

## Appendix A

### Air Quality/Energy/Greenhouse Gas Emissions Data

City of Gardena - Townhome - Los Angeles-South Coast County, Annual

**City of Gardena - Townhome**  
**Los Angeles-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.43	Acre	1.43	62,107.85	0
City Park	1.16	Acre	1.16	50,706.00	0
City Park	0.25	Acre	0.25	10,758.00	0
Condo/Townhouse High Rise	84.00	Dwelling Unit	1.39	84,000.00	240

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	8			<b>Operational Year</b>	2022
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

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Project Characteristics -

Land Use - 84 3-story condos (approx. 1.3942 bldg footprint). Approx. 50,706 sf of open space w/in common open space areas (1.1641 acres); Approx. 0.2469697 sf of landscaping. Remaining area for asphalt surface (1.4258 acres). 4.23 acres total.

Construction Phase - Overall construction schedule as provided by project applicant.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

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Trips and VMT - Default values used for construction phase trips.

Demolition - Demolition of a total of 6,100 sf (as provided by project applicant). Includes Motel, approx. 3100 SF, Nursery retail building, approx. 3000 SF. In addition, an approximate 4800 SF greenhouse structure will be demolished.

Grading - Assume entire site (4.15 acres) is graded. Import of 4500 CY of soil (as provided by project applicant).

Vehicle Trips - 5.44 trips per dwelling unit, as provided by the Traffic Study prepared by Kittelson & Associates, Inc. (June 2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Woodstoves - Per SCAQMD Rule 445; No Woodstoves or wood fireplaces. No hearths.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

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tblFireplaces	NumberGas	71.40	0.00
tblFireplaces	NumberNoFireplace	8.40	0.00
tblFireplaces	NumberWood	4.20	0.00
tblGrading	AcresOfGrading	4.00	4.15
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	4,500.00
tblLandUse	LandUseSquareFeet	62,290.80	62,107.85
tblLandUse	LandUseSquareFeet	10,890.00	10,758.00
tblLandUse	LandUseSquareFeet	50,529.60	50,706.00
tblLandUse	LotAcreage	1.31	1.39
tblOffRoadEquipment	HorsePower	97.00	158.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblTripsAndVMT	HaulingTripNumber	563.00	562.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	22.75	0.00

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tblVehicleTrips	ST_TR	4.31	5.44
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	5.44
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	5.44
tblWoodstoves	NumberCatalytic	4.20	0.00
tblWoodstoves	NumberNoncatalytic	4.20	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	1-22-2021	4-21-2021	0.9058	0.9058
2	4-22-2021	7-21-2021	0.5880	0.5880
3	7-22-2021	10-21-2021	0.5951	0.5951
4	10-22-2021	1-21-2022	0.5849	0.5849
5	1-22-2022	4-21-2022	0.3978	0.3978
		Highest	0.9058	0.9058

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	0.3615	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492
Energy	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	164.5696	164.5696	5.6600e-003	1.9100e-003	165.2795
Mobile	0.1422	0.7491	1.9627	7.1600e-003	0.5923	5.9900e-003	0.5983	0.1588	5.5900e-003	0.1644	0.0000	661.8194	661.8194	0.0340	0.0000	662.6701
Waste						0.0000	0.0000		0.0000	0.0000	7.8679	0.0000	7.8679	0.4650	0.0000	19.4925
Water						0.0000	0.0000		0.0000	0.0000	1.7363	40.8667	42.6030	0.1800	4.5600e-003	48.4625
<b>Total</b>	<b>0.5089</b>	<b>0.8033</b>	<b>2.8487</b>	<b>7.4900e-003</b>	<b>0.5923</b>	<b>0.0144</b>	<b>0.6067</b>	<b>0.1588</b>	<b>0.0140</b>	<b>0.1727</b>	<b>9.6042</b>	<b>868.6708</b>	<b>878.2750</b>	<b>0.6861</b>	<b>6.4700e-003</b>	<b>897.3538</b>

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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	0.3615	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492
Energy	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	164.5696	164.5696	5.6600e-003	1.9100e-003	165.2795
Mobile	0.1422	0.7491	1.9627	7.1600e-003	0.5923	5.9900e-003	0.5983	0.1588	5.5900e-003	0.1644	0.0000	661.8194	661.8194	0.0340	0.0000	662.6701
Waste						0.0000	0.0000		0.0000	0.0000	7.8679	0.0000	7.8679	0.4650	0.0000	19.4925
Water						0.0000	0.0000		0.0000	0.0000	1.7363	40.8667	42.6030	0.1800	4.5600e-003	48.4625
<b>Total</b>	<b>0.5089</b>	<b>0.8033</b>	<b>2.8487</b>	<b>7.4900e-003</b>	<b>0.5923</b>	<b>0.0144</b>	<b>0.6067</b>	<b>0.1588</b>	<b>0.0140</b>	<b>0.1727</b>	<b>9.6042</b>	<b>868.6708</b>	<b>878.2750</b>	<b>0.6861</b>	<b>6.4700e-003</b>	<b>897.3538</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**



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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/22/2021	2/18/2021	5	20	
2	Site Preparation	Site Preparation	2/19/2021	2/25/2021	5	5	
3	Grading	Grading	2/26/2021	3/9/2021	5	8	
4	Building Construction	Building Construction	3/10/2021	1/25/2022	5	230	
5	Architectural Coating	Architectural Coating	2/19/2022	3/16/2022	5	18	
6	Paving	Paving	1/26/2022	2/18/2022	5	18	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 4.15**

**Acres of Paving: 1.43**

**Residential Indoor: 170,100; Residential Outdoor: 56,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,726 (Architectural Coating – sqft)**

**OffRoad Equipment**

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	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	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**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
Demolition	8	20.00	0.00	28.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	562.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	112.00	29.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

**3.1 Mitigation Measures Construction**

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 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					3.0000e-003	0.0000	3.0000e-003	4.5000e-004	0.0000	4.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0282	0.2702	0.2735	4.6000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	39.9690	39.9690	0.0115	0.0000	40.2565
<b>Total</b>	<b>0.0282</b>	<b>0.2702</b>	<b>0.2735</b>	<b>4.6000e-004</b>	<b>3.0000e-003</b>	<b>0.0135</b>	<b>0.0165</b>	<b>4.5000e-004</b>	<b>0.0126</b>	<b>0.0130</b>	<b>0.0000</b>	<b>39.9690</b>	<b>39.9690</b>	<b>0.0115</b>	<b>0.0000</b>	<b>40.2565</b>

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**3.2 Demolition - 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	1.2000e-004	3.8800e-003	9.0000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0672	1.0672	7.0000e-005	0.0000	1.0691
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	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
<b>Total</b>	<b>9.8000e-004</b>	<b>4.5500e-003</b>	<b>8.4600e-003</b>	<b>3.0000e-005</b>	<b>2.4300e-003</b>	<b>3.0000e-005</b>	<b>2.4600e-003</b>	<b>6.5000e-004</b>	<b>3.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>3.0450</b>	<b>3.0450</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0484</b>

**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					1.1700e-003	0.0000	1.1700e-003	1.8000e-004	0.0000	1.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0282	0.2702	0.2735	4.6000e-004		0.0135	0.0135		0.0126	0.0126	0.0000	39.9689	39.9689	0.0115	0.0000	40.2564
<b>Total</b>	<b>0.0282</b>	<b>0.2702</b>	<b>0.2735</b>	<b>4.6000e-004</b>	<b>1.1700e-003</b>	<b>0.0135</b>	<b>0.0147</b>	<b>1.8000e-004</b>	<b>0.0126</b>	<b>0.0127</b>	<b>0.0000</b>	<b>39.9689</b>	<b>39.9689</b>	<b>0.0115</b>	<b>0.0000</b>	<b>40.2564</b>

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**3.2 Demolition - 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	1.2000e-004	3.8800e-003	9.0000e-004	1.0000e-005	2.4000e-004	1.0000e-005	2.5000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0672	1.0672	7.0000e-005	0.0000	1.0691
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	8.6000e-004	6.7000e-004	7.5600e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	2.0000e-005	6.0000e-004	0.0000	1.9778	1.9778	6.0000e-005	0.0000	1.9793
<b>Total</b>	<b>9.8000e-004</b>	<b>4.5500e-003</b>	<b>8.4600e-003</b>	<b>3.0000e-005</b>	<b>2.4300e-003</b>	<b>3.0000e-005</b>	<b>2.4600e-003</b>	<b>6.5000e-004</b>	<b>3.0000e-005</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>3.0450</b>	<b>3.0450</b>	<b>1.3000e-004</b>	<b>0.0000</b>	<b>3.0484</b>

**3.3 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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1203	0.0479	1.1000e-004		5.5300e-003	5.5300e-003		5.0900e-003	5.0900e-003	0.0000	9.5356	9.5356	3.0800e-003	0.0000	9.6127
<b>Total</b>	<b>0.0111</b>	<b>0.1203</b>	<b>0.0479</b>	<b>1.1000e-004</b>	<b>0.0452</b>	<b>5.5300e-003</b>	<b>0.0507</b>	<b>0.0248</b>	<b>5.0900e-003</b>	<b>0.0299</b>	<b>0.0000</b>	<b>9.5356</b>	<b>9.5356</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>9.6127</b>

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**3.3 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	1.6000e-004	1.3000e-004	1.4200e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3708	0.3708	1.0000e-005	0.0000	0.3711
<b>Total</b>	<b>1.6000e-004</b>	<b>1.3000e-004</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3708</b>	<b>0.3708</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3711</b>

**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					0.0176	0.0000	0.0176	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1203	0.0479	1.1000e-004		5.5300e-003	5.5300e-003		5.0900e-003	5.0900e-003	0.0000	9.5356	9.5356	3.0800e-003	0.0000	9.6127
<b>Total</b>	<b>0.0111</b>	<b>0.1203</b>	<b>0.0479</b>	<b>1.1000e-004</b>	<b>0.0176</b>	<b>5.5300e-003</b>	<b>0.0231</b>	<b>9.6800e-003</b>	<b>5.0900e-003</b>	<b>0.0148</b>	<b>0.0000</b>	<b>9.5356</b>	<b>9.5356</b>	<b>3.0800e-003</b>	<b>0.0000</b>	<b>9.6127</b>

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**3.3 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	1.6000e-004	1.3000e-004	1.4200e-003	0.0000	4.1000e-004	0.0000	4.1000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3708	0.3708	1.0000e-005	0.0000	0.3711
<b>Total</b>	<b>1.6000e-004</b>	<b>1.3000e-004</b>	<b>1.4200e-003</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>0.0000</b>	<b>4.1000e-004</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>0.3708</b>	<b>0.3708</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.3711</b>

**3.4 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					0.0265	0.0000	0.0265	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4100e-003	0.0914	0.0544	1.1000e-004		4.1900e-003	4.1900e-003		3.8600e-003	3.8600e-003	0.0000	9.3296	9.3296	3.0200e-003	0.0000	9.4050
<b>Total</b>	<b>8.4100e-003</b>	<b>0.0914</b>	<b>0.0544</b>	<b>1.1000e-004</b>	<b>0.0265</b>	<b>4.1900e-003</b>	<b>0.0307</b>	<b>0.0135</b>	<b>3.8600e-003</b>	<b>0.0174</b>	<b>0.0000</b>	<b>9.3296</b>	<b>9.3296</b>	<b>3.0200e-003</b>	<b>0.0000</b>	<b>9.4050</b>

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**3.4 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	2.3700e-003	0.0778	0.0181	2.2000e-004	4.8300e-003	2.3000e-004	5.0600e-003	1.3300e-003	2.2000e-004	1.5500e-003	0.0000	21.4205	21.4205	1.4900e-003	0.0000	21.4577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5142	0.5142	2.0000e-005	0.0000	0.5146
<b>Total</b>	<b>2.5900e-003</b>	<b>0.0780</b>	<b>0.0201</b>	<b>2.3000e-004</b>	<b>5.4000e-003</b>	<b>2.3000e-004</b>	<b>5.6300e-003</b>	<b>1.4800e-003</b>	<b>2.2000e-004</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>21.9348</b>	<b>21.9348</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>21.9723</b>

