	0.1457		590.3275	590.3275	0.0234		590.9118

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		
Condo/Townhouse	73.20	73.20	73.20	250,136	250,136
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	73.20	73.20	73.20	250,136	250,136

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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Bewley Street Townhomes Project - Orange County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Condo/Townhouse	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Enclosed Parking Structure	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Parking Lot	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934

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	lb/day										lb/day					
NaturalGas Mitigated	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
NaturalGas Unmitigated	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135

Bewley Street Townhomes Project - 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					
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
Condo/Townhouse	483.442	5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135
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
Parking Lot	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
Total		5.2100e-003	0.0446	0.0190	2.8000e-004		3.6000e-003	3.6000e-003		3.6000e-003	3.6000e-003		56.8755	56.8755	1.0900e-003	1.0400e-003	57.2135

Bewley Street Townhomes 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
Condo/Townhouse	0.307313	3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693
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
Parking Lot	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
Total		3.3100e-003	0.0283	0.0121	1.8000e-004		2.2900e-003	2.2900e-003		2.2900e-003	2.2900e-003		36.1545	36.1545	6.9000e-004	6.6000e-004	36.3693

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

Bewley Street Townhomes 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	0.4552	0.1588	0.8919	1.0000e-003		0.0166	0.0166		0.0166	0.0166	0.0000	192.0790	192.0790	5.1000e-003	3.4900e-003	193.2478
Unmitigated	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742

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	0.0334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	2.6204	0.2075	5.0855	0.0130		0.7639	0.7639		0.7639	0.7639	93.6692	180.0000	273.6692	0.2793	6.3600e-003	282.5472
Landscaping	0.0252	9.5500e-003	0.8284	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003		1.4908	1.4908	1.4500e-003		1.5270
Total	3.0581	0.2170	5.9139	0.0130		0.7685	0.7685		0.7685	0.7685	93.6692	181.4908	275.1600	0.2808	6.3600e-003	284.0742

Bewley Street Townhomes 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	0.0334					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3792					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0175	0.1493	0.0635	9.5000e-004		0.0121	0.0121		0.0121	0.0121	0.0000	190.5882	190.5882	3.6500e-003	3.4900e-003	191.7208
Landscaping	0.0252	9.5500e-003	0.8284	4.0000e-005		4.5700e-003	4.5700e-003		4.5700e-003	4.5700e-003		1.4908	1.4908	1.4500e-003		1.5270
Total	0.4552	0.1588	0.8919	9.9000e-004		0.0166	0.0166		0.0166	0.0166	0.0000	192.0791	192.0791	5.1000e-003	3.4900e-003	193.2478

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

- Institute Recycling and Composting Services

Bewley Street Townhomes Project - 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
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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

Bewley Street Townhomes Project - Orange County, Annual

Bewley Street Townhomes Project
Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	10.00	Dwelling Unit	0.63	18,920.00	29
Parking Lot	20.00	Space	0.18	8,000.00	0
City Park	0.15	Acre	0.15	6,534.00	0
Enclosed Parking Structure	4.00	1000sqft	0.09	4,000.00	0

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)	513	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Bewley Street Townhomes Project - Orange County, Annual

Project Characteristics - CO2 Intensity Factor Source: Southern California Edison, 2018 Sustainability Report, dated May 2019.

Land Use - Per project description and site plan.

Construction Phase - Per construction questionnaire.

Grading -

Vehicle Trips - Per traffic study.

Energy Use -

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

Area Mitigation - SCAQMD Rule 445 prohibits the installation of any open or enclosed permanently installed wood burning device.

Energy Mitigation - % Improvement based on efficiency of 2019 Title 24 Standards compared to 2016 Title 24 Standards.

