

**APPENDIX B1**  
**CRITERIA POLLUTANT EMISSIONS CALCULATIONS**

Santa Angelina Senior Apartment Homes - Orange County, Summer

**Santa Angelina Senior Apartment Homes**  
**Orange County, Summer**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3.97	1000sqft	0.09	3,974.00	0
Apartments Low Rise	65.00	Dwelling Unit	4.06	42,500.00	186

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2024
<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**

Santa Angelina Senior Apartment Homes - Orange County, Summer

Project Characteristics -

Land Use - Place of worship land use subtype used for parish, square feet supplied by client

Construction Phase - Construction schedule provided by client

Off-road Equipment -

Off-road Equipment - Equipment list provided by client

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip rates from Trip Generation Assessment - Fehr & Peers (weekend adjusted)

Woodstoves - No fireplaces or wood stoves

Area Coating -

Construction Off-road Equipment Mitigation - 26% based on collector Table XI-C

## Santa Angelina Senior Apartment Homes - Orange County, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	5.00	44.00
tblConstructionPhase	NumDays	230.00	242.00
tblFireplaces	NumberGas	55.25	0.00
tblFireplaces	NumberNoFireplace	6.50	65.00
tblFireplaces	NumberWood	3.25	0.00
tblGrading	AcresOfGrading	30.00	4.00
tblLandUse	LandUseSquareFeet	3,970.00	3,974.00
tblLandUse	LandUseSquareFeet	65,000.00	42,500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	744.00
tblWoodstoves	NumberCatalytic	3.25	0.00
tblWoodstoves	NumberNoncatalytic	3.25	0.00

## 2.0 Emissions Summary

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Santa Angelina Senior Apartment Homes - Orange County, Summer

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Energy	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
Mobile	0.4237	1.4872	5.5907	0.0229	2.2338	0.0156	2.2493	0.5973	0.0144	0.6118		2,330.5902	2,330.5902	0.0894		2,332.8256
<b>Total</b>	<b>1.6150</b>	<b>1.7807</b>	<b>11.0593</b>	<b>0.0247</b>	<b>2.2338</b>	<b>0.0639</b>	<b>2.2977</b>	<b>0.5973</b>	<b>0.0628</b>	<b>0.6601</b>	<b>0.0000</b>	<b>2,634.3420</b>	<b>2,634.3420</b>	<b>0.1043</b>	<b>5.3900e-003</b>	<b>2,638.5567</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	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Energy	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
Mobile	0.4237	1.4872	5.5907	0.0229	2.2338	0.0156	2.2493	0.5973	0.0144	0.6118		2,330.5902	2,330.5902	0.0894		2,332.8256
<b>Total</b>	<b>1.6150</b>	<b>1.7807</b>	<b>11.0593</b>	<b>0.0247</b>	<b>2.2338</b>	<b>0.0639</b>	<b>2.2977</b>	<b>0.5973</b>	<b>0.0628</b>	<b>0.6601</b>	<b>0.0000</b>	<b>2,634.3420</b>	<b>2,634.3420</b>	<b>0.1043</b>	<b>5.3900e-003</b>	<b>2,638.5567</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	1/1/2022	1/31/2022	5	21	
2	Grading	Grading	2/1/2022	2/28/2022	5	20	
3	Site Work - utilities/paving	Site Preparation	3/1/2022	4/29/2022	5	44	
4	Building Construction	Building Construction	5/1/2022	4/4/2023	5	242	
5	Architectural Coating	Architectural Coating	4/5/2023	4/28/2023	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 86,063; Residential Outdoor: 28,688; Non-Residential Indoor: 5,961; Non-Residential Outdoor: 1,987; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Santa Angelina Senior Apartment Homes - Orange County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Work - utilities/paving	Excavators	1	6.00	158	0.38
Site Work - utilities/paving	Paving Equipment	1	4.00	132	0.36
Site Work - utilities/paving	Rubber Tired Loaders	2	4.00	203	0.36
Site Work - utilities/paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	2	6.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Rubber Tired Loaders	1	7.00	203	0.36
Building Construction	Skid Steer Loaders	1	7.00	65	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Work - utilities/paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	744.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	48.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