**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					0.0104	0.0000	0.0104	5.2700e-003	0.0000	5.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4100e-003	0.0914	0.0544	1.1000e-004		4.1900e-003	4.1900e-003		3.8600e-003	3.8600e-003	0.0000	9.3296	9.3296	3.0200e-003	0.0000	9.4050
<b>Total</b>	<b>8.4100e-003</b>	<b>0.0914</b>	<b>0.0544</b>	<b>1.1000e-004</b>	<b>0.0104</b>	<b>4.1900e-003</b>	<b>0.0145</b>	<b>5.2700e-003</b>	<b>3.8600e-003</b>	<b>9.1300e-003</b>	<b>0.0000</b>	<b>9.3296</b>	<b>9.3296</b>	<b>3.0200e-003</b>	<b>0.0000</b>	<b>9.4050</b>



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**3.4 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	2.3700e-003	0.0778	0.0181	2.2000e-004	4.8300e-003	2.3000e-004	5.0600e-003	1.3300e-003	2.2000e-004	1.5500e-003	0.0000	21.4205	21.4205	1.4900e-003	0.0000	21.4577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.7000e-004	1.9700e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5142	0.5142	2.0000e-005	0.0000	0.5146
<b>Total</b>	<b>2.5900e-003</b>	<b>0.0780</b>	<b>0.0201</b>	<b>2.3000e-004</b>	<b>5.4000e-003</b>	<b>2.3000e-004</b>	<b>5.6300e-003</b>	<b>1.4800e-003</b>	<b>2.2000e-004</b>	<b>1.7100e-003</b>	<b>0.0000</b>	<b>21.9348</b>	<b>21.9348</b>	<b>1.5100e-003</b>	<b>0.0000</b>	<b>21.9723</b>

**3.5 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	0.1538	1.3776	1.2196	2.1300e-003		0.0724	0.0724		0.0686	0.0686	0.0000	181.5165	181.5165	0.0384	0.0000	182.4775
<b>Total</b>	<b>0.1538</b>	<b>1.3776</b>	<b>1.2196</b>	<b>2.1300e-003</b>		<b>0.0724</b>	<b>0.0724</b>		<b>0.0686</b>	<b>0.0686</b>	<b>0.0000</b>	<b>181.5165</b>	<b>181.5165</b>	<b>0.0384</b>	<b>0.0000</b>	<b>182.4775</b>

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**3.5 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	9.5900e-003	0.3048	0.0826	7.9000e-004	0.0195	6.2000e-004	0.0201	5.6100e-003	5.9000e-004	6.2100e-003	0.0000	76.1305	76.1305	4.6700e-003	0.0000	76.2472
Worker	0.0513	0.0400	0.4511	1.3100e-003	0.1307	1.0800e-003	0.1318	0.0347	9.9000e-004	0.0357	0.0000	117.9580	117.9580	3.4700e-003	0.0000	118.0448
<b>Total</b>	<b>0.0609</b>	<b>0.3448</b>	<b>0.5337</b>	<b>2.1000e-003</b>	<b>0.1502</b>	<b>1.7000e-003</b>	<b>0.1519</b>	<b>0.0403</b>	<b>1.5800e-003</b>	<b>0.0419</b>	<b>0.0000</b>	<b>194.0885</b>	<b>194.0885</b>	<b>8.1400e-003</b>	<b>0.0000</b>	<b>194.2920</b>

**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	0.1538	1.3776	1.2196	2.1300e-003		0.0724	0.0724		0.0686	0.0686	0.0000	181.5163	181.5163	0.0384	0.0000	182.4772
<b>Total</b>	<b>0.1538</b>	<b>1.3776</b>	<b>1.2196</b>	<b>2.1300e-003</b>		<b>0.0724</b>	<b>0.0724</b>		<b>0.0686</b>	<b>0.0686</b>	<b>0.0000</b>	<b>181.5163</b>	<b>181.5163</b>	<b>0.0384</b>	<b>0.0000</b>	<b>182.4772</b>

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**3.5 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	9.5900e-003	0.3048	0.0826	7.9000e-004	0.0195	6.2000e-004	0.0201	5.6100e-003	5.9000e-004	6.2100e-003	0.0000	76.1305	76.1305	4.6700e-003	0.0000	76.2472
Worker	0.0513	0.0400	0.4511	1.3100e-003	0.1307	1.0800e-003	0.1318	0.0347	9.9000e-004	0.0357	0.0000	117.9580	117.9580	3.4700e-003	0.0000	118.0448
<b>Total</b>	<b>0.0609</b>	<b>0.3448</b>	<b>0.5337</b>	<b>2.1000e-003</b>	<b>0.1502</b>	<b>1.7000e-003</b>	<b>0.1519</b>	<b>0.0403</b>	<b>1.5800e-003</b>	<b>0.0419</b>	<b>0.0000</b>	<b>194.0885</b>	<b>194.0885</b>	<b>8.1400e-003</b>	<b>0.0000</b>	<b>194.2920</b>

**3.5 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	0.0111	0.0988	0.0960	1.7000e-004		4.9400e-003	4.9400e-003		4.6900e-003	4.6900e-003	0.0000	14.4901	14.4901	3.0300e-003	0.0000	14.5660
<b>Total</b>	<b>0.0111</b>	<b>0.0988</b>	<b>0.0960</b>	<b>1.7000e-004</b>		<b>4.9400e-003</b>	<b>4.9400e-003</b>		<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>14.4901</b>	<b>14.4901</b>	<b>3.0300e-003</b>	<b>0.0000</b>	<b>14.5660</b>

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**3.5 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	7.2000e-004	0.0231	6.2400e-003	6.0000e-005	1.5500e-003	4.0000e-005	1.6000e-003	4.5000e-004	4.0000e-005	4.9000e-004	0.0000	6.0228	6.0228	3.6000e-004	0.0000	6.0318
Worker	3.8400e-003	2.8800e-003	0.0332	1.0000e-004	0.0104	8.0000e-005	0.0105	2.7700e-003	8.0000e-005	2.8500e-003	0.0000	9.0836	9.0836	2.5000e-004	0.0000	9.0898
<b>Total</b>	<b>4.5600e-003</b>	<b>0.0260</b>	<b>0.0394</b>	<b>1.6000e-004</b>	<b>0.0120</b>	<b>1.2000e-004</b>	<b>0.0121</b>	<b>3.2200e-003</b>	<b>1.2000e-004</b>	<b>3.3400e-003</b>	<b>0.0000</b>	<b>15.1063</b>	<b>15.1063</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>15.1216</b>

**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	0.0111	0.0988	0.0960	1.7000e-004		4.9400e-003	4.9400e-003		4.6900e-003	4.6900e-003	0.0000	14.4901	14.4901	3.0300e-003	0.0000	14.5660
<b>Total</b>	<b>0.0111</b>	<b>0.0988</b>	<b>0.0960</b>	<b>1.7000e-004</b>		<b>4.9400e-003</b>	<b>4.9400e-003</b>		<b>4.6900e-003</b>	<b>4.6900e-003</b>	<b>0.0000</b>	<b>14.4901</b>	<b>14.4901</b>	<b>3.0300e-003</b>	<b>0.0000</b>	<b>14.5660</b>

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**3.5 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	7.2000e-004	0.0231	6.2400e-003	6.0000e-005	1.5500e-003	4.0000e-005	1.6000e-003	4.5000e-004	4.0000e-005	4.9000e-004	0.0000	6.0228	6.0228	3.6000e-004	0.0000	6.0318
Worker	3.8400e-003	2.8800e-003	0.0332	1.0000e-004	0.0104	8.0000e-005	0.0105	2.7700e-003	8.0000e-005	2.8500e-003	0.0000	9.0836	9.0836	2.5000e-004	0.0000	9.0898
<b>Total</b>	<b>4.5600e-003</b>	<b>0.0260</b>	<b>0.0394</b>	<b>1.6000e-004</b>	<b>0.0120</b>	<b>1.2000e-004</b>	<b>0.0121</b>	<b>3.2200e-003</b>	<b>1.2000e-004</b>	<b>3.3400e-003</b>	<b>0.0000</b>	<b>15.1063</b>	<b>15.1063</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>15.1216</b>

**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	0.2714					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
<b>Total</b>	<b>0.2733</b>	<b>0.0127</b>	<b>0.0163</b>	<b>3.0000e-005</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.2979</b>	<b>2.2979</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.3017</b>

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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	8.0000e-004	6.0000e-004	6.9000e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1900e-003	5.8000e-004	2.0000e-005	5.9000e-004	0.0000	1.8892	1.8892	5.0000e-005	0.0000	1.8905
<b>Total</b>	<b>8.0000e-004</b>	<b>6.0000e-004</b>	<b>6.9000e-003</b>	<b>2.0000e-005</b>	<b>2.1700e-003</b>	<b>2.0000e-005</b>	<b>2.1900e-003</b>	<b>5.8000e-004</b>	<b>2.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>1.8892</b>	<b>1.8892</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.8905</b>

**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	0.2714					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0127	0.0163	3.0000e-005		7.4000e-004	7.4000e-004		7.4000e-004	7.4000e-004	0.0000	2.2979	2.2979	1.5000e-004	0.0000	2.3017
<b>Total</b>	<b>0.2733</b>	<b>0.0127</b>	<b>0.0163</b>	<b>3.0000e-005</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>		<b>7.4000e-004</b>	<b>7.4000e-004</b>	<b>0.0000</b>	<b>2.2979</b>	<b>2.2979</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.3017</b>

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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	8.0000e-004	6.0000e-004	6.9000e-003	2.0000e-005	2.1700e-003	2.0000e-005	2.1900e-003	5.8000e-004	2.0000e-005	5.9000e-004	0.0000	1.8892	1.8892	5.0000e-005	0.0000	1.8905
<b>Total</b>	<b>8.0000e-004</b>	<b>6.0000e-004</b>	<b>6.9000e-003</b>	<b>2.0000e-005</b>	<b>2.1700e-003</b>	<b>2.0000e-005</b>	<b>2.1900e-003</b>	<b>5.8000e-004</b>	<b>2.0000e-005</b>	<b>5.9000e-004</b>	<b>0.0000</b>	<b>1.8892</b>	<b>1.8892</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.8905</b>

**3.7 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	7.1900e-003	0.0715	0.0905	1.4000e-004		3.7200e-003	3.7200e-003		3.4300e-003	3.4300e-003	0.0000	12.0134	12.0134	3.8200e-003	0.0000	12.1089
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.0600e-003</b>	<b>0.0715</b>	<b>0.0905</b>	<b>1.4000e-004</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>	<b>0.0000</b>	<b>12.0134</b>	<b>12.0134</b>	<b>3.8200e-003</b>	<b>0.0000</b>	<b>12.1089</b>

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**3.7 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	5.4000e-004	4.1000e-004	4.7000e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2881	1.2881	4.0000e-005	0.0000	1.2890
<b>Total</b>	<b>5.4000e-004</b>	<b>4.1000e-004</b>	<b>4.7000e-003</b>	<b>1.0000e-005</b>	<b>1.4800e-003</b>	<b>1.0000e-005</b>	<b>1.4900e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2881</b>	<b>1.2881</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2890</b>

**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	7.1900e-003	0.0715	0.0905	1.4000e-004		3.7200e-003	3.7200e-003		3.4300e-003	3.4300e-003	0.0000	12.0134	12.0134	3.8200e-003	0.0000	12.1088
Paving	1.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>9.0600e-003</b>	<b>0.0715</b>	<b>0.0905</b>	<b>1.4000e-004</b>		<b>3.7200e-003</b>	<b>3.7200e-003</b>		<b>3.4300e-003</b>	<b>3.4300e-003</b>	<b>0.0000</b>	<b>12.0134</b>	<b>12.0134</b>	<b>3.8200e-003</b>	<b>0.0000</b>	<b>12.1088</b>



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**3.7 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	5.4000e-004	4.1000e-004	4.7000e-003	1.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2881	1.2881	4.0000e-005	0.0000	1.2890
<b>Total</b>	<b>5.4000e-004</b>	<b>4.1000e-004</b>	<b>4.7000e-003</b>	<b>1.0000e-005</b>	<b>1.4800e-003</b>	<b>1.0000e-005</b>	<b>1.4900e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-005</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.2881</b>	<b>1.2881</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2890</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

City of Gardena - Townhome - Los Angeles-South Coast 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	0.1422	0.7491	1.9627	7.1600e-003	0.5923	5.9900e-003	0.5983	0.1588	5.5900e-003	0.1644	0.0000	661.8194	661.8194	0.0340	0.0000	662.6701
Unmitigated	0.1422	0.7491	1.9627	7.1600e-003	0.5923	5.9900e-003	0.5983	0.1588	5.5900e-003	0.1644	0.0000	661.8194	661.8194	0.0340	0.0000	662.6701