Water Mitigation -

Waste Mitigation -

Bewley Street Townhomes 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	10.00	64.00
tblConstructionPhase	NumDays	200.00	216.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	44.00
tblConstructionPhase	PhaseEndDate	1/10/2022	3/31/2022
tblConstructionPhase	PhaseEndDate	12/13/2021	3/31/2022
tblConstructionPhase	PhaseEndDate	3/8/2021	4/1/2021
tblConstructionPhase	PhaseEndDate	12/27/2021	6/2/2021
tblConstructionPhase	PhaseStartDate	12/28/2021	1/2/2022
tblConstructionPhase	PhaseStartDate	3/9/2021	6/3/2021
tblConstructionPhase	PhaseStartDate	3/3/2021	2/1/2021
tblConstructionPhase	PhaseStartDate	12/14/2021	4/2/2021
tblGrading	MaterialImported	0.00	2,239.00
tblLandUse	LandUseSquareFeet	10,000.00	18,920.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	513
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	5.67	7.32
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	4.84	7.32
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	5.81	7.32

2.0 Emissions Summary

Bewley Street Townhomes Project - Orange County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-1-2021	4-30-2021	0.4610	0.4610
2	5-1-2021	7-31-2021	0.4369	0.4369
3	8-1-2021	10-31-2021	0.5232	0.5232
4	11-1-2021	1-31-2022	0.5467	0.5467
5	2-1-2022	4-30-2022	0.3822	0.3822
		Highest	0.5467	0.5467

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	0.1112	3.7900e-003	0.1671	1.7000e-004		0.0101	0.0101		0.0101	0.0101	1.0622	2.2102	3.2724	3.3300e-003	7.0000e-005	3.3772
Energy	9.5000e-004	8.1300e-003	3.4600e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	26.9068	26.9068	1.1700e-003	3.8000e-004	27.0484
Mobile	0.0188	0.0828	0.2612	1.0200e-003	0.0949	7.5000e-004	0.0956	0.0254	7.0000e-004	0.0261	0.0000	94.3033	94.3033	3.8300e-003	0.0000	94.3992
Waste						0.0000	0.0000		0.0000	0.0000	0.9358	0.0000	0.9358	0.0553	0.0000	2.3184
Water						0.0000	0.0000		0.0000	0.0000	0.2067	3.4980	3.7047	0.0214	5.4000e-004	4.4020
Total	0.1310	0.0947	0.4317	1.2400e-003	0.0949	0.0115	0.1064	0.0254	0.0115	0.0369	2.2047	126.9184	129.1230	0.0851	9.9000e-004	131.5452

Bewley Street Townhomes Project - Orange County, Annual

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	0.0787	3.0600e-003	0.1043	2.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	2.3303	2.3303	2.1000e-004	4.0000e-005	2.3472
Energy	6.0000e-004	5.1700e-003	2.2000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	21.3298	21.3298	9.8000e-004	2.9000e-004	21.4405
Mobile	0.0188	0.0828	0.2612	1.0200e-003	0.0949	7.5000e-004	0.0956	0.0254	7.0000e-004	0.0261	0.0000	94.3033	94.3033	3.8300e-003	0.0000	94.3992
Waste						0.0000	0.0000		0.0000	0.0000	0.4679	0.0000	0.4679	0.0277	0.0000	1.1592
Water						0.0000	0.0000		0.0000	0.0000	0.1654	3.1032	3.2686	0.0172	4.4000e-004	3.8279
Total	0.0981	0.0910	0.3677	1.0700e-003	0.0949	1.8900e-003	0.0968	0.0254	1.8400e-003	0.0273	0.6333	121.0666	121.6999	0.0498	7.7000e-004	123.1740

	ROG	NOx	CO	SO2	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	25.11	3.90	14.83	13.71	0.00	83.61	9.06	0.00	83.97	26.13	71.28	4.61	5.75	41.42	22.22	6.36

3.0 Construction Detail

Construction Phase

Bewley Street Townhomes Project - Orange County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	2/1/2021	4/1/2021	5	44	
2	Building Construction	Building Construction	6/3/2021	3/31/2022	5	216	
3	Paving	Paving	4/2/2021	6/2/2021	5	44	
4	Architectural Coating	Architectural Coating	1/2/2022	3/31/2022	5	64	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0.27

Residential Indoor: 38,313; Residential Outdoor: 12,771; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 720 (Architectural Coating – sqft)

OffRoad Equipment

Bewley Street Townhomes Project - Orange County, Annual

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	3	8.00	0.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Bewley Street Townhomes Project - Orange County, Annual