**3.2 Demolition - 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					
Fugitive Dust					0.1628	0.0000	0.1628	0.0246	0.0000	0.0246			0.0000			0.0000
Off-Road	1.3029	11.5112	14.6468	0.0265		0.5435	0.5435		0.5109	0.5109		2,555.9509	2,555.9509	0.6979		2,573.3985
<b>Total</b>	<b>1.3029</b>	<b>11.5112</b>	<b>14.6468</b>	<b>0.0265</b>	<b>0.1628</b>	<b>0.5435</b>	<b>0.7063</b>	<b>0.0246</b>	<b>0.5109</b>	<b>0.5355</b>		<b>2,555.9509</b>	<b>2,555.9509</b>	<b>0.6979</b>		<b>2,573.3985</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.2 Demolition - 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	5.2100e-003	0.1780	0.0535	5.7000e-004	0.0133	5.3000e-004	0.0138	3.6300e-003	5.0000e-004	4.1300e-003		63.3539	63.3539	6.5700e-003		63.5182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		151.9802	151.9802	3.0700e-003		152.0569
<b>Total</b>	<b>0.0564</b>	<b>0.2077</b>	<b>0.4787</b>	<b>2.0900e-003</b>	<b>0.1809</b>	<b>1.5900e-003</b>	<b>0.1825</b>	<b>0.0481</b>	<b>1.4800e-003</b>	<b>0.0496</b>		<b>215.3341</b>	<b>215.3341</b>	<b>9.6400e-003</b>		<b>215.5751</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					0.0635	0.0000	0.0635	9.6100e-003	0.0000	9.6100e-003			0.0000			0.0000
Off-Road	1.3029	11.5112	14.6468	0.0265		0.5435	0.5435		0.5109	0.5109	0.0000	2,555.9509	2,555.9509	0.6979		2,573.3984
<b>Total</b>	<b>1.3029</b>	<b>11.5112</b>	<b>14.6468</b>	<b>0.0265</b>	<b>0.0635</b>	<b>0.5435</b>	<b>0.6070</b>	<b>9.6100e-003</b>	<b>0.5109</b>	<b>0.5205</b>	<b>0.0000</b>	<b>2,555.9509</b>	<b>2,555.9509</b>	<b>0.6979</b>		<b>2,573.3984</b>

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**3.2 Demolition - 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	5.2100e-003	0.1780	0.0535	5.7000e-004	0.0107	5.3000e-004	0.0112	2.9900e-003	5.0000e-004	3.4900e-003		63.3539	63.3539	6.5700e-003		63.5182
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0512	0.0297	0.4252	1.5200e-003	0.1298	1.0600e-003	0.1308	0.0352	9.8000e-004	0.0361		151.9802	151.9802	3.0700e-003		152.0569
<b>Total</b>	<b>0.0564</b>	<b>0.2077</b>	<b>0.4787</b>	<b>2.0900e-003</b>	<b>0.1404</b>	<b>1.5900e-003</b>	<b>0.1420</b>	<b>0.0382</b>	<b>1.4800e-003</b>	<b>0.0396</b>		<b>215.3341</b>	<b>215.3341</b>	<b>9.6400e-003</b>		<b>215.5751</b>