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		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	456.96	456.96	456.96	1,560,557	1,560,557
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	456.96	456.96	456.96	1,560,557	1,560,557

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	14.70	5.90	8.70	40.00	19.00	41.00	86	11	3
Other Asphalt Surfaces	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	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse High Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Other Asphalt Surfaces	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.3453	113.3453	4.6800e-003	9.7000e-004	113.7508
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	113.3453	113.3453	4.6800e-003	9.7000e-004	113.7508
NaturalGas Mitigated	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.2243	51.2243	9.8000e-004	9.4000e-004	51.5287
NaturalGas Unmitigated	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.2243	51.2243	9.8000e-004	9.4000e-004	51.5287

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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 High Rise	959907	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.2243	51.2243	9.8000e-004	9.4000e-004	51.5287
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0442</b>	<b>0.0188</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.2243</b>	<b>51.2243</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.5287</b>

**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 High Rise	959907	5.1800e-003	0.0442	0.0188	2.8000e-004		3.5800e-003	3.5800e-003		3.5800e-003	3.5800e-003	0.0000	51.2243	51.2243	9.8000e-004	9.4000e-004	51.5287
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>5.1800e-003</b>	<b>0.0442</b>	<b>0.0188</b>	<b>2.8000e-004</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>		<b>3.5800e-003</b>	<b>3.5800e-003</b>	<b>0.0000</b>	<b>51.2243</b>	<b>51.2243</b>	<b>9.8000e-004</b>	<b>9.4000e-004</b>	<b>51.5287</b>

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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 High Rise	355737	113.3453	4.6800e-003	9.7000e-004	113.7508
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>113.3453</b>	<b>4.6800e-003</b>	<b>9.7000e-004</b>	<b>113.7508</b>

**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 High Rise	355737	113.3453	4.6800e-003	9.7000e-004	113.7508
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>113.3453</b>	<b>4.6800e-003</b>	<b>9.7000e-004</b>	<b>113.7508</b>

**6.0 Area Detail**

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**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	0.3615	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492
Unmitigated	0.3615	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492

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**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	0.0271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0262	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492
<b>Total</b>	<b>0.3615</b>	<b>0.0100</b>	<b>0.8672</b>	<b>5.0000e-005</b>		<b>4.7900e-003</b>	<b>4.7900e-003</b>		<b>4.7900e-003</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>1.4151</b>	<b>1.4151</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>1.4492</b>

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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	0.0271					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3081					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0262	0.0100	0.8672	5.0000e-005		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	1.4151	1.4151	1.3700e-003	0.0000	1.4492
<b>Total</b>	<b>0.3615</b>	<b>0.0100</b>	<b>0.8672</b>	<b>5.0000e-005</b>		<b>4.7900e-003</b>	<b>4.7900e-003</b>		<b>4.7900e-003</b>	<b>4.7900e-003</b>	<b>0.0000</b>	<b>1.4151</b>	<b>1.4151</b>	<b>1.3700e-003</b>	<b>0.0000</b>	<b>1.4492</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**



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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	42.6030	0.1800	4.5600e-003	48.4625
Unmitigated	42.6030	0.1800	4.5600e-003	48.4625

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.67999	5.9470	2.5000e-004	5.0000e-005	5.9682
Condo/Townhouse High Rise	5.47294 / 3.45033	36.6560	0.1798	4.5100e-003	42.4942
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>42.6030</b>	<b>0.1800</b>	<b>4.5600e-003</b>	<b>48.4625</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.67999	5.9470	2.5000e-004	5.0000e-005	5.9682
Condo/Townhouse High Rise	5.47294 / 3.45033	36.6560	0.1798	4.5100e-003	42.4942
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>42.6030</b>	<b>0.1800</b>	<b>4.5600e-003</b>	<b>48.4625</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

City of Gardena - Townhome - Los Angeles-South Coast County, Annual

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.8679	0.4650	0.0000	19.4925
Unmitigated	7.8679	0.4650	0.0000	19.4925

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.12	0.0244	1.4400e-003	0.0000	0.0604
Condo/Townhouse High Rise	38.64	7.8436	0.4635	0.0000	19.4321
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>7.8679</b>	<b>0.4650</b>	<b>0.0000</b>	<b>19.4925</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Annual

**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.12	0.0244	1.4400e-003	0.0000	0.0604
Condo/Townhouse High Rise	38.64	7.8436	0.4635	0.0000	19.4321
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>7.8679</b>	<b>0.4650</b>	<b>0.0000</b>	<b>19.4925</b>

**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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City of Gardena - Townhome - Los Angeles-South Coast County, Annual

## **11.0 Vegetation**

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City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**City of Gardena - Townhome**  
**Los Angeles-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.43	Acre	1.43	62,107.85	0
City Park	1.16	Acre	1.16	50,706.00	0
City Park	0.25	Acre	0.25	10,758.00	0
Condo/Townhouse High Rise	84.00	Dwelling Unit	1.39	84,000.00	240

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	8			<b>Operational Year</b>	2022
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - 84 3-story condos (approx. 1.3942 bldg footprint). Approx. 50,706 sf of open space w/in common open space areas (1.1641 acres); Approx. 0.2469697 sf of landscaping. Remaining area for asphalt surface (1.4258 acres). 4.23 acres total.

Construction Phase - Overall construction schedule as provided by project applicant.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Trips and VMT - Default values used for construction phase trips.

Demolition - Demolition of a total of 6,100 sf (as provided by project applicant). Includes Motel, approx. 3100 SF, Nursery retail building, approx. 3000 SF. In addition, an approximate 4800 SF greenhouse structure will be demolished.

Grading - Assume entire site (4.15 acres) is graded. Import of 4500 CY of soil (as provided by project applicant).

Vehicle Trips - 5.44 trips per dwelling unit, as provided by the Traffic Study prepared by Kittelson & Associates, Inc. (June 2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Woodstoves - Per SCAQMD Rule 445; No Woodstoves or wood fireplaces. No hearths.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

tblFireplaces	NumberGas	71.40	0.00
tblFireplaces	NumberNoFireplace	8.40	0.00
tblFireplaces	NumberWood	4.20	0.00
tblGrading	AcresOfGrading	4.00	4.15
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	4,500.00
tblLandUse	LandUseSquareFeet	62,290.80	62,107.85
tblLandUse	LandUseSquareFeet	10,890.00	10,758.00
tblLandUse	LandUseSquareFeet	50,529.60	50,706.00
tblLandUse	LotAcreage	1.31	1.39
tblOffRoadEquipment	HorsePower	97.00	158.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblTripsAndVMT	HaulingTripNumber	563.00	562.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	22.75	0.00



## City of Gardena - Townhome - Los Angeles-South Coast County, Summer

tblVehicleTrips	ST_TR	4.31	5.44
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	5.44
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	5.44
tblWoodstoves	NumberCatalytic	4.20	0.00
tblWoodstoves	NumberNoncatalytic	4.20	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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City of Gardena - Townhome - Los Angeles-South Coast 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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Energy	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Mobile	0.8238	3.9437	11.2165	0.0408	3.3184	0.0329	3.3513	0.8881	0.0307	0.9188		4,152.8403	4,152.8403	0.2076		4,158.0310
<b>Total</b>	<b>2.8988</b>	<b>4.2660</b>	<b>18.2575</b>	<b>0.0427</b>	<b>3.3184</b>	<b>0.0908</b>	<b>3.4093</b>	<b>0.8881</b>	<b>0.0886</b>	<b>0.9767</b>	<b>0.0000</b>	<b>4,474.7171</b>	<b>4,474.7171</b>	<b>0.2256</b>	<b>5.6700e-003</b>	<b>4,482.0474</b>

**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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Energy	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Mobile	0.8238	3.9437	11.2165	0.0408	3.3184	0.0329	3.3513	0.8881	0.0307	0.9188		4,152.8403	4,152.8403	0.2076		4,158.0310
<b>Total</b>	<b>2.8988</b>	<b>4.2660</b>	<b>18.2575</b>	<b>0.0427</b>	<b>3.3184</b>	<b>0.0908</b>	<b>3.4093</b>	<b>0.8881</b>	<b>0.0886</b>	<b>0.9767</b>	<b>0.0000</b>	<b>4,474.7171</b>	<b>4,474.7171</b>	<b>0.2256</b>	<b>5.6700e-003</b>	<b>4,482.0474</b>

City of Gardena - Townhome - Los Angeles-South Coast 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/22/2021	2/18/2021	5	20	
2	Site Preparation	Site Preparation	2/19/2021	2/25/2021	5	5	
3	Grading	Grading	2/26/2021	3/9/2021	5	8	
4	Building Construction	Building Construction	3/10/2021	1/25/2022	5	230	
5	Architectural Coating	Architectural Coating	2/19/2022	3/16/2022	5	18	
6	Paving	Paving	1/26/2022	2/18/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.15

Acres of Paving: 1.43

Residential Indoor: 170,100; Residential Outdoor: 56,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,726 (Architectural Coating – sqft)

#### OffRoad Equipment

## City of Gardena - Townhome - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	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	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

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
Demolition	8	20.00	0.00	28.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	562.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	112.00	29.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

**3.1 Mitigation Measures Construction**

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 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					0.3002	0.0000	0.3002	0.0455	0.0000	0.0455			0.0000			0.0000
Off-Road	2.8208	27.0206	27.3457	0.0456		1.3496	1.3496		1.2555	1.2555		4,405.8248	4,405.8248	1.2677		4,437.5165
<b>Total</b>	<b>2.8208</b>	<b>27.0206</b>	<b>27.3457</b>	<b>0.0456</b>	<b>0.3002</b>	<b>1.3496</b>	<b>1.6498</b>	<b>0.0455</b>	<b>1.2555</b>	<b>1.3009</b>		<b>4,405.8248</b>	<b>4,405.8248</b>	<b>1.2677</b>		<b>4,437.5165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.2 Demolition - 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	0.0117	0.3755	0.0881	1.0900e-003	0.0245	1.1500e-003	0.0256	6.7100e-003	1.1000e-003	7.8100e-003		118.5025	118.5025	8.0400e-003		118.7035
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	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0974</b>	<b>0.4345</b>	<b>0.8936</b>	<b>3.3800e-003</b>	<b>0.2480</b>	<b>2.9600e-003</b>	<b>0.2510</b>	<b>0.0660</b>	<b>2.7600e-003</b>	<b>0.0688</b>		<b>346.2565</b>	<b>346.2565</b>	<b>0.0148</b>		<b>346.6253</b>

**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					0.1171	0.0000	0.1171	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	2.8208	27.0206	27.3457	0.0456		1.3496	1.3496		1.2555	1.2555	0.0000	4,405.8248	4,405.8248	1.2677		4,437.5165
<b>Total</b>	<b>2.8208</b>	<b>27.0206</b>	<b>27.3457</b>	<b>0.0456</b>	<b>0.1171</b>	<b>1.3496</b>	<b>1.4667</b>	<b>0.0177</b>	<b>1.2555</b>	<b>1.2732</b>	<b>0.0000</b>	<b>4,405.8248</b>	<b>4,405.8248</b>	<b>1.2677</b>		<b>4,437.5165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.2 Demolition - 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	0.0117	0.3755	0.0881	1.0900e-003	0.0245	1.1500e-003	0.0256	6.7100e-003	1.1000e-003	7.8100e-003		118.5025	118.5025	8.0400e-003		118.7035
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	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0974</b>	<b>0.4345</b>	<b>0.8936</b>	<b>3.3800e-003</b>	<b>0.2480</b>	<b>2.9600e-003</b>	<b>0.2510</b>	<b>0.0660</b>	<b>2.7600e-003</b>	<b>0.0688</b>		<b>346.2565</b>	<b>346.2565</b>	<b>0.0148</b>		<b>346.6253</b>

**3.3 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	4.4366	48.1070	19.1407	0.0434		2.2124	2.2124		2.0354	2.0354		4,204.4958	4,204.4958	1.3598		4,238.4913
<b>Total</b>	<b>4.4366</b>	<b>48.1070</b>	<b>19.1407</b>	<b>0.0434</b>	<b>18.0663</b>	<b>2.2124</b>	<b>20.2787</b>	<b>9.9307</b>	<b>2.0354</b>	<b>11.9661</b>		<b>4,204.4958</b>	<b>4,204.4958</b>	<b>1.3598</b>		<b>4,238.4913</b>