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

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					0.1082	0.0000	0.1082	0.0556	0.0000	0.0556	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0283	0.3153	0.1393	3.1000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	27.2441	27.2441	8.8100e-003	0.0000	27.4643
Total	0.0283	0.3153	0.1393	3.1000e-004	0.1082	0.0140	0.1223	0.0556	0.0129	0.0685	0.0000	27.2441	27.2441	8.8100e-003	0.0000	27.4643

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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	1.0200e-003	0.0367	9.9900e-003	1.0000e-004	2.4000e-003	1.1000e-004	2.5100e-003	6.6000e-004	1.1000e-004	7.7000e-004	0.0000	10.6336	10.6336	1.1200e-003	0.0000	10.6616
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	6.4000e-004	4.3000e-004	5.0600e-003	2.0000e-005	1.9300e-003	1.0000e-005	1.9400e-003	5.1000e-004	1.0000e-005	5.2000e-004	0.0000	1.6143	1.6143	3.0000e-005	0.0000	1.6151
Total	1.6600e-003	0.0371	0.0151	1.2000e-004	4.3300e-003	1.2000e-004	4.4500e-003	1.1700e-003	1.2000e-004	1.2900e-003	0.0000	12.2479	12.2479	1.1500e-003	0.0000	12.2768

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					0.0401	0.0000	0.0401	0.0206	0.0000	0.0206	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0283	0.3153	0.1393	3.1000e-004		0.0140	0.0140		0.0129	0.0129	0.0000	27.2440	27.2440	8.8100e-003	0.0000	27.4643
Total	0.0283	0.3153	0.1393	3.1000e-004	0.0401	0.0140	0.0541	0.0206	0.0129	0.0335	0.0000	27.2440	27.2440	8.8100e-003	0.0000	27.4643

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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	1.0200e-003	0.0367	9.9900e-003	1.0000e-004	1.9300e-003	1.1000e-004	2.0400e-003	5.4000e-004	1.1000e-004	6.5000e-004	0.0000	10.6336	10.6336	1.1200e-003	0.0000	10.6616
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	6.4000e-004	4.3000e-004	5.0600e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.6143	1.6143	3.0000e-005	0.0000	1.6151
Total	1.6600e-003	0.0371	0.0151	1.2000e-004	3.4300e-003	1.2000e-004	3.5500e-003	9.5000e-004	1.2000e-004	1.0700e-003	0.0000	12.2479	12.2479	1.1500e-003	0.0000	12.2768

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	0.1378	1.0363	0.9804	1.6800e-003		0.0520	0.0520		0.0502	0.0502	0.0000	137.9762	137.9762	0.0246	0.0000	138.5920
Total	0.1378	1.0363	0.9804	1.6800e-003		0.0520	0.0520		0.0502	0.0502	0.0000	137.9762	137.9762	0.0246	0.0000	138.5920

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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	8.3000e-004	0.0290	8.1200e-003	7.0000e-005	1.9100e-003	6.0000e-005	1.9700e-003	5.5000e-004	6.0000e-005	6.1000e-004	0.0000	7.3364	7.3364	5.9000e-004	0.0000	7.3512
Worker	4.1800e-003	2.8100e-003	0.0328	1.2000e-004	0.0125	8.0000e-005	0.0126	3.3200e-003	8.0000e-005	3.4000e-003	0.0000	10.4560	10.4560	2.2000e-004	0.0000	10.4616
Total	5.0100e-003	0.0318	0.0409	1.9000e-004	0.0144	1.4000e-004	0.0146	3.8700e-003	1.4000e-004	4.0100e-003	0.0000	17.7924	17.7924	8.1000e-004	0.0000	17.8128

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	0.1378	1.0363	0.9804	1.6800e-003		0.0520	0.0520		0.0502	0.0502	0.0000	137.9760	137.9760	0.0246	0.0000	138.5918
Total	0.1378	1.0363	0.9804	1.6800e-003		0.0520	0.0520		0.0502	0.0502	0.0000	137.9760	137.9760	0.0246	0.0000	138.5918