**3.3 Grading - 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					
Fugitive Dust					6.2342	0.0000	6.2342	3.3331	0.0000	3.3331			0.0000			0.0000
Off-Road	2.4492	26.1533	16.5321	0.0391		1.1073	1.1073		1.0187	1.0187		3,787.9634	3,787.9634	1.2251		3,818.5910
<b>Total</b>	<b>2.4492</b>	<b>26.1533</b>	<b>16.5321</b>	<b>0.0391</b>	<b>6.2342</b>	<b>1.1073</b>	<b>7.3415</b>	<b>3.3331</b>	<b>1.0187</b>	<b>4.3518</b>		<b>3,787.9634</b>	<b>3,787.9634</b>	<b>1.2251</b>		<b>3,818.5910</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.3 Grading - 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	0.2543	8.6896	2.6116	0.0276	0.6476	0.0257	0.6733	0.1773	0.0246	0.2019		3,093.2537	3,093.2537	0.3209		3,101.2769
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	0.0443	0.0257	0.3685	1.3200e-003	0.1453	9.2000e-004	0.1462	0.0385	8.5000e-004	0.0394		131.7162	131.7162	2.6600e-003		131.7827
<b>Total</b>	<b>0.2986</b>	<b>8.7153</b>	<b>2.9802</b>	<b>0.0290</b>	<b>0.7929</b>	<b>0.0266</b>	<b>0.8195</b>	<b>0.2158</b>	<b>0.0254</b>	<b>0.2412</b>		<b>3,224.9699</b>	<b>3,224.9699</b>	<b>0.3236</b>		<b>3,233.0596</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					2.4313	0.0000	2.4313	1.2999	0.0000	1.2999			0.0000			0.0000
Off-Road	2.4492	26.1533	16.5321	0.0391		1.1073	1.1073		1.0187	1.0187	0.0000	3,787.9634	3,787.9634	1.2251		3,818.5910
<b>Total</b>	<b>2.4492</b>	<b>26.1533</b>	<b>16.5321</b>	<b>0.0391</b>	<b>2.4313</b>	<b>1.1073</b>	<b>3.5386</b>	<b>1.2999</b>	<b>1.0187</b>	<b>2.3186</b>	<b>0.0000</b>	<b>3,787.9634</b>	<b>3,787.9634</b>	<b>1.2251</b>		<b>3,818.5910</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.3 Grading - 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	0.2543	8.6896	2.6116	0.0276	0.5198	0.0257	0.5454	0.1459	0.0246	0.1705		3,093.2537	3,093.2537	0.3209		3,101.2769
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	0.0443	0.0257	0.3685	1.3200e-003	0.1125	9.2000e-004	0.1134	0.0305	8.5000e-004	0.0313		131.7162	131.7162	2.6600e-003		131.7827
<b>Total</b>	<b>0.2986</b>	<b>8.7153</b>	<b>2.9802</b>	<b>0.0290</b>	<b>0.6322</b>	<b>0.0266</b>	<b>0.6588</b>	<b>0.1764</b>	<b>0.0254</b>	<b>0.2018</b>		<b>3,224.9699</b>	<b>3,224.9699</b>	<b>0.3236</b>		<b>3,233.0596</b>

**3.4 Site Work - utilities/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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0264	10.2535	11.9594	0.0215		0.4786	0.4786		0.4404	0.4404		2,081.6268	2,081.6268	0.6732		2,098.4578
<b>Total</b>	<b>1.0264</b>	<b>10.2535</b>	<b>11.9594</b>	<b>0.0215</b>	<b>0.0000</b>	<b>0.4786</b>	<b>0.4786</b>	<b>0.0000</b>	<b>0.4404</b>	<b>0.4404</b>		<b>2,081.6268</b>	<b>2,081.6268</b>	<b>0.6732</b>		<b>2,098.4578</b>

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**3.4 Site Work - utilities/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	0.0614	0.0356	0.5103	1.8300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		182.3762	182.3762	3.6800e-003		182.4683
<b>Total</b>	<b>0.0614</b>	<b>0.0356</b>	<b>0.5103</b>	<b>1.8300e-003</b>	<b>0.2012</b>	<b>1.2800e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.1800e-003</b>	<b>0.0545</b>		<b>182.3762</b>	<b>182.3762</b>	<b>3.6800e-003</b>		<b>182.4683</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0264	10.2535	11.9594	0.0215		0.4786	0.4786		0.4404	0.4404	0.0000	2,081.6268	2,081.6268	0.6732		2,098.4578
<b>Total</b>	<b>1.0264</b>	<b>10.2535</b>	<b>11.9594</b>	<b>0.0215</b>	<b>0.0000</b>	<b>0.4786</b>	<b>0.4786</b>	<b>0.0000</b>	<b>0.4404</b>	<b>0.4404</b>	<b>0.0000</b>	<b>2,081.6268</b>	<b>2,081.6268</b>	<b>0.6732</b>		<b>2,098.4578</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.4 Site Work - utilities/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	0.0614	0.0356	0.5103	1.8300e-003	0.1557	1.2800e-003	0.1570	0.0422	1.1800e-003	0.0434		182.3762	182.3762	3.6800e-003		182.4683
<b>Total</b>	<b>0.0614</b>	<b>0.0356</b>	<b>0.5103</b>	<b>1.8300e-003</b>	<b>0.1557</b>	<b>1.2800e-003</b>	<b>0.1570</b>	<b>0.0422</b>	<b>1.1800e-003</b>	<b>0.0434</b>		<b>182.3762</b>	<b>182.3762</b>	<b>3.6800e-003</b>		<b>182.4683</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	0.4295	4.5143	3.7074	8.8100e-003		0.1889	0.1889		0.1738	0.1738		853.3295	853.3295	0.2760		860.2291
<b>Total</b>	<b>0.4295</b>	<b>4.5143</b>	<b>3.7074</b>	<b>8.8100e-003</b>		<b>0.1889</b>	<b>0.1889</b>		<b>0.1738</b>	<b>0.1738</b>		<b>853.3295</b>	<b>853.3295</b>	<b>0.2760</b>		<b>860.2291</b>