City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.3 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	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	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.0643</b>	<b>0.0442</b>	<b>0.6042</b>	<b>1.7100e-003</b>	<b>0.1677</b>	<b>1.3500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2500e-003</b>	<b>0.0457</b>		<b>170.8155</b>	<b>170.8155</b>	<b>5.0300e-003</b>		<b>170.9413</b>

**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	4.4366	48.1070	19.1407	0.0434		2.2124	2.2124		2.0354	2.0354	0.0000	4,204.4958	4,204.4958	1.3598		4,238.4913
<b>Total</b>	<b>4.4366</b>	<b>48.1070</b>	<b>19.1407</b>	<b>0.0434</b>	<b>7.0458</b>	<b>2.2124</b>	<b>9.2583</b>	<b>3.8730</b>	<b>2.0354</b>	<b>5.9084</b>	<b>0.0000</b>	<b>4,204.4958</b>	<b>4,204.4958</b>	<b>1.3598</b>		<b>4,238.4913</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.3 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	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	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.0643</b>	<b>0.0442</b>	<b>0.6042</b>	<b>1.7100e-003</b>	<b>0.1677</b>	<b>1.3500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2500e-003</b>	<b>0.0457</b>		<b>170.8155</b>	<b>170.8155</b>	<b>5.0300e-003</b>		<b>170.9413</b>

**3.4 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					6.6358	0.0000	6.6358	3.3793	0.0000	3.3793			0.0000			0.0000
Off-Road	2.1031	22.8409	13.5972	0.0265		1.0481	1.0481		0.9643	0.9643		2,571.0284	2,571.0284	0.8315		2,591.8165
<b>Total</b>	<b>2.1031</b>	<b>22.8409</b>	<b>13.5972</b>	<b>0.0265</b>	<b>6.6358</b>	<b>1.0481</b>	<b>7.6840</b>	<b>3.3793</b>	<b>0.9643</b>	<b>4.3436</b>		<b>2,571.0284</b>	<b>2,571.0284</b>	<b>0.8315</b>		<b>2,591.8165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.4 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	0.5857	18.8441	4.4184	0.0548	1.2284	0.0578	1.2862	0.3367	0.0553	0.3921		5,946.2851	5,946.2851	0.4035		5,956.3735
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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
<b>Total</b>	<b>0.6415</b>	<b>18.8824</b>	<b>4.9420</b>	<b>0.0563</b>	<b>1.3737</b>	<b>0.0590</b>	<b>1.4327</b>	<b>0.3753</b>	<b>0.0564</b>	<b>0.4317</b>		<b>6,094.3251</b>	<b>6,094.3251</b>	<b>0.4079</b>		<b>6,104.5226</b>

**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					2.5880	0.0000	2.5880	1.3179	0.0000	1.3179			0.0000			0.0000
Off-Road	2.1031	22.8409	13.5972	0.0265		1.0481	1.0481		0.9643	0.9643	0.0000	2,571.0284	2,571.0284	0.8315		2,591.8165
<b>Total</b>	<b>2.1031</b>	<b>22.8409</b>	<b>13.5972</b>	<b>0.0265</b>	<b>2.5880</b>	<b>1.0481</b>	<b>3.6361</b>	<b>1.3179</b>	<b>0.9643</b>	<b>2.2822</b>	<b>0.0000</b>	<b>2,571.0284</b>	<b>2,571.0284</b>	<b>0.8315</b>		<b>2,591.8165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.4 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	0.5857	18.8441	4.4184	0.0548	1.2284	0.0578	1.2862	0.3367	0.0553	0.3921		5,946.2851	5,946.2851	0.4035		5,956.3735
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	0.0557	0.0383	0.5236	1.4900e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		148.0401	148.0401	4.3600e-003		148.1491
<b>Total</b>	<b>0.6415</b>	<b>18.8824</b>	<b>4.9420</b>	<b>0.0563</b>	<b>1.3737</b>	<b>0.0590</b>	<b>1.4327</b>	<b>0.3753</b>	<b>0.0564</b>	<b>0.4317</b>		<b>6,094.3251</b>	<b>6,094.3251</b>	<b>0.4079</b>		<b>6,104.5226</b>

**3.5 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	1.4439	12.9353	11.4519	0.0200		0.6793	0.6793		0.6443	0.6443		1,878.7579	1,878.7579	0.3978		1,888.7038
<b>Total</b>	<b>1.4439</b>	<b>12.9353</b>	<b>11.4519</b>	<b>0.0200</b>		<b>0.6793</b>	<b>0.6793</b>		<b>0.6443</b>	<b>0.6443</b>		<b>1,878.7579</b>	<b>1,878.7579</b>	<b>0.3978</b>		<b>1,888.7038</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.5 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	0.0882	2.8156	0.7361	7.4600e-003	0.1857	5.7600e-003	0.1914	0.0535	5.5100e-003	0.0590		797.1538	797.1538	0.0470		798.3279
Worker	0.4801	0.3300	4.5111	0.0128	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,275.4222	1,275.4222	0.0376		1,276.3617
<b>Total</b>	<b>0.5682</b>	<b>3.1456</b>	<b>5.2471</b>	<b>0.0203</b>	<b>1.4376</b>	<b>0.0159</b>	<b>1.4534</b>	<b>0.3855</b>	<b>0.0148</b>	<b>0.4003</b>		<b>2,072.5761</b>	<b>2,072.5761</b>	<b>0.0845</b>		<b>2,074.6896</b>

**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	1.4439	12.9353	11.4519	0.0200		0.6793	0.6793		0.6443	0.6443	0.0000	1,878.7579	1,878.7579	0.3978		1,888.7038
<b>Total</b>	<b>1.4439</b>	<b>12.9353</b>	<b>11.4519</b>	<b>0.0200</b>		<b>0.6793</b>	<b>0.6793</b>		<b>0.6443</b>	<b>0.6443</b>	<b>0.0000</b>	<b>1,878.7579</b>	<b>1,878.7579</b>	<b>0.3978</b>		<b>1,888.7038</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.5 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	0.0882	2.8156	0.7361	7.4600e-003	0.1857	5.7600e-003	0.1914	0.0535	5.5100e-003	0.0590		797.1538	797.1538	0.0470		798.3279
Worker	0.4801	0.3300	4.5111	0.0128	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,275.4222	1,275.4222	0.0376		1,276.3617
<b>Total</b>	<b>0.5682</b>	<b>3.1456</b>	<b>5.2471</b>	<b>0.0203</b>	<b>1.4376</b>	<b>0.0159</b>	<b>1.4534</b>	<b>0.3855</b>	<b>0.0148</b>	<b>0.4003</b>		<b>2,072.5761</b>	<b>2,072.5761</b>	<b>0.0845</b>		<b>2,074.6896</b>

**3.5 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	1.3044	11.6284	11.2933	0.0200		0.5814	0.5814		0.5518	0.5518		1,879.1346	1,879.1346	0.3936		1,888.9739
<b>Total</b>	<b>1.3044</b>	<b>11.6284</b>	<b>11.2933</b>	<b>0.0200</b>		<b>0.5814</b>	<b>0.5814</b>		<b>0.5518</b>	<b>0.5518</b>		<b>1,879.1346</b>	<b>1,879.1346</b>	<b>0.3936</b>		<b>1,888.9739</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.5 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	0.0827	2.6776	0.6964	7.3900e-003	0.1857	5.0300e-003	0.1907	0.0535	4.8100e-003	0.0583		790.2091	790.2091	0.0454		791.3428
Worker	0.4497	0.2981	4.1620	0.0124	1.2519	9.8000e-003	1.2617	0.3320	9.0300e-003	0.3410		1,230.5578	1,230.5578	0.0340		1,231.4069
<b>Total</b>	<b>0.5324</b>	<b>2.9757</b>	<b>4.8584</b>	<b>0.0197</b>	<b>1.4376</b>	<b>0.0148</b>	<b>1.4524</b>	<b>0.3855</b>	<b>0.0138</b>	<b>0.3993</b>		<b>2,020.7669</b>	<b>2,020.7669</b>	<b>0.0793</b>		<b>2,022.7496</b>

**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	1.3044	11.6284	11.2933	0.0200		0.5814	0.5814		0.5518	0.5518	0.0000	1,879.1346	1,879.1346	0.3936		1,888.9739
<b>Total</b>	<b>1.3044</b>	<b>11.6284</b>	<b>11.2933</b>	<b>0.0200</b>		<b>0.5814</b>	<b>0.5814</b>		<b>0.5518</b>	<b>0.5518</b>	<b>0.0000</b>	<b>1,879.1346</b>	<b>1,879.1346</b>	<b>0.3936</b>		<b>1,888.9739</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.5 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	0.0827	2.6776	0.6964	7.3900e-003	0.1857	5.0300e-003	0.1907	0.0535	4.8100e-003	0.0583		790.2091	790.2091	0.0454		791.3428
Worker	0.4497	0.2981	4.1620	0.0124	1.2519	9.8000e-003	1.2617	0.3320	9.0300e-003	0.3410		1,230.5578	1,230.5578	0.0340		1,231.4069
<b>Total</b>	<b>0.5324</b>	<b>2.9757</b>	<b>4.8584</b>	<b>0.0197</b>	<b>1.4376</b>	<b>0.0148</b>	<b>1.4524</b>	<b>0.3855</b>	<b>0.0138</b>	<b>0.3993</b>		<b>2,020.7669</b>	<b>2,020.7669</b>	<b>0.0793</b>		<b>2,022.7496</b>

**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	30.1600					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
<b>Total</b>	<b>30.3645</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>



City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**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	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	0.0883	0.0586	0.8175	2.4300e-003	0.2459	1.9200e-003	0.2478	0.0652	1.7700e-003	0.0670		241.7167	241.7167	6.6700e-003		241.8835
<b>Total</b>	<b>0.0883</b>	<b>0.0586</b>	<b>0.8175</b>	<b>2.4300e-003</b>	<b>0.2459</b>	<b>1.9200e-003</b>	<b>0.2478</b>	<b>0.0652</b>	<b>1.7700e-003</b>	<b>0.0670</b>		<b>241.7167</b>	<b>241.7167</b>	<b>6.6700e-003</b>		<b>241.8835</b>

**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	30.1600					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
<b>Total</b>	<b>30.3645</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**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	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	0.0883	0.0586	0.8175	2.4300e-003	0.2459	1.9200e-003	0.2478	0.0652	1.7700e-003	0.0670		241.7167	241.7167	6.6700e-003		241.8835
<b>Total</b>	<b>0.0883</b>	<b>0.0586</b>	<b>0.8175</b>	<b>2.4300e-003</b>	<b>0.2459</b>	<b>1.9200e-003</b>	<b>0.2478</b>	<b>0.0652</b>	<b>1.7700e-003</b>	<b>0.0670</b>		<b>241.7167</b>	<b>241.7167</b>	<b>6.6700e-003</b>		<b>241.8835</b>

**3.7 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	0.7988	7.9428	10.0532	0.0153		0.4133	0.4133		0.3811	0.3811		1,471.3911	1,471.3911	0.4676		1,483.0801
Paving	0.2081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0069</b>	<b>7.9428</b>	<b>10.0532</b>	<b>0.0153</b>		<b>0.4133</b>	<b>0.4133</b>		<b>0.3811</b>	<b>0.3811</b>		<b>1,471.3911</b>	<b>1,471.3911</b>	<b>0.4676</b>		<b>1,483.0801</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.7 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	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	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**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	0.7988	7.9428	10.0532	0.0153		0.4133	0.4133		0.3811	0.3811	0.0000	1,471.3911	1,471.3911	0.4676		1,483.0801
Paving	0.2081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0069</b>	<b>7.9428</b>	<b>10.0532</b>	<b>0.0153</b>		<b>0.4133</b>	<b>0.4133</b>		<b>0.3811</b>	<b>0.3811</b>	<b>0.0000</b>	<b>1,471.3911</b>	<b>1,471.3911</b>	<b>0.4676</b>		<b>1,483.0801</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**3.7 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	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	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
<b>Total</b>	<b>0.0602</b>	<b>0.0399</b>	<b>0.5574</b>	<b>1.6500e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>164.8069</b>	<b>164.8069</b>	<b>4.5500e-003</b>		<b>164.9206</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

City of Gardena - Townhome - Los Angeles-South Coast 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	0.8238	3.9437	11.2165	0.0408	3.3184	0.0329	3.3513	0.8881	0.0307	0.9188		4,152.8403	4,152.8403	0.2076		4,158.0310
Unmitigated	0.8238	3.9437	11.2165	0.0408	3.3184	0.0329	3.3513	0.8881	0.0307	0.9188		4,152.8403	4,152.8403	0.2076		4,158.0310