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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	8.3000e-004	0.0290	8.1200e-003	7.0000e-005	1.5600e-003	6.0000e-005	1.6200e-003	4.7000e-004	6.0000e-005	5.2000e-004	0.0000	7.3364	7.3364	5.9000e-004	0.0000	7.3512
Worker	4.1800e-003	2.8100e-003	0.0328	1.2000e-004	9.6900e-003	8.0000e-005	9.7800e-003	2.6300e-003	8.0000e-005	2.7100e-003	0.0000	10.4560	10.4560	2.2000e-004	0.0000	10.4616
Total	5.0100e-003	0.0318	0.0409	1.9000e-004	0.0113	1.4000e-004	0.0114	3.1000e-003	1.4000e-004	3.2300e-003	0.0000	17.7924	17.7924	8.1000e-004	0.0000	17.8128

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	0.0528	0.4001	0.4073	7.1000e-004		0.0188	0.0188		0.0182	0.0182	0.0000	58.1046	58.1046	0.0101	0.0000	58.3576
Total	0.0528	0.4001	0.4073	7.1000e-004		0.0188	0.0188		0.0182	0.0182	0.0000	58.1046	58.1046	0.0101	0.0000	58.3576

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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	3.3000e-004	0.0115	3.3000e-003	3.0000e-005	8.1000e-004	2.0000e-005	8.3000e-004	2.3000e-004	2.0000e-005	2.5000e-004	0.0000	3.0586	3.0586	2.4000e-004	0.0000	3.0646
Worker	1.6600e-003	1.0700e-003	0.0129	5.0000e-005	5.2700e-003	3.0000e-005	5.3000e-003	1.4000e-003	3.0000e-005	1.4300e-003	0.0000	4.2395	4.2395	9.0000e-005	0.0000	4.2417
Total	1.9900e-003	0.0126	0.0162	8.0000e-005	6.0800e-003	5.0000e-005	6.1300e-003	1.6300e-003	5.0000e-005	1.6800e-003	0.0000	7.2981	7.2981	3.3000e-004	0.0000	7.3063

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	0.0528	0.4001	0.4073	7.1000e-004		0.0188	0.0188		0.0182	0.0182	0.0000	58.1045	58.1045	0.0101	0.0000	58.3575
Total	0.0528	0.4001	0.4073	7.1000e-004		0.0188	0.0188		0.0182	0.0182	0.0000	58.1045	58.1045	0.0101	0.0000	58.3575

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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	3.3000e-004	0.0115	3.3000e-003	3.0000e-005	6.6000e-004	2.0000e-005	6.8000e-004	2.0000e-004	2.0000e-005	2.2000e-004	0.0000	3.0586	3.0586	2.4000e-004	0.0000	3.0646
Worker	1.6600e-003	1.0700e-003	0.0129	5.0000e-005	4.0800e-003	3.0000e-005	4.1200e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	4.2395	4.2395	9.0000e-005	0.0000	4.2417
Total	1.9900e-003	0.0126	0.0162	8.0000e-005	4.7400e-003	5.0000e-005	4.8000e-003	1.3100e-003	5.0000e-005	1.3600e-003	0.0000	7.2981	7.2981	3.3000e-004	0.0000	7.3063

3.4 Paving - 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	0.0170	0.1703	0.1949	3.0000e-004		9.1400e-003	9.1400e-003		8.4200e-003	8.4200e-003	0.0000	25.8829	25.8829	8.2100e-003	0.0000	26.0881
Paving	2.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0173	0.1703	0.1949	3.0000e-004		9.1400e-003	9.1400e-003		8.4200e-003	8.4200e-003	0.0000	25.8829	25.8829	8.2100e-003	0.0000	26.0881

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3.4 Paving - 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	1.0500e-003	7.0000e-004	8.2200e-003	3.0000e-005	3.1400e-003	2.0000e-005	3.1600e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6232	2.6232	6.0000e-005	0.0000	2.6246
Total	1.0500e-003	7.0000e-004	8.2200e-003	3.0000e-005	3.1400e-003	2.0000e-005	3.1600e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6232	2.6232	6.0000e-005	0.0000	2.6246