Santa Angelina Senior Apartment Homes - Orange 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	0.0201	0.7100	0.1965	1.9500e-003	0.0511	1.3600e-003	0.0525	0.0147	1.3000e-003	0.0160		212.9221	212.9221	0.0163		213.3304
Worker	0.1637	0.0950	1.3607	4.8800e-003	0.5365	3.4100e-003	0.5399	0.1423	3.1400e-003	0.1454		486.3366	486.3366	9.8200e-003		486.5822
<b>Total</b>	<b>0.1838</b>	<b>0.8050</b>	<b>1.5572</b>	<b>6.8300e-003</b>	<b>0.5876</b>	<b>4.7700e-003</b>	<b>0.5924</b>	<b>0.1570</b>	<b>4.4400e-003</b>	<b>0.1614</b>		<b>699.2587</b>	<b>699.2587</b>	<b>0.0262</b>		<b>699.9126</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	0.4295	4.5143	3.7074	8.8100e-003		0.1889	0.1889		0.1738	0.1738	0.0000	853.3295	853.3295	0.2760		860.2291
<b>Total</b>	<b>0.4295</b>	<b>4.5143</b>	<b>3.7074</b>	<b>8.8100e-003</b>		<b>0.1889</b>	<b>0.1889</b>		<b>0.1738</b>	<b>0.1738</b>	<b>0.0000</b>	<b>853.3295</b>	<b>853.3295</b>	<b>0.2760</b>		<b>860.2291</b>