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		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	456.96	456.96	456.96	1,560,557	1,560,557
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	456.96	456.96	456.96	1,560,557	1,560,557

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	14.70	5.90	8.70	40.00	19.00	41.00	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse High Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Other Asphalt Surfaces	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
NaturalGas Unmitigated	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas 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 High Rise	2629.88	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0284</b>	<b>0.2424</b>	<b>0.1031</b>	<b>1.5500e-003</b>		<b>0.0196</b>	<b>0.0196</b>		<b>0.0196</b>	<b>0.0196</b>		<b>309.3978</b>	<b>309.3978</b>	<b>5.9300e-003</b>	<b>5.6700e-003</b>	<b>311.2364</b>

**Mitigated**

	Natural Gas 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 High Rise	2.62988	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0284</b>	<b>0.2424</b>	<b>0.1031</b>	<b>1.5500e-003</b>		<b>0.0196</b>	<b>0.0196</b>		<b>0.0196</b>	<b>0.0196</b>		<b>309.3978</b>	<b>309.3978</b>	<b>5.9300e-003</b>	<b>5.6700e-003</b>	<b>311.2364</b>

**6.0 Area Detail**

City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Unmitigated	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800



City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**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	0.1487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2096	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383		12.4790	12.4790	0.0120		12.7800
<b>Total</b>	<b>2.0467</b>	<b>0.0800</b>	<b>6.9379</b>	<b>3.7000e-004</b>		<b>0.0383</b>	<b>0.0383</b>		<b>0.0383</b>	<b>0.0383</b>	<b>0.0000</b>	<b>12.4790</b>	<b>12.4790</b>	<b>0.0120</b>	<b>0.0000</b>	<b>12.7800</b>

City of Gardena - Townhome - Los Angeles-South Coast 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	0.1487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2096	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383		12.4790	12.4790	0.0120		12.7800
<b>Total</b>	<b>2.0467</b>	<b>0.0800</b>	<b>6.9379</b>	<b>3.7000e-004</b>		<b>0.0383</b>	<b>0.0383</b>		<b>0.0383</b>	<b>0.0383</b>	<b>0.0000</b>	<b>12.4790</b>	<b>12.4790</b>	<b>0.0120</b>	<b>0.0000</b>	<b>12.7800</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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

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City of Gardena - Townhome - Los Angeles-South Coast County, Summer

**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**

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City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**City of Gardena - Townhome**  
**Los Angeles-South Coast County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	1.43	Acre	1.43	62,107.85	0
City Park	1.16	Acre	1.16	50,706.00	0
City Park	0.25	Acre	0.25	10,758.00	0
Condo/Townhouse High Rise	84.00	Dwelling Unit	1.39	84,000.00	240

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	8			<b>Operational Year</b>	2022
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - 84 3-story condos (approx. 1.3942 bldg footprint). Approx. 50,706 sf of open space w/in common open space areas (1.1641 acres); Approx. 0.2469697 sf of landscaping. Remaining area for asphalt surface (1.4258 acres). 4.23 acres total.

Construction Phase - Overall construction schedule as provided by project applicant.

Off-road Equipment -

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Off-road Equipment - Project construction equipment provided by project applicant.

Trips and VMT - Default values used for construction phase trips.

Demolition - Demolition of a total of 6,100 sf (as provided by project applicant). Includes Motel, approx. 3100 SF, Nursery retail building, approx. 3000 SF. In addition, an approximate 4800 SF greenhouse structure will be demolished.

Grading - Assume entire site (4.15 acres) is graded. Import of 4500 CY of soil (as provided by project applicant).

Vehicle Trips - 5.44 trips per dwelling unit, as provided by the Traffic Study prepared by Kittelson & Associates, Inc. (June 2020)

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Construction Off-road Equipment Mitigation - Reductions include: Water Exposed Area 3 times daily; Unpaved Road Mitigation (Moisture Content at 12%; Vehicle Speed 15 MPH).

Woodstoves - Per SCAQMD Rule 445; No Woodstoves or wood fireplaces. No hearths.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00

## City of Gardena - Townhome - Los Angeles-South Coast County, Winter

tblFireplaces	NumberGas	71.40	0.00
tblFireplaces	NumberNoFireplace	8.40	0.00
tblFireplaces	NumberWood	4.20	0.00
tblGrading	AcresOfGrading	4.00	4.15
tblGrading	AcresOfGrading	7.50	0.00
tblGrading	MaterialImported	0.00	4,500.00
tblLandUse	LandUseSquareFeet	62,290.80	62,107.85
tblLandUse	LandUseSquareFeet	10,890.00	10,758.00
tblLandUse	LandUseSquareFeet	50,529.60	50,706.00
tblLandUse	LotAcreage	1.31	1.39
tblOffRoadEquipment	HorsePower	97.00	158.00
tblOffRoadEquipment	HorsePower	367.00	247.00
tblOffRoadEquipment	LoadFactor	0.37	0.38
tblOffRoadEquipment	LoadFactor	0.48	0.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblTripsAndVMT	HaulingTripNumber	563.00	562.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	ST_TR	22.75	0.00

## City of Gardena - Townhome - Los Angeles-South Coast County, Winter

tblVehicleTrips	ST_TR	4.31	5.44
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	5.44
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	5.44
tblWoodstoves	NumberCatalytic	4.20	0.00
tblWoodstoves	NumberNoncatalytic	4.20	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

## 2.0 Emissions Summary

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City of Gardena - Townhome - Los Angeles-South Coast 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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Energy	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Mobile	0.7995	4.0405	10.6272	0.0388	3.3184	0.0331	3.3515	0.8881	0.0308	0.9189		3,953.0644	3,953.0644	0.2069		3,958.2371
<b>Total</b>	<b>2.8746</b>	<b>4.3629</b>	<b>17.6682</b>	<b>0.0407</b>	<b>3.3184</b>	<b>0.0910</b>	<b>3.4094</b>	<b>0.8881</b>	<b>0.0888</b>	<b>0.9768</b>	<b>0.0000</b>	<b>4,274.9412</b>	<b>4,274.9412</b>	<b>0.2249</b>	<b>5.6700e-003</b>	<b>4,282.2535</b>

**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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Energy	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Mobile	0.7995	4.0405	10.6272	0.0388	3.3184	0.0331	3.3515	0.8881	0.0308	0.9189		3,953.0644	3,953.0644	0.2069		3,958.2371
<b>Total</b>	<b>2.8746</b>	<b>4.3629</b>	<b>17.6682</b>	<b>0.0407</b>	<b>3.3184</b>	<b>0.0910</b>	<b>3.4094</b>	<b>0.8881</b>	<b>0.0888</b>	<b>0.9768</b>	<b>0.0000</b>	<b>4,274.9412</b>	<b>4,274.9412</b>	<b>0.2249</b>	<b>5.6700e-003</b>	<b>4,282.2535</b>

City of Gardena - Townhome - Los Angeles-South Coast 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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/22/2021	2/18/2021	5	20	
2	Site Preparation	Site Preparation	2/19/2021	2/25/2021	5	5	
3	Grading	Grading	2/26/2021	3/9/2021	5	8	
4	Building Construction	Building Construction	3/10/2021	1/25/2022	5	230	
5	Architectural Coating	Architectural Coating	2/19/2022	3/16/2022	5	18	
6	Paving	Paving	1/26/2022	2/18/2022	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4.15

Acres of Paving: 1.43

Residential Indoor: 170,100; Residential Outdoor: 56,700; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 3,726 (Architectural Coating – sqft)

#### OffRoad Equipment

## City of Gardena - Townhome - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Scrapers	1	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	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	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

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
Demolition	8	20.00	0.00	28.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	562.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	112.00	29.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	22.00	0.00	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

**3.1 Mitigation Measures Construction**

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 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					0.3002	0.0000	0.3002	0.0455	0.0000	0.0455			0.0000			0.0000
Off-Road	2.8208	27.0206	27.3457	0.0456		1.3496	1.3496		1.2555	1.2555		4,405.8248	4,405.8248	1.2677		4,437.5165
<b>Total</b>	<b>2.8208</b>	<b>27.0206</b>	<b>27.3457</b>	<b>0.0456</b>	<b>0.3002</b>	<b>1.3496</b>	<b>1.6498</b>	<b>0.0455</b>	<b>1.2555</b>	<b>1.3009</b>		<b>4,405.8248</b>	<b>4,405.8248</b>	<b>1.2677</b>		<b>4,437.5165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.2 Demolition - 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	0.0120	0.3801	0.0934	1.0700e-003	0.0245	1.1700e-003	0.0257	6.7100e-003	1.1200e-003	7.8300e-003		116.4496	116.4496	8.3300e-003		116.6578
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	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.1073</b>	<b>0.4454</b>	<b>0.8299</b>	<b>3.2200e-003</b>	<b>0.2480</b>	<b>2.9800e-003</b>	<b>0.2510</b>	<b>0.0660</b>	<b>2.7800e-003</b>	<b>0.0688</b>		<b>330.8999</b>	<b>330.8999</b>	<b>0.0146</b>		<b>331.2658</b>

**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					0.1171	0.0000	0.1171	0.0177	0.0000	0.0177			0.0000			0.0000
Off-Road	2.8208	27.0206	27.3457	0.0456		1.3496	1.3496		1.2555	1.2555	0.0000	4,405.8248	4,405.8248	1.2677		4,437.5165
<b>Total</b>	<b>2.8208</b>	<b>27.0206</b>	<b>27.3457</b>	<b>0.0456</b>	<b>0.1171</b>	<b>1.3496</b>	<b>1.4667</b>	<b>0.0177</b>	<b>1.2555</b>	<b>1.2732</b>	<b>0.0000</b>	<b>4,405.8248</b>	<b>4,405.8248</b>	<b>1.2677</b>		<b>4,437.5165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.2 Demolition - 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	0.0120	0.3801	0.0934	1.0700e-003	0.0245	1.1700e-003	0.0257	6.7100e-003	1.1200e-003	7.8300e-003		116.4496	116.4496	8.3300e-003		116.6578
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	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.1073</b>	<b>0.4454</b>	<b>0.8299</b>	<b>3.2200e-003</b>	<b>0.2480</b>	<b>2.9800e-003</b>	<b>0.2510</b>	<b>0.0660</b>	<b>2.7800e-003</b>	<b>0.0688</b>		<b>330.8999</b>	<b>330.8999</b>	<b>0.0146</b>		<b>331.2658</b>

**3.3 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	4.4366	48.1070	19.1407	0.0434		2.2124	2.2124		2.0354	2.0354		4,204.4958	4,204.4958	1.3598		4,238.4913
<b>Total</b>	<b>4.4366</b>	<b>48.1070</b>	<b>19.1407</b>	<b>0.0434</b>	<b>18.0663</b>	<b>2.2124</b>	<b>20.2787</b>	<b>9.9307</b>	<b>2.0354</b>	<b>11.9661</b>		<b>4,204.4958</b>	<b>4,204.4958</b>	<b>1.3598</b>		<b>4,238.4913</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.3 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	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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
<b>Total</b>	<b>0.0715</b>	<b>0.0489</b>	<b>0.5524</b>	<b>1.6100e-003</b>	<b>0.1677</b>	<b>1.3500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2500e-003</b>	<b>0.0457</b>		<b>160.8377</b>	<b>160.8377</b>	<b>4.7300e-003</b>		<b>160.9560</b>

**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	4.4366	48.1070	19.1407	0.0434		2.2124	2.2124		2.0354	2.0354	0.0000	4,204.4958	4,204.4958	1.3598		4,238.4913
<b>Total</b>	<b>4.4366</b>	<b>48.1070</b>	<b>19.1407</b>	<b>0.0434</b>	<b>7.0458</b>	<b>2.2124</b>	<b>9.2583</b>	<b>3.8730</b>	<b>2.0354</b>	<b>5.9084</b>	<b>0.0000</b>	<b>4,204.4958</b>	<b>4,204.4958</b>	<b>1.3598</b>		<b>4,238.4913</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.3 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	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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
<b>Total</b>	<b>0.0715</b>	<b>0.0489</b>	<b>0.5524</b>	<b>1.6100e-003</b>	<b>0.1677</b>	<b>1.3500e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2500e-003</b>	<b>0.0457</b>		<b>160.8377</b>	<b>160.8377</b>	<b>4.7300e-003</b>		<b>160.9560</b>