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	0.0170	0.1703	0.1949	3.0000e-004		9.1400e-003	9.1400e-003		8.4200e-003	8.4200e-003	0.0000	25.8829	25.8829	8.2100e-003	0.0000	26.0880
Paving	2.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0173	0.1703	0.1949	3.0000e-004		9.1400e-003	9.1400e-003		8.4200e-003	8.4200e-003	0.0000	25.8829	25.8829	8.2100e-003	0.0000	26.0880

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3.4 Paving - 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	1.0500e-003	7.0000e-004	8.2200e-003	3.0000e-005	2.4300e-003	2.0000e-005	2.4500e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.6232	2.6232	6.0000e-005	0.0000	2.6246
Total	1.0500e-003	7.0000e-004	8.2200e-003	3.0000e-005	2.4300e-003	2.0000e-005	2.4500e-003	6.6000e-004	2.0000e-005	6.8000e-004	0.0000	2.6232	2.6232	6.0000e-005	0.0000	2.6246

3.5 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	0.0609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5500e-003	0.0451	0.0580	1.0000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	8.1704	8.1704	5.3000e-004	0.0000	8.1837
Total	0.0674	0.0451	0.0580	1.0000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	8.1704	8.1704	5.3000e-004	0.0000	8.1837

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3.5 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	3.3000e-004	2.1000e-004	2.5700e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8479	0.8479	2.0000e-005	0.0000	0.8483
Total	3.3000e-004	2.1000e-004	2.5700e-003	1.0000e-005	1.0500e-003	1.0000e-005	1.0600e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8479	0.8479	2.0000e-005	0.0000	0.8483

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	0.0609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5500e-003	0.0451	0.0580	1.0000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	8.1704	8.1704	5.3000e-004	0.0000	8.1837
Total	0.0674	0.0451	0.0580	1.0000e-004		2.6100e-003	2.6100e-003		2.6100e-003	2.6100e-003	0.0000	8.1704	8.1704	5.3000e-004	0.0000	8.1837

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3.5 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	3.3000e-004	2.1000e-004	2.5700e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.8479	0.8479	2.0000e-005	0.0000	0.8483
Total	3.3000e-004	2.1000e-004	2.5700e-003	1.0000e-005	8.2000e-004	1.0000e-005	8.2000e-004	2.2000e-004	1.0000e-005	2.3000e-004	0.0000	0.8479	0.8479	2.0000e-005	0.0000	0.8483

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	0.0188	0.0828	0.2612	1.0200e-003	0.0949	7.5000e-004	0.0956	0.0254	7.0000e-004	0.0261	0.0000	94.3033	94.3033	3.8300e-003	0.0000	94.3992
Unmitigated	0.0188	0.0828	0.2612	1.0200e-003	0.0949	7.5000e-004	0.0956	0.0254	7.0000e-004	0.0261	0.0000	94.3033	94.3033	3.8300e-003	0.0000	94.3992

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		
Condo/Townhouse	73.20	73.20	73.20	250,136	250,136
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	73.20	73.20	73.20	250,136	250,136

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
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Condo/Townhouse	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Enclosed Parking Structure	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934
Parking Lot	0.561378	0.043284	0.209473	0.111826	0.015545	0.005795	0.025829	0.017125	0.001747	0.001542	0.004926	0.000594	0.000934

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	15.3440	15.3440	8.7000e-004	1.8000e-004	15.4192
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	17.4904	17.4904	9.9000e-004	2.0000e-004	17.5761
NaturalGas Mitigated	6.0000e-004	5.1700e-003	2.2000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9858	5.9858	1.1000e-004	1.1000e-004	6.0214
NaturalGas Unmitigated	9.5000e-004	8.1300e-003	3.4600e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4164	9.4164	1.8000e-004	1.7000e-004	9.4723

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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					
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
Condo/Townhouse	176456	9.5000e-004	8.1300e-003	3.4600e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4164	9.4164	1.8000e-004	1.7000e-004	9.4723
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
Parking Lot	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
Total		9.5000e-004	8.1300e-003	3.4600e-003	5.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004	0.0000	9.4164	9.4164	1.8000e-004	1.7000e-004	9.4723