Santa Angelina Senior Apartment Homes - Orange 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	0.0201	0.7100	0.1965	1.9500e-003	0.0416	1.3600e-003	0.0430	0.0124	1.3000e-003	0.0137		212.9221	212.9221	0.0163		213.3304
Worker	0.1637	0.0950	1.3607	4.8800e-003	0.4153	3.4100e-003	0.4187	0.1125	3.1400e-003	0.1157		486.3366	486.3366	9.8200e-003		486.5822
<b>Total</b>	<b>0.1838</b>	<b>0.8050</b>	<b>1.5572</b>	<b>6.8300e-003</b>	<b>0.4569</b>	<b>4.7700e-003</b>	<b>0.4616</b>	<b>0.1249</b>	<b>4.4400e-003</b>	<b>0.1293</b>		<b>699.2587</b>	<b>699.2587</b>	<b>0.0262</b>		<b>699.9126</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3962	4.0391	3.6781	8.8100e-003		0.1627	0.1627		0.1497	0.1497		853.3223	853.3223	0.2760		860.2218
<b>Total</b>	<b>0.3962</b>	<b>4.0391</b>	<b>3.6781</b>	<b>8.8100e-003</b>		<b>0.1627</b>	<b>0.1627</b>		<b>0.1497</b>	<b>0.1497</b>		<b>853.3223</b>	<b>853.3223</b>	<b>0.2760</b>		<b>860.2218</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0153	0.5359	0.1834	1.8900e-003	0.0511	6.5000e-004	0.0518	0.0147	6.2000e-004	0.0153		206.4532	206.4532	0.0152		206.8329
Worker	0.1551	0.0862	1.2690	4.6900e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		467.6398	467.6398	8.9100e-003		467.8625
<b>Total</b>	<b>0.1703</b>	<b>0.6221</b>	<b>1.4524</b>	<b>6.5800e-003</b>	<b>0.5876</b>	<b>4.0000e-003</b>	<b>0.5916</b>	<b>0.1570</b>	<b>3.7000e-003</b>	<b>0.1607</b>		<b>674.0930</b>	<b>674.0930</b>	<b>0.0241</b>		<b>674.6953</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	0.3962	4.0391	3.6781	8.8100e-003		0.1627	0.1627		0.1497	0.1497	0.0000	853.3223	853.3223	0.2760		860.2218
<b>Total</b>	<b>0.3962</b>	<b>4.0391</b>	<b>3.6781</b>	<b>8.8100e-003</b>		<b>0.1627</b>	<b>0.1627</b>		<b>0.1497</b>	<b>0.1497</b>	<b>0.0000</b>	<b>853.3223</b>	<b>853.3223</b>	<b>0.2760</b>		<b>860.2218</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0153	0.5359	0.1834	1.8900e-003	0.0416	6.5000e-004	0.0423	0.0124	6.2000e-004	0.0130		206.4532	206.4532	0.0152		206.8329
Worker	0.1551	0.0862	1.2690	4.6900e-003	0.4153	3.3500e-003	0.4186	0.1125	3.0800e-003	0.1156		467.6398	467.6398	8.9100e-003		467.8625
<b>Total</b>	<b>0.1703</b>	<b>0.6221</b>	<b>1.4524</b>	<b>6.5800e-003</b>	<b>0.4569</b>	<b>4.0000e-003</b>	<b>0.4609</b>	<b>0.1249</b>	<b>3.7000e-003</b>	<b>0.1286</b>		<b>674.0930</b>	<b>674.0930</b>	<b>0.0241</b>		<b>674.6953</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.8208					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.0125</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.6 Architectural Coating - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0323	0.0180	0.2644	9.8000e-004	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		97.4250	97.4250	1.8600e-003		97.4714
<b>Total</b>	<b>0.0323</b>	<b>0.0180</b>	<b>0.2644</b>	<b>9.8000e-004</b>	<b>0.1118</b>	<b>7.0000e-004</b>	<b>0.1125</b>	<b>0.0296</b>	<b>6.4000e-004</b>	<b>0.0303</b>		<b>97.4250</b>	<b>97.4250</b>	<b>1.8600e-003</b>		<b>97.4714</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	16.8208					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.0125</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**3.6 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0323	0.0180	0.2644	9.8000e-004	0.0865	7.0000e-004	0.0872	0.0234	6.4000e-004	0.0241		97.4250	97.4250	1.8600e-003		97.4714
<b>Total</b>	<b>0.0323</b>	<b>0.0180</b>	<b>0.2644</b>	<b>9.8000e-004</b>	<b>0.0865</b>	<b>7.0000e-004</b>	<b>0.0872</b>	<b>0.0234</b>	<b>6.4000e-004</b>	<b>0.0241</b>		<b>97.4250</b>	<b>97.4250</b>	<b>1.8600e-003</b>		<b>97.4714</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

Santa Angelina Senior Apartment Homes - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4237	1.4872	5.5907	0.0229	2.2338	0.0156	2.2493	0.5973	0.0144	0.6118		2,330.590 2	2,330.590 2	0.0894		2,332.825 6
Unmitigated	0.4237	1.4872	5.5907	0.0229	2.2338	0.0156	2.2493	0.5973	0.0144	0.6118		2,330.590 2	2,330.590 2	0.0894		2,332.825 6

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	240.50	261.30	221.00	819,785	819,785
Place of Worship	19.02	21.64	76.42	58,847	58,847
Total	259.52	282.94	297.42	878,632	878,632

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
Apartments Low Rise	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.565244	0.042904	0.209304	0.108392	0.014546	0.005773	0.026273	0.017831	0.001792	0.001509	0.004953	0.000602	0.000877
Place of Worship	0.565244	0.042904	0.209304	0.108392	0.014546	0.005773	0.026273	0.017831	0.001792	0.001509	0.004953	0.000602	0.000877

Santa Angelina Senior Apartment Homes - Orange County, Summer

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
NaturalGas Unmitigated	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427