**3.4 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					6.6358	0.0000	6.6358	3.3793	0.0000	3.3793			0.0000			0.0000
Off-Road	2.1031	22.8409	13.5972	0.0265		1.0481	1.0481		0.9643	0.9643		2,571.0284	2,571.0284	0.8315		2,591.8165
<b>Total</b>	<b>2.1031</b>	<b>22.8409</b>	<b>13.5972</b>	<b>0.0265</b>	<b>6.6358</b>	<b>1.0481</b>	<b>7.6840</b>	<b>3.3793</b>	<b>0.9643</b>	<b>4.3436</b>		<b>2,571.0284</b>	<b>2,571.0284</b>	<b>0.8315</b>		<b>2,591.8165</b>



City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.4 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	0.5998	19.0749	4.6852	0.0539	1.2284	0.0587	1.2871	0.3367	0.0562	0.3929		5,843.2763	5,843.2763	0.4178		5,853.7203
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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
<b>Total</b>	<b>0.6618</b>	<b>19.1173</b>	<b>5.1639</b>	<b>0.0553</b>	<b>1.3737</b>	<b>0.0599</b>	<b>1.4335</b>	<b>0.3753</b>	<b>0.0573</b>	<b>0.4325</b>		<b>5,982.6689</b>	<b>5,982.6689</b>	<b>0.4219</b>		<b>5,993.2155</b>

**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					2.5880	0.0000	2.5880	1.3179	0.0000	1.3179			0.0000			0.0000
Off-Road	2.1031	22.8409	13.5972	0.0265		1.0481	1.0481		0.9643	0.9643	0.0000	2,571.0284	2,571.0284	0.8315		2,591.8165
<b>Total</b>	<b>2.1031</b>	<b>22.8409</b>	<b>13.5972</b>	<b>0.0265</b>	<b>2.5880</b>	<b>1.0481</b>	<b>3.6361</b>	<b>1.3179</b>	<b>0.9643</b>	<b>2.2822</b>	<b>0.0000</b>	<b>2,571.0284</b>	<b>2,571.0284</b>	<b>0.8315</b>		<b>2,591.8165</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.4 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	0.5998	19.0749	4.6852	0.0539	1.2284	0.0587	1.2871	0.3367	0.0562	0.3929		5,843.2763	5,843.2763	0.4178		5,853.7203
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	0.0620	0.0424	0.4787	1.4000e-003	0.1453	1.1700e-003	0.1465	0.0385	1.0800e-003	0.0396		139.3926	139.3926	4.1000e-003		139.4952
<b>Total</b>	<b>0.6618</b>	<b>19.1173</b>	<b>5.1639</b>	<b>0.0553</b>	<b>1.3737</b>	<b>0.0599</b>	<b>1.4335</b>	<b>0.3753</b>	<b>0.0573</b>	<b>0.4325</b>		<b>5,982.6689</b>	<b>5,982.6689</b>	<b>0.4219</b>		<b>5,993.2155</b>

**3.5 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	1.4439	12.9353	11.4519	0.0200		0.6793	0.6793		0.6443	0.6443		1,878.7579	1,878.7579	0.3978		1,888.7038
<b>Total</b>	<b>1.4439</b>	<b>12.9353</b>	<b>11.4519</b>	<b>0.0200</b>		<b>0.6793</b>	<b>0.6793</b>		<b>0.6443</b>	<b>0.6443</b>		<b>1,878.7579</b>	<b>1,878.7579</b>	<b>0.3978</b>		<b>1,888.7038</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.5 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	0.0925	2.8098	0.8142	7.2600e-003	0.1857	5.9400e-003	0.1916	0.0535	5.6800e-003	0.0591		775.3020	775.3020	0.0501		776.5533
Worker	0.5340	0.3653	4.1245	0.0121	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,200.9212	1,200.9212	0.0353		1,201.8047
<b>Total</b>	<b>0.6266</b>	<b>3.1751</b>	<b>4.9387</b>	<b>0.0193</b>	<b>1.4376</b>	<b>0.0161</b>	<b>1.4536</b>	<b>0.3855</b>	<b>0.0150</b>	<b>0.4005</b>		<b>1,976.2232</b>	<b>1,976.2232</b>	<b>0.0854</b>		<b>1,978.3580</b>

**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	1.4439	12.9353	11.4519	0.0200		0.6793	0.6793		0.6443	0.6443	0.0000	1,878.7579	1,878.7579	0.3978		1,888.7038
<b>Total</b>	<b>1.4439</b>	<b>12.9353</b>	<b>11.4519</b>	<b>0.0200</b>		<b>0.6793</b>	<b>0.6793</b>		<b>0.6443</b>	<b>0.6443</b>	<b>0.0000</b>	<b>1,878.7579</b>	<b>1,878.7579</b>	<b>0.3978</b>		<b>1,888.7038</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.5 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	0.0925	2.8098	0.8142	7.2600e-003	0.1857	5.9400e-003	0.1916	0.0535	5.6800e-003	0.0591		775.3020	775.3020	0.0501		776.5533
Worker	0.5340	0.3653	4.1245	0.0121	1.2519	0.0101	1.2620	0.3320	9.3200e-003	0.3413		1,200.9212	1,200.9212	0.0353		1,201.8047
<b>Total</b>	<b>0.6266</b>	<b>3.1751</b>	<b>4.9387</b>	<b>0.0193</b>	<b>1.4376</b>	<b>0.0161</b>	<b>1.4536</b>	<b>0.3855</b>	<b>0.0150</b>	<b>0.4005</b>		<b>1,976.2232</b>	<b>1,976.2232</b>	<b>0.0854</b>		<b>1,978.3580</b>

**3.5 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	1.3044	11.6284	11.2933	0.0200		0.5814	0.5814		0.5518	0.5518		1,879.1346	1,879.1346	0.3936		1,888.9739
<b>Total</b>	<b>1.3044</b>	<b>11.6284</b>	<b>11.2933</b>	<b>0.0200</b>		<b>0.5814</b>	<b>0.5814</b>		<b>0.5518</b>	<b>0.5518</b>		<b>1,879.1346</b>	<b>1,879.1346</b>	<b>0.3936</b>		<b>1,888.9739</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.5 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	0.0869	2.6703	0.7707	7.1900e-003	0.1857	5.2000e-003	0.1909	0.0535	4.9700e-003	0.0584		768.4138	768.4138	0.0483		769.6211
Worker	0.5016	0.3299	3.7988	0.0116	1.2519	9.8000e-003	1.2617	0.3320	9.0300e-003	0.3410		1,158.7178	1,158.7178	0.0319		1,159.5154
<b>Total</b>	<b>0.5885</b>	<b>3.0002</b>	<b>4.5695</b>	<b>0.0188</b>	<b>1.4376</b>	<b>0.0150</b>	<b>1.4526</b>	<b>0.3855</b>	<b>0.0140</b>	<b>0.3995</b>		<b>1,927.1316</b>	<b>1,927.1316</b>	<b>0.0802</b>		<b>1,929.1366</b>

**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	1.3044	11.6284	11.2933	0.0200		0.5814	0.5814		0.5518	0.5518	0.0000	1,879.1346	1,879.1346	0.3936		1,888.9739
<b>Total</b>	<b>1.3044</b>	<b>11.6284</b>	<b>11.2933</b>	<b>0.0200</b>		<b>0.5814</b>	<b>0.5814</b>		<b>0.5518</b>	<b>0.5518</b>	<b>0.0000</b>	<b>1,879.1346</b>	<b>1,879.1346</b>	<b>0.3936</b>		<b>1,888.9739</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.5 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	0.0869	2.6703	0.7707	7.1900e-003	0.1857	5.2000e-003	0.1909	0.0535	4.9700e-003	0.0584		768.4138	768.4138	0.0483		769.6211
Worker	0.5016	0.3299	3.7988	0.0116	1.2519	9.8000e-003	1.2617	0.3320	9.0300e-003	0.3410		1,158.7178	1,158.7178	0.0319		1,159.5154
<b>Total</b>	<b>0.5885</b>	<b>3.0002</b>	<b>4.5695</b>	<b>0.0188</b>	<b>1.4376</b>	<b>0.0150</b>	<b>1.4526</b>	<b>0.3855</b>	<b>0.0140</b>	<b>0.3995</b>		<b>1,927.1316</b>	<b>1,927.1316</b>	<b>0.0802</b>		<b>1,929.1366</b>

**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	30.1600					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
<b>Total</b>	<b>30.3645</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**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	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	0.0985	0.0648	0.7462	2.2800e-003	0.2459	1.9200e-003	0.2478	0.0652	1.7700e-003	0.0670		227.6053	227.6053	6.2700e-003		227.7620
<b>Total</b>	<b>0.0985</b>	<b>0.0648</b>	<b>0.7462</b>	<b>2.2800e-003</b>	<b>0.2459</b>	<b>1.9200e-003</b>	<b>0.2478</b>	<b>0.0652</b>	<b>1.7700e-003</b>	<b>0.0670</b>		<b>227.6053</b>	<b>227.6053</b>	<b>6.2700e-003</b>		<b>227.7620</b>

**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	30.1600					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
<b>Total</b>	<b>30.3645</b>	<b>1.4085</b>	<b>1.8136</b>	<b>2.9700e-003</b>		<b>0.0817</b>	<b>0.0817</b>		<b>0.0817</b>	<b>0.0817</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0183</b>		<b>281.9062</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**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	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	0.0985	0.0648	0.7462	2.2800e-003	0.2459	1.9200e-003	0.2478	0.0652	1.7700e-003	0.0670		227.6053	227.6053	6.2700e-003		227.7620
<b>Total</b>	<b>0.0985</b>	<b>0.0648</b>	<b>0.7462</b>	<b>2.2800e-003</b>	<b>0.2459</b>	<b>1.9200e-003</b>	<b>0.2478</b>	<b>0.0652</b>	<b>1.7700e-003</b>	<b>0.0670</b>		<b>227.6053</b>	<b>227.6053</b>	<b>6.2700e-003</b>		<b>227.7620</b>

**3.7 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	0.7988	7.9428	10.0532	0.0153		0.4133	0.4133		0.3811	0.3811		1,471.3911	1,471.3911	0.4676		1,483.0801
Paving	0.2081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0069</b>	<b>7.9428</b>	<b>10.0532</b>	<b>0.0153</b>		<b>0.4133</b>	<b>0.4133</b>		<b>0.3811</b>	<b>0.3811</b>		<b>1,471.3911</b>	<b>1,471.3911</b>	<b>0.4676</b>		<b>1,483.0801</b>



City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.7 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	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	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**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	0.7988	7.9428	10.0532	0.0153		0.4133	0.4133		0.3811	0.3811	0.0000	1,471.3911	1,471.3911	0.4676		1,483.0801
Paving	0.2081					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0069</b>	<b>7.9428</b>	<b>10.0532</b>	<b>0.0153</b>		<b>0.4133</b>	<b>0.4133</b>		<b>0.3811</b>	<b>0.3811</b>	<b>0.0000</b>	<b>1,471.3911</b>	<b>1,471.3911</b>	<b>0.4676</b>		<b>1,483.0801</b>

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**3.7 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	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	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
<b>Total</b>	<b>0.0672</b>	<b>0.0442</b>	<b>0.5088</b>	<b>1.5600e-003</b>	<b>0.1677</b>	<b>1.3100e-003</b>	<b>0.1690</b>	<b>0.0445</b>	<b>1.2100e-003</b>	<b>0.0457</b>		<b>155.1854</b>	<b>155.1854</b>	<b>4.2700e-003</b>		<b>155.2922</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

City of Gardena - Townhome - Los Angeles-South Coast 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	0.7995	4.0405	10.6272	0.0388	3.3184	0.0331	3.3515	0.8881	0.0308	0.9189		3,953.064 4	3,953.064 4	0.2069		3,958.237 1
Unmitigated	0.7995	4.0405	10.6272	0.0388	3.3184	0.0331	3.3515	0.8881	0.0308	0.9189		3,953.064 4	3,953.064 4	0.2069		3,958.237 1

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		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	456.96	456.96	456.96	1,560,557	1,560,557
Other Asphalt Surfaces	0.00	0.00	0.00		
<b>Total</b>	<b>456.96</b>	<b>456.96</b>	<b>456.96</b>	<b>1,560,557</b>	<b>1,560,557</b>

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
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	14.70	5.90	8.70	40.00	19.00	41.00	86	11	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Condo/Townhouse High Rise	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876
Other Asphalt Surfaces	0.546501	0.044961	0.204016	0.120355	0.015740	0.006196	0.020131	0.030678	0.002515	0.002201	0.005142	0.000687	0.000876