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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
Condo/Townhouse	112169	6.0000e-004	5.1700e-003	2.2000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9858	5.9858	1.1000e-004	1.1000e-004	6.0214
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
Parking Lot	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
Total		6.0000e-004	5.1700e-003	2.2000e-003	3.0000e-005		4.2000e-004	4.2000e-004		4.2000e-004	4.2000e-004	0.0000	5.9858	5.9858	1.1000e-004	1.1000e-004	6.0214

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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			
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	49685.2	11.5614	6.5000e-004	1.4000e-004	11.6180
Enclosed Parking Structure	22680	5.2775	3.0000e-004	6.0000e-005	5.3033
Parking Lot	2800	0.6515	4.0000e-005	1.0000e-005	0.6547
Total		17.4904	9.9000e-004	2.1000e-004	17.5761

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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
Condo/Townhouse	48771.4	11.3488	6.4000e-004	1.3000e-004	11.4044
Enclosed Parking Structure	14369.6	3.3437	1.9000e-004	4.0000e-005	3.3601
Parking Lot	2800	0.6515	4.0000e-005	1.0000e-005	0.6547
Total		15.3440	8.7000e-004	1.8000e-004	15.4192

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Bewley Street Townhomes 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	0.0787	3.0600e-003	0.1043	2.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	2.3303	2.3303	2.1000e-004	4.0000e-005	2.3472
Unmitigated	0.1112	3.7900e-003	0.1671	1.7000e-004		0.0101	0.0101		0.0101	0.0101	1.0622	2.2102	3.2724	3.3300e-003	7.0000e-005	3.3772

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	6.0900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0328	2.5900e-003	0.0636	1.6000e-004		9.5500e-003	9.5500e-003		9.5500e-003	9.5500e-003	1.0622	2.0412	3.1034	3.1700e-003	7.0000e-005	3.2040
Landscaping	3.1500e-003	1.1900e-003	0.1036	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.1691	0.1691	1.6000e-004	0.0000	0.1732
Total	0.1112	3.7800e-003	0.1671	1.7000e-004		0.0101	0.0101		0.0101	0.0101	1.0622	2.2102	3.2724	3.3300e-003	7.0000e-005	3.3772

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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	6.0900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.2000e-004	1.8700e-003	7.9000e-004	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1612	2.1612	4.0000e-005	4.0000e-005	2.1741
Landscaping	3.1500e-003	1.1900e-003	0.1036	1.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	0.1691	0.1691	1.6000e-004	0.0000	0.1732
Total	0.0787	3.0600e-003	0.1043	2.0000e-005		7.2000e-004	7.2000e-004		7.2000e-004	7.2000e-004	0.0000	2.3303	2.3303	2.0000e-004	4.0000e-005	2.3472

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

Bewley Street Townhomes Project - Orange County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.2686	0.0172	4.4000e-004	3.8279
Unmitigated	3.7047	0.0214	5.4000e-004	4.4020

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.178722	0.4620	3.0000e-005	1.0000e-005	0.4643
Condo/Townhouse	0.65154 / 0.410754	3.2427	0.0214	5.4000e-004	3.9377
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.7047	0.0214	5.5000e-004	4.4020

Bewley Street Townhomes Project - Orange County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.178722	0.4620	3.0000e-005	1.0000e-005	0.4643
Condo/Townhouse	0.521232 / 0.410754	2.8065	0.0171	4.3000e-004	3.3636
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.2686	0.0172	4.4000e-004	3.8279

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Bewley Street Townhomes Project - Orange County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.4679	0.0277	0.0000	1.1592
Unmitigated	0.9358	0.0553	0.0000	2.3184

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.01	2.0300e-003	1.2000e-004	0.0000	5.0300e-003
Condo/Townhouse	4.6	0.9338	0.0552	0.0000	2.3134
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.9358	0.0553	0.0000	2.3184

Bewley Street Townhomes 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	0.005	1.0100e-003	6.0000e-005	0.0000	2.5100e-003
Condo/Townhouse	2.3	0.4669	0.0276	0.0000	1.1567
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.4679	0.0277	0.0000	1.1592