Santa Angelina Senior Apartment Homes - Orange County, Summer

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	2272.26	0.0245	0.2094	0.0891	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3242	267.3242	5.1200e-003	4.9000e-003	268.9128
Place of Worship	227.552	2.4500e-003	0.0223	0.0187	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.7709	26.7709	5.1000e-004	4.9000e-004	26.9300
<b>Total</b>		<b>0.0270</b>	<b>0.2317</b>	<b>0.1079</b>	<b>1.4700e-003</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>		<b>294.0951</b>	<b>294.0951</b>	<b>5.6300e-003</b>	<b>5.3900e-003</b>	<b>295.8427</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	lb/day										lb/day					
Apartments Low Rise	2.27226	0.0245	0.2094	0.0891	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3242	267.3242	5.1200e-003	4.9000e-003	268.9128
Place of Worship	0.227552	2.4500e-003	0.0223	0.0187	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.7709	26.7709	5.1000e-004	4.9000e-004	26.9300
<b>Total</b>		<b>0.0270</b>	<b>0.2317</b>	<b>0.1079</b>	<b>1.4700e-003</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>		<b>294.0951</b>	<b>294.0951</b>	<b>5.6300e-003</b>	<b>5.3900e-003</b>	<b>295.8427</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Santa Angelina Senior Apartment Homes - Orange County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Unmitigated	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884

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	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9202					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	0.1612	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297		9.6568	9.6568	9.2700e-003		9.8884
<b>Total</b>	<b>1.1644</b>	<b>0.0618</b>	<b>5.3607</b>	<b>2.8000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0297</b>	<b>0.0297</b>	<b>0.0000</b>	<b>9.6568</b>	<b>9.6568</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>9.8884</b>

Santa Angelina Senior Apartment Homes - Orange County, Summer

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9202					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	0.1612	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297		9.6568	9.6568	9.2700e-003		9.8884
<b>Total</b>	<b>1.1644</b>	<b>0.0618</b>	<b>5.3607</b>	<b>2.8000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0297</b>	<b>0.0297</b>	<b>0.0000</b>	<b>9.6568</b>	<b>9.6568</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>9.8884</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**

Santa Angelina Senior Apartment Homes - Orange 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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Santa Angelina Senior Apartment Homes - Orange County, Winter

**Santa Angelina Senior Apartment Homes**  
**Orange County, Winter**

**1.0 Project Characteristics**

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**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Place of Worship	3.97	1000sqft	0.09	3,974.00	0
Apartments Low Rise	65.00	Dwelling Unit	4.06	42,500.00	186

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	30
<b>Climate Zone</b>	8			<b>Operational Year</b>	2024
<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**

Santa Angelina Senior Apartment Homes - Orange County, Winter

Project Characteristics -

Land Use - Place of worship land use subtype used for parish, square feet supplied by client

Construction Phase - Construction schedule provided by client

Off-road Equipment -

Off-road Equipment - Equipment list provided by client

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip rates from Trip Generation Assessment - Fehr & Peers (weekend adjusted)

Woodstoves - No fireplaces or wood stoves

Area Coating -

Construction Off-road Equipment Mitigation - 26% based on collector Table XI-C

## Santa Angelina Senior Apartment Homes - Orange County, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	26
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	8.00	20.00
tblConstructionPhase	NumDays	5.00	44.00
tblConstructionPhase	NumDays	230.00	242.00
tblFireplaces	NumberGas	55.25	0.00
tblFireplaces	NumberNoFireplace	6.50	65.00
tblFireplaces	NumberWood	3.25	0.00
tblGrading	AcresOfGrading	30.00	4.00
tblLandUse	LandUseSquareFeet	3,970.00	3,974.00
tblLandUse	LandUseSquareFeet	65,000.00	42,500.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	744.00
tblWoodstoves	NumberCatalytic	3.25	0.00
tblWoodstoves	NumberNoncatalytic	3.25	0.00

## 2.0 Emissions Summary

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Santa Angelina Senior Apartment Homes - Orange County, Winter