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
NaturalGas Unmitigated	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**5.2 Energy by Land Use - Natural Gas**

**Unmitigated**

	Natural Gas 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 High Rise	2629.88	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0284</b>	<b>0.2424</b>	<b>0.1031</b>	<b>1.5500e-003</b>		<b>0.0196</b>	<b>0.0196</b>		<b>0.0196</b>	<b>0.0196</b>		<b>309.3978</b>	<b>309.3978</b>	<b>5.9300e-003</b>	<b>5.6700e-003</b>	<b>311.2364</b>

**Mitigated**

	Natural Gas 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 High Rise	2.62988	0.0284	0.2424	0.1031	1.5500e-003		0.0196	0.0196		0.0196	0.0196		309.3978	309.3978	5.9300e-003	5.6700e-003	311.2364
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0284</b>	<b>0.2424</b>	<b>0.1031</b>	<b>1.5500e-003</b>		<b>0.0196</b>	<b>0.0196</b>		<b>0.0196</b>	<b>0.0196</b>		<b>309.3978</b>	<b>309.3978</b>	<b>5.9300e-003</b>	<b>5.6700e-003</b>	<b>311.2364</b>

**6.0 Area Detail**

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive 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	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800
Unmitigated	2.0467	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383	0.0000	12.4790	12.4790	0.0120	0.0000	12.7800

City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**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	0.1487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2096	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383		12.4790	12.4790	0.0120		12.7800
<b>Total</b>	<b>2.0467</b>	<b>0.0800</b>	<b>6.9379</b>	<b>3.7000e-004</b>		<b>0.0383</b>	<b>0.0383</b>		<b>0.0383</b>	<b>0.0383</b>	<b>0.0000</b>	<b>12.4790</b>	<b>12.4790</b>	<b>0.0120</b>	<b>0.0000</b>	<b>12.7800</b>

City of Gardena - Townhome - Los Angeles-South Coast 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	0.1487					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6884					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2096	0.0800	6.9379	3.7000e-004		0.0383	0.0383		0.0383	0.0383		12.4790	12.4790	0.0120		12.7800
<b>Total</b>	<b>2.0467</b>	<b>0.0800</b>	<b>6.9379</b>	<b>3.7000e-004</b>		<b>0.0383</b>	<b>0.0383</b>		<b>0.0383</b>	<b>0.0383</b>	<b>0.0000</b>	<b>12.4790</b>	<b>12.4790</b>	<b>0.0120</b>	<b>0.0000</b>	<b>12.7800</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

**8.0 Waste Detail**

**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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



City of Gardena - Townhome - Los Angeles-South Coast County, Winter

**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**

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EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	MPG (Derived)
LOS ANGELES	2022	All Other Buses	Aggregated	Aggregated	DSL	2,427	146,502	14	10.21
LOS ANGELES	2022	LDA	Aggregated	Aggregated	GAS	4,040,505	154,312,636	5,097	30.28
LOS ANGELES	2022	LDA	Aggregated	Aggregated	DSL	35,581	1,405,949	30	47.31
LOS ANGELES	2022	LDA	Aggregated	Aggregated	ELEC	79,346	3,237,232	-	#DIV/0!
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	GAS	466,456	17,402,686	667	26.11
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	DSL	276	6,756	0	21.82
LOS ANGELES	2022	LDT1	Aggregated	Aggregated	ELEC	3,551	146,697	-	#DIV/0!
LOS ANGELES	2022	LDT2	Aggregated	Aggregated	GAS	1,395,328	52,851,239	2,173	24.32
LOS ANGELES	2022	LDT2	Aggregated	Aggregated	DSL	9,029	384,253	11	34.80
LOS ANGELES	2022	LDT2	Aggregated	Aggregated	ELEC	14,573	476,540	-	#DIV/0!
LOS ANGELES	2022	LHD1	Aggregated	Aggregated	GAS	107,665	3,912,115	374	10.45
LOS ANGELES	2022	LHD1	Aggregated	Aggregated	DSL	66,439	2,829,556	130	21.74
LOS ANGELES	2022	LHD2	Aggregated	Aggregated	GAS	18,107	636,816	70	9.10
LOS ANGELES	2022	LHD2	Aggregated	Aggregated	DSL	26,822	1,100,164	56	19.58
LOS ANGELES	2022	MCY	Aggregated	Aggregated	GAS	181,917	1,290,804	36	35.77
LOS ANGELES	2022	MDV	Aggregated	Aggregated	GAS	941,584	33,063,464	1,673	19.77
LOS ANGELES	2022	MDV	Aggregated	Aggregated	DSL	19,913	791,157	29	26.88
LOS ANGELES	2022	MDV	Aggregated	Aggregated	ELEC	7,530	254,508	-	#DIV/0!
LOS ANGELES	2022	MH	Aggregated	Aggregated	GAS	19,672	198,292	39	5.13
LOS ANGELES	2022	MH	Aggregated	Aggregated	DSL	6,143	64,186	6	10.53
LOS ANGELES	2022	Motor Coach	Aggregated	Aggregated	DSL	690	93,044	14	6.51
LOS ANGELES	2022	OBUS	Aggregated	Aggregated	GAS	4,028	167,753	34	5.00
LOS ANGELES	2022	PTO	Aggregated	Aggregated	DSL	-	79,209	16	4.93
LOS ANGELES	2022	SBUS	Aggregated	Aggregated	GAS	1,394	56,948	6	9.20
LOS ANGELES	2022	SBUS	Aggregated	Aggregated	DSL	3,867	122,197	16	7.61 MHD
LOS ANGELES	2022	T6 Ag	Aggregated	Aggregated	DSL	12	102	0	8.37 8.970169
LOS ANGELES	2022	T6 CAIRP heavy	Aggregated	Aggregated	DSL	339	67,084	6	11.55
LOS ANGELES	2022	T6 CAIRP small	Aggregated	Aggregated	DSL	182	9,464	1	10.81
LOS ANGELES	2022	T6 instate construction heavy	Aggregated	Aggregated	DSL	2,542	170,127	17	10.18
LOS ANGELES	2022	T6 instate construction small	Aggregated	Aggregated	DSL	8,462	450,146	44	10.24
LOS ANGELES	2022	T6 instate heavy	Aggregated	Aggregated	DSL	10,547	1,455,515	132	11.04
LOS ANGELES	2022	T6 instate small	Aggregated	Aggregated	DSL	38,737	1,972,425	191	10.34
LOS ANGELES	2022	T6 OOS heavy	Aggregated	Aggregated	DSL	196	38,839	3	11.56
LOS ANGELES	2022	T6 OOS small	Aggregated	Aggregated	DSL	104	5,388	0	10.79
LOS ANGELES	2022	T6 Public	Aggregated	Aggregated	DSL	4,527	70,713	9	8.16
LOS ANGELES	2022	T6 utility	Aggregated	Aggregated	DSL	1,014	17,106	2	9.69
LOS ANGELES	2022	T6TS	Aggregated	Aggregated	GAS	14,670	811,415	161	5.05 HHD
LOS ANGELES	2022	T7 Ag	Aggregated	Aggregated	DSL	5	103	0	5.56 6.413361
LOS ANGELES	2022	T7 CAIRP	Aggregated	Aggregated	DSL	6,382	1,134,601	165	6.89
LOS ANGELES	2022	T7 CAIRP construction	Aggregated	Aggregated	DSL	678	122,204	17	7.32
LOS ANGELES	2022	T7 NNOOS	Aggregated	Aggregated	DSL	6,909	1,383,135	190	7.27
LOS ANGELES	2022	T7 NOOS	Aggregated	Aggregated	DSL	2,521	445,790	66	6.72
LOS ANGELES	2022	T7 POLA	Aggregated	Aggregated	DSL	8,290	1,076,132	189	5.68
LOS ANGELES	2022	T7 Public	Aggregated	Aggregated	DSL	5,502	111,458	19	5.81
LOS ANGELES	2022	T7 Single	Aggregated	Aggregated	DSL	6,004	398,913	61	6.55
LOS ANGELES	2022	T7 single construction	Aggregated	Aggregated	DSL	4,340	303,165	45	6.76
LOS ANGELES	2022	T7 SWCV	Aggregated	Aggregated	DSL	1,393	56,894	28	2.03
LOS ANGELES	2022	T7 SWCV	Aggregated	Aggregated	NG	2,627	106,987	48	2.24
LOS ANGELES	2022	T7 tractor	Aggregated	Aggregated	DSL	12,304	1,664,071	233	7.13
LOS ANGELES	2022	T7 tractor construction	Aggregated	Aggregated	DSL	3,625	250,084	38	6.62
LOS ANGELES	2022	T7 utility	Aggregated	Aggregated	DSL	407	8,267	1	6.30
LOS ANGELES	2022	T7IS	Aggregated	Aggregated	GAS	55	5,861	1	4.11
LOS ANGELES	2022	UBUS	Aggregated	Aggregated	GAS	464	33,581	8	4.23
LOS ANGELES	2022	UBUS	Aggregated	Aggregated	DSL	37	5,105	1	6.33
LOS ANGELES	2022	UBUS	Aggregated	Aggregated	ELEC	14	1,218	-	#DIV/0!
LOS ANGELES	2022	UBUS	Aggregated	Aggregated	NG	4,177	442,636	113	3.93