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

Bewley Street Townhomes Project - Orange County, Annual

Equipment Type	Number
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11.0 Vegetation

**Bewley Street Project
Energy Calculations**

Land Use	Natural Gas Use		Electricity Use	
	(kBTU/yr)	(Therms)	(kWh/yr)	(MWh/yr)
City Park	0	0	0	0
Condo/Townhouse	112,169	1,122	48,771	49
Enclosed Parking Structure	0	0	14,370	14
Parking Lot	0	0	2,800	3
Totals	112,169	1,122	65,941	66

1 kBTU = 0.01 therms

Energy Type	Project Annual Energy Consumption	Orange County Annual Energy Consumption	Percentage Increase Countywide
Electricity	66	20,196,975	0.0003%
Natural Gas	1,122	575,133,597	0.0002%

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

Bewley Steet 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	0.56	--	140420.85	22	6,383
Light/Medium Trucks	0.39	--	96520.98	17.3	5,579
Heavy Trucks/Other	0.05	--	13194.17	6.4	2,062
TOTAL⁶	1.00	--	250,136	--	14,024

Notes:

1. Percent of Vehicle Trip distribution based on trip characteristics within the CalEEMod model.
2. Daily Trips calculated by multiplying the total daily trips by percent vehicle trips (i.e., Daily Trips x percent of Vehicle Trips).
3. Daily Vehicle Miles Traveled (VMT) calculated by multiplying percent vehicle trips by total VMT (i.e., VMT x percent of Vehicle Trips).
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.

**Bewley Street 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	44	8	14.7	5174		207.78
Paving	44	13	14.7	8408	24.90284233	337.65
Building Construction	216	15	14.7	47628		1912.55
Architectural Coating	64	3	14.7	2822		113.34
						2571.32
VENDOR TRIPS						
Phase	Phase Length (# days)	# Vendor Trips	Vendor Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)	Total Fuel Consumption
Grading	44	0	6.9	0		0.00
Paving	44	0	6.9	0	8.343886151	0.00
Building Construction	216	49	6.9	338		40.52
Architectural Coating	64	0	6.9	0		0.00
						40.52
HAULING TRIPS						
Phase	Phase Length (# days)	# Hauling Trips	Hauling Trip Length	Total VMT	Fuel Consumption Factor (Miles/Gallon/Day)¹	Total Fuel Consumption
Grading	44	280	20	5600		671.15
Paving	44	0	20	0	8.343886151	0.00
Building Construction	216	0	20	0		0.00
Architectural Coating	64	0	20	0		0.00
						0.00
TOTAL OFF-SITE MOBILE GALLONS CONSUMED DURING CONSTRUCTION						2,611.84

Bewley Street 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	Rubber Tired Dozers	1	6.00	247	0.40	3.952	6	44	1043.33
	Tractors/Loaders/Backhoes	1	7.00	97	0.37	1.4356	7	44	442.16
	Graders	1	6.00	187	0.41	3.0668	6	44	809.64
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	0.2016	6	44	53.22
	Pavers	1	6.00	130	0.42	2.184	6	44	576.58
	Rollers	1	7.00	80	0.38	1.216	7	44	374.53
	Tractors/Loaders/Backhoes	1	8.00	97	0.37	1.4356	8	44	505.33
	Paving Equipment	1	8.00	132	0.36	1.9008	8	44	669.08
Building Construction	Generator Sets	1	8.00	84	0.74	2.4864	8	216	4296.50
	Cranes	1	6.00	231	0.29	2.6796	6	216	3472.76
	Forklifts	1	6.00	89	0.20	0.712	6	216	922.75
	Tractors/Loaders/Backhoes	1	6.00	97	0.37	1.4356	6	216	1860.54
	Welders	3	8.00	46	0.45	0.828	24	216	4292.35
Architectural Coating	Air Compressors	1	6.00	78	0.48	1.4976	6	64	575.08
								Total:	22,506
Notes:								Off-Site Mobile Construction Total:	2,611.84
Fuel Consumption Rate = Horsepower x Load Factor x Fuel Consumption Factor								TOTAL:	25,118
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.									