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Energy	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
Mobile	0.4158	1.5262	5.3415	0.0219	2.2338	0.0156	2.2494	0.5973	0.0145	0.6118		2,228.8862	2,228.8862	0.0892		2,231.1164
<b>Total</b>	<b>1.6071</b>	<b>1.8196</b>	<b>10.8100</b>	<b>0.0236</b>	<b>2.2338</b>	<b>0.0640</b>	<b>2.2977</b>	<b>0.5973</b>	<b>0.0628</b>	<b>0.6602</b>	<b>0.0000</b>	<b>2,532.6380</b>	<b>2,532.6380</b>	<b>0.1041</b>	<b>5.3900e-003</b>	<b>2,536.8476</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	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Energy	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
Mobile	0.4158	1.5262	5.3415	0.0219	2.2338	0.0156	2.2494	0.5973	0.0145	0.6118		2,228.8862	2,228.8862	0.0892		2,231.1164
<b>Total</b>	<b>1.6071</b>	<b>1.8196</b>	<b>10.8100</b>	<b>0.0236</b>	<b>2.2338</b>	<b>0.0640</b>	<b>2.2977</b>	<b>0.5973</b>	<b>0.0628</b>	<b>0.6602</b>	<b>0.0000</b>	<b>2,532.6380</b>	<b>2,532.6380</b>	<b>0.1041</b>	<b>5.3900e-003</b>	<b>2,536.8476</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	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	1/1/2022	1/31/2022	5	21	
2	Grading	Grading	2/1/2022	2/28/2022	5	20	
3	Site Work - utilities/paving	Site Preparation	3/1/2022	4/29/2022	5	44	
4	Building Construction	Building Construction	5/1/2022	4/4/2023	5	242	
5	Architectural Coating	Architectural Coating	4/5/2023	4/28/2023	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 86,063; Residential Outdoor: 28,688; Non-Residential Indoor: 5,961; Non-Residential Outdoor: 1,987; Striped Parking Area: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

Santa Angelina Senior Apartment Homes - Orange County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Crushing/Proc. Equipment	1	6.00	85	0.78
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Loaders	1	8.00	203	0.36
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Work - utilities/paving	Excavators	1	6.00	158	0.38
Site Work - utilities/paving	Paving Equipment	1	4.00	132	0.36
Site Work - utilities/paving	Rubber Tired Loaders	2	4.00	203	0.36
Site Work - utilities/paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Scrapers	2	6.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Forklifts	1	8.00	89	0.20
Building Construction	Rubber Tired Loaders	1	7.00	203	0.36
Building Construction	Skid Steer Loaders	1	7.00	65	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	16.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Work - utilities/paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	744.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	48.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.1 Mitigation Measures Construction**

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

**3.2 Demolition - 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					
Fugitive Dust					0.1628	0.0000	0.1628	0.0246	0.0000	0.0246			0.0000			0.0000
Off-Road	1.3029	11.5112	14.6468	0.0265		0.5435	0.5435		0.5109	0.5109		2,555.9509	2,555.9509	0.6979		2,573.3985
<b>Total</b>	<b>1.3029</b>	<b>11.5112</b>	<b>14.6468</b>	<b>0.0265</b>	<b>0.1628</b>	<b>0.5435</b>	<b>0.7063</b>	<b>0.0246</b>	<b>0.5109</b>	<b>0.5355</b>		<b>2,555.9509</b>	<b>2,555.9509</b>	<b>0.6979</b>		<b>2,573.3985</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.2 Demolition - 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	5.3400e-003	0.1799	0.0560	5.6000e-004	0.0133	5.4000e-004	0.0138	3.6300e-003	5.1000e-004	4.1400e-003		62.3878	62.3878	6.7100e-003		62.5555
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1677	1.0600e-003	0.1687	0.0445	9.8000e-004	0.0455		143.8468	143.8468	2.9000e-003		143.9194
<b>Total</b>	<b>0.0634</b>	<b>0.2125</b>	<b>0.4478</b>	<b>2.0000e-003</b>	<b>0.1809</b>	<b>1.6000e-003</b>	<b>0.1825</b>	<b>0.0481</b>	<b>1.4900e-003</b>	<b>0.0496</b>		<b>206.2346</b>	<b>206.2346</b>	<b>9.6100e-003</b>		<b>206.4749</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					0.0635	0.0000	0.0635	9.6100e-003	0.0000	9.6100e-003			0.0000			0.0000
Off-Road	1.3029	11.5112	14.6468	0.0265		0.5435	0.5435		0.5109	0.5109	0.0000	2,555.9509	2,555.9509	0.6979		2,573.3984
<b>Total</b>	<b>1.3029</b>	<b>11.5112</b>	<b>14.6468</b>	<b>0.0265</b>	<b>0.0635</b>	<b>0.5435</b>	<b>0.6070</b>	<b>9.6100e-003</b>	<b>0.5109</b>	<b>0.5205</b>	<b>0.0000</b>	<b>2,555.9509</b>	<b>2,555.9509</b>	<b>0.6979</b>		<b>2,573.3984</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.2 Demolition - 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	5.3400e-003	0.1799	0.0560	5.6000e-004	0.0107	5.4000e-004	0.0112	2.9900e-003	5.1000e-004	3.5000e-003		62.3878	62.3878	6.7100e-003		62.5555
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0581	0.0326	0.3918	1.4400e-003	0.1298	1.0600e-003	0.1308	0.0352	9.8000e-004	0.0361		143.8468	143.8468	2.9000e-003		143.9194
<b>Total</b>	<b>0.0634</b>	<b>0.2125</b>	<b>0.4478</b>	<b>2.0000e-003</b>	<b>0.1404</b>	<b>1.6000e-003</b>	<b>0.1420</b>	<b>0.0382</b>	<b>1.4900e-003</b>	<b>0.0396</b>		<b>206.2346</b>	<b>206.2346</b>	<b>9.6100e-003</b>		<b>206.4749</b>