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: LOS ANGELES

Calendar Year: 2020

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Fuel Consumption	MPG (Derived)
LOS ANGELES	2020	All Other Buses	Aggregated	Aggregated	DSL	2,343	137,564	14	9.75
LOS ANGELES	2020	LDA	Aggregated	Aggregated	GAS	3,953,775	155,194,410	5,389	28.80
LOS ANGELES	2020	LDA	Aggregated	Aggregated	DSL	31,076	1,254,452	28	44.95
LOS ANGELES	2020	LDA	Aggregated	Aggregated	ELEC	57,357	2,261,367	-	#DIV/0!
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	GAS	437,140	16,649,906	670	24.85
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	DSL	319	7,980	0	21.40
LOS ANGELES	2020	LDT1	Aggregated	Aggregated	ELEC	1,699	63,018	-	#DIV/0!
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	GAS	1,346,079	52,129,905	2,299	22.68
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	DSL	7,213	323,322	10	32.92
LOS ANGELES	2020	LDT2	Aggregated	Aggregated	ELEC	8,126	276,686	-	#DIV/0!
LOS ANGELES	2020	LHD1	Aggregated	Aggregated	GAS	108,459	4,003,593	391	10.25
LOS ANGELES	2020	LHD1	Aggregated	Aggregated	DSL	56,903	2,486,530	118	21.11
LOS ANGELES	2020	LHD2	Aggregated	Aggregated	GAS	17,784	634,396	71	8.93
LOS ANGELES	2020	LHD2	Aggregated	Aggregated	DSL	22,880	965,315	51	19.02
LOS ANGELES	2020	MCY	Aggregated	Aggregated	GAS	167,287	1,221,839	34	35.85
LOS ANGELES	2020	MDV	Aggregated	Aggregated	GAS	921,419	33,053,258	1,783	18.54
LOS ANGELES	2020	MDV	Aggregated	Aggregated	DSL	16,089	669,900	26	25.38
LOS ANGELES	2020	MDV	Aggregated	Aggregated	ELEC	2,584	90,675	-	#DIV/0!
LOS ANGELES	2020	MH	Aggregated	Aggregated	GAS	19,817	197,548	40	4.98
LOS ANGELES	2020	MH	Aggregated	Aggregated	DSL	5,531	58,524	6	10.25
LOS ANGELES	2020	Motor Coach	Aggregated	Aggregated	DSL	702	89,665	14	6.20
LOS ANGELES	2020	OBUS	Aggregated	Aggregated	GAS	4,050	176,715	36	4.87
LOS ANGELES	2020	PTO	Aggregated	Aggregated	DSL	-	77,604	16	4.73
LOS ANGELES	2020	SBUS	Aggregated	Aggregated	GAS	1,187	49,914	6	9.00
LOS ANGELES	2020	SBUS	Aggregated	Aggregated	DSL	3,809	120,609	16	7.46 MHD
LOS ANGELES	2020	T6 Ag	Aggregated	Aggregated	DSL	12	107	0	8.40 8.491201
LOS ANGELES	2020	T6 CAIRP heavy	Aggregated	Aggregated	DSL	325	64,529	6	10.93
LOS ANGELES	2020	T6 CAIRP small	Aggregated	Aggregated	DSL	171	9,062	1	10.32
LOS ANGELES	2020	T6 instate construction heavy	Aggregated	Aggregated	DSL	2,426	164,958	17	9.61
LOS ANGELES	2020	T6 instate construction small	Aggregated	Aggregated	DSL	8,537	435,827	45	9.75
LOS ANGELES	2020	T6 instate heavy	Aggregated	Aggregated	DSL	10,102	1,359,860	132	10.31
LOS ANGELES	2020	T6 instate small	Aggregated	Aggregated	DSL	37,541	1,865,391	190	9.82
LOS ANGELES	2020	T6 OOS heavy	Aggregated	Aggregated	DSL	186	37,251	3	10.94
LOS ANGELES	2020	T6 OOS small	Aggregated	Aggregated	DSL	99	5,170	1	10.30
LOS ANGELES	2020	T6 Public	Aggregated	Aggregated	DSL	4,476	69,103	9	7.85
LOS ANGELES	2020	T6 utility	Aggregated	Aggregated	DSL	1,007	16,810	2	9.16
LOS ANGELES	2020	T6TS	Aggregated	Aggregated	GAS	14,534	804,969	164	4.90 HHD
LOS ANGELES	2020	T7 Ag	Aggregated	Aggregated	DSL	4	121	0	5.57 6.140757
LOS ANGELES	2020	T7 CAIRP	Aggregated	Aggregated	DSL	6,042	1,093,836	164	6.66
LOS ANGELES	2020	T7 CAIRP construction	Aggregated	Aggregated	DSL	644	118,491	17	7.03
LOS ANGELES	2020	T7 NNOOS	Aggregated	Aggregated	DSL	6,606	1,333,461	194	6.88
LOS ANGELES	2020	T7 NOOS	Aggregated	Aggregated	DSL	2,375	429,768	66	6.51
LOS ANGELES	2020	T7 POLA	Aggregated	Aggregated	DSL	7,813	956,448	173	5.52
LOS ANGELES	2020	T7 Public	Aggregated	Aggregated	DSL	5,389	109,151	19	5.64
LOS ANGELES	2020	T7 Single	Aggregated	Aggregated	DSL	5,737	390,830	63	6.20
LOS ANGELES	2020	T7 single construction	Aggregated	Aggregated	DSL	4,168	293,954	46	6.35
LOS ANGELES	2020	T7 SWCV	Aggregated	Aggregated	DSL	1,728	70,608	35	2.02
LOS ANGELES	2020	T7 SWCV	Aggregated	Aggregated	NG	2,261	92,031	42	2.17
LOS ANGELES	2020	T7 tractor	Aggregated	Aggregated	DSL	11,762	1,618,822	240	6.74
LOS ANGELES	2020	T7 tractor construction	Aggregated	Aggregated	DSL	3,451	242,486	38	6.33
LOS ANGELES	2020	T7 utility	Aggregated	Aggregated	DSL	400	8,126	1	5.99
LOS ANGELES	2020	T7IS	Aggregated	Aggregated	GAS	62	5,725	1	3.88
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	GAS	456	33,185	8	4.15
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	DSL	41	5,505	1	6.42
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	ELEC	14	1,218	-	#DIV/0!
LOS ANGELES	2020	UBUS	Aggregated	Aggregated	NG	4,123	436,939	111	3.95

## On-road Mobile (Operational) Energy Usage

Note: Assumes that all vehicles that are generated as part of proposed project use gasoline as a fuel source (for simplicity), since the vast majority of vehicles generated by the project would use gasoline.

### Unmitigated:

Step 1:

Therefore:

**Average Daily VMT:**

4,275 Note: Estimated via CalEEMod output (1,560,557 annual VMT, divided by 365 days per year).

Step 2:

Given:

**Fleet Mix (CalEEMod Output)**

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
54.65%	4.50%	20.40%	12.04%	1.57%	0.62%	2.01%	3.07%	0.25%	0.22%	0.51%	0.07%	0.09%

And:

**Gasoline MPG Factors for each Vehicle Class - Year 2022 (EMFAC2017 Output)**

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
30.28	26.11	24.32	19.77	10.45	9.10	N/A	N/A	5.00	4.11	35.77	9.20	5.13

Therefore:

**Weighted Average MPG Factors**

Gasoline: 25.50

Step 3:

Therefore:

168 daily gallons of gasoline

or

61,202 annual gallons of gasoline

## Off-road (i.e. On-site) Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source. Demolition, Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

<b>Given Factor:</b>	<b>59.3 metric tons</b>	<b>CO2</b>	<b>(provided in CalEEMod Output File)</b>
Conversion Factor:	2204.6262 pounds	per metric ton	
<b>Intermediate Result:</b>	<b>130,677 pounds</b>	<b>CO2</b>	
Conversion Factor:	22.38 pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
<b>Final Result:</b>	<b>5,839.02 gallons</b>	<b>diesel fuel</b>	<a href="http://www.eia.gov/tools/faqs/faq.cfm?id=307&amp;t=11">http://www.eia.gov/tools/faqs/faq.cfm?id=307&amp;t=11</a>

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Demolition	40.2564
Site Preparation	9.6127
Grading	9.4050

## On-road Mobile (Construction) Energy Usage - Demolition

Note: Year 2020 MPG factors were derived for construction-related energy consumption (for the sake of a conservative estimate).

Step 1: **Total Daily Worker Trips (CalEEMod output)**  
 20

**Worker Trip Length (miles) (CalEEMod output)**  
 14.7

Therefore:  
**Average Worker Daily VMT:**  
 294

Step 2: Given:  
**Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:  
**Gasoline MPG Factors for each Vehicle Class - Year 2020 (EMFAC2017 output)**

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:  
**Weighted Average Worker MPG Factor**  
 26.28

Step 3: **Therefore:**  
 11 Worker daily gallons of gasoline (all workers)

Step 4: 20 # of Days (CalEEMod output)

Therefore:  
**Result:** 224 Total gallons of gasoline (all workers)

**Total Hauler Trips (CalEEMod Output)**  
 28

Note: Hauler trips are total values (not daily).

**Hauler Trip Length (miles) (CalEEMod Output)**  
 20

**Average Hauler Daily VMT:**  
 560

**Fleet Mix for Workers (CalEEMod Output)**

MHD	HHD
0%	100%

**Diesel MPG Factors for each Vehicle Class - Year 2020 (EMFAC2017 output)**

MHD	HHD
8.49	6.14

Therefore:  
**Weighted Average Hauler (Diesel) MPG Factor**  
 6.14

**Therefore:**  
 91 Worker daily gallons of gasoline (all workers)

20 # of Days (CalEEMod output)

Therefore:  
**Result:** 91 Hauler gallons of diesel

## On-road Mobile (Construction) Energy Usage - Site Preparation

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

15

**Worker Trip Length (miles) (CalEEMod Output)**

14.7

Therefore:

**Average Worker Daily VMT:**

221

Step 2: Given:

**Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

**Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020**

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

**Weighted Average Worker MPG Factor**

26.28

Step 3: **Therefore:**

8 Worker daily gallons of gasoline

Step 4: 5 # of Days (CalEEMod Output)

Therefore:

**Result:** 42 Total gallons of gasoline

## On-road Mobile (Construction) Energy Usage - Grading

Step 1: **Total Daily Worker Trips (CalEEMod Output)**  
 13

**Worker Trip Length (miles) (CalEEMod Output)**  
 14.7

Therefore:  
**Average Worker Daily VMT:**  
 191

Step 2: Given:  
**Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:  
**Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020**

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:  
**Weighted Average Worker MPG Factor**  
 26.28

Step 3: **Therefore:**  
 7 Worker daily gallons of gasoline

Step 4: **8 # of Days (CalEEMod Output)**

Therefore:  
**Result:** 58 Total gallons of gasoline

**Total Hauler Trips (CalEEMod Output)**  
 562

Note: Hauler trips are total values (not daily).

**Hauler Trip Length (miles) (CalEEMod Output)**  
 20

**Average Hauler Daily VMT:**  
 11,240

**Fleet Mix for Workers (CalEEMod Output)**

MHD	HHD
0%	100%

**Diesel MPG Factors for each Vehicle Class - Year 2020 (EMFAC2017 output)**

MHD	HHD
8.49	6.14

Therefore:  
**Weighted Average Hauler (Diesel) MPG Factor**  
 6.14

Therefore:  
 1,830 Worker daily gallons of gasoline (all workers)

**8 # of Days (CalEEMod output)**

Therefore:  
**Result:** 1,830 Hauler daily gallons of diesel



# On-road Mobile (Construction) Energy Usage - Building Construction

Step 1:	<b>Total Daily Worker Trips (CalEEMod Output)</b> 112	<b>Total Daily Vendor Trips (CalEEMod Output)</b> 29										
	<b>Worker Trip Length (miles) (CalEEMod Output)</b> 14.7	<b>Vendor Trip Length (miles) (CalEEMod Output)</b> 6.9										
	Therefore: <b>Average Worker Daily VMT:</b> 1,646	<b>Average Vendor Daily VMT:</b> 200										
Step 2:	Given: <b>Assumed Fleet Mix for Workers</b> (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15) <table border="0"> <tr> <td><b>LDA</b></td> <td><b>LDT1</b></td> <td><b>LDT2</b></td> </tr> <tr> <td>0.5</td> <td>0.25</td> <td>0.25</td> </tr> </table> <b>Assumed Fleet Mix for Vendors</b>	<b>LDA</b>	<b>LDT1</b>	<b>LDT2</b>	0.5	0.25	0.25	<b>Fleet Mix for Workers (CalEEMod Output)</b> <table border="0"> <tr> <td><b>MHD</b></td> <td><b>HHD</b></td> </tr> <tr> <td>0%</td> <td>100%</td> </tr> </table>	<b>MHD</b>	<b>HHD</b>	0%	100%
<b>LDA</b>	<b>LDT1</b>	<b>LDT2</b>										
0.5	0.25	0.25										
<b>MHD</b>	<b>HHD</b>											
0%	100%											
	And: <b>MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020</b> <b>Gasoline:</b> <table border="0"> <tr> <td><b>LDA</b></td> <td><b>LDT1</b></td> <td><b>LDT2</b></td> </tr> <tr> <td>28.80</td> <td>24.85</td> <td>22.68</td> </tr> </table>	<b>LDA</b>	<b>LDT1</b>	<b>LDT2</b>	28.80	24.85	22.68	<b>Diesel:</b> <table border="0"> <tr> <td><b>MHD</b></td> <td><b>HHD</b></td> </tr> <tr> <td>8.49</td> <td>6.14</td> </tr> </table>	<b>MHD</b>	<b>HHD</b>	8.49	6.14
<b>LDA</b>	<b>LDT1</b>	<b>LDT2</b>										
28.80	24.85	22.68										
<b>MHD</b>	<b>HHD</b>											
8.49	6.14											
	Therefore: <b>Weighted Average Worker (Gasoline) MPG Factor</b> 26.28	<b>Weighted Average Vendor (Diesel) MPG Factor</b> 6.14										
Step 3:	<b>Therefore:</b> 63 Worker daily gallons of gasoline	<b>Therefore:</b> 33 Vendor daily gallons of diesel										
Step 4:	230 # of Days (CalEEMod Output) Therefore: 14,409 Total gallons of gasoline	Therefore: 7,495 Total gallons of diesel										

## On-road Mobile (Construction) Energy Usage - Architectural Coating

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

22

**Worker Trip Length (miles) (CalEEMod Output)**

14.7

Therefore:

**Average Worker Daily VMT:**

323

Step 2: Given:

**Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

**Gasoline MPG Factors for each Vehicle Class (EMFAC2017 Output) - Year 2020**

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

**Weighted Average Worker MPG Factor**

26.3

Step 3: **Therefore:**

12 Worker daily gallons of gasoline

Step 4: 18 # of Days (CalEEMod Output)

Therefore:

**Result:** 222 Total gallons of gasoline

## On-road Mobile (Construction) Energy Usage - Paving

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

15

**Worker Trip Length (miles) (CalEEMod Output)**

14.7

Therefore:

**Average Worker Daily VMT:**

221

Step 2: Given:

**Assumed Fleet Mix for Workers** (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

**Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2020**

LDA	LDT1	LDT2
28.80	24.85	22.68

Therefore:

**Weighted Average Worker MPG Factor**

26.3

Step 3: **Therefore:**

8 Worker daily gallons of gasoline

Step 4: 18 # of Days (CalEEMod Output)

Therefore:

**Result:** 151 Total gallons of gasoline