**3.3 Grading - 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					
Fugitive Dust					6.2342	0.0000	6.2342	3.3331	0.0000	3.3331			0.0000			0.0000
Off-Road	2.4492	26.1533	16.5321	0.0391		1.1073	1.1073		1.0187	1.0187		3,787.9634	3,787.9634	1.2251		3,818.5910
<b>Total</b>	<b>2.4492</b>	<b>26.1533</b>	<b>16.5321</b>	<b>0.0391</b>	<b>6.2342</b>	<b>1.1073</b>	<b>7.3415</b>	<b>3.3331</b>	<b>1.0187</b>	<b>4.3518</b>		<b>3,787.9634</b>	<b>3,787.9634</b>	<b>1.2251</b>		<b>3,818.5910</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.3 Grading - 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	0.2606	8.7839	2.7346	0.0272	0.6476	0.0262	0.6738	0.1773	0.0250	0.2023		3,046.0828	3,046.0828	0.3277		3,054.2745
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	0.0503	0.0283	0.3395	1.2500e-003	0.1453	9.2000e-004	0.1462	0.0385	8.5000e-004	0.0394		124.6672	124.6672	2.5200e-003		124.7301
<b>Total</b>	<b>0.3109</b>	<b>8.8121</b>	<b>3.0741</b>	<b>0.0285</b>	<b>0.7929</b>	<b>0.0271</b>	<b>0.8200</b>	<b>0.2158</b>	<b>0.0259</b>	<b>0.2417</b>		<b>3,170.7500</b>	<b>3,170.7500</b>	<b>0.3302</b>		<b>3,179.0046</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					2.4313	0.0000	2.4313	1.2999	0.0000	1.2999			0.0000			0.0000
Off-Road	2.4492	26.1533	16.5321	0.0391		1.1073	1.1073		1.0187	1.0187	0.0000	3,787.9634	3,787.9634	1.2251		3,818.5910
<b>Total</b>	<b>2.4492</b>	<b>26.1533</b>	<b>16.5321</b>	<b>0.0391</b>	<b>2.4313</b>	<b>1.1073</b>	<b>3.5386</b>	<b>1.2999</b>	<b>1.0187</b>	<b>2.3186</b>	<b>0.0000</b>	<b>3,787.9634</b>	<b>3,787.9634</b>	<b>1.2251</b>		<b>3,818.5910</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.3 Grading - 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	0.2606	8.7839	2.7346	0.0272	0.5198	0.0262	0.5459	0.1459	0.0250	0.1709		3,046.0828	3,046.0828	0.3277		3,054.2745
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	0.0503	0.0283	0.3395	1.2500e-003	0.1125	9.2000e-004	0.1134	0.0305	8.5000e-004	0.0313		124.6672	124.6672	2.5200e-003		124.7301
<b>Total</b>	<b>0.3109</b>	<b>8.8121</b>	<b>3.0741</b>	<b>0.0285</b>	<b>0.6322</b>	<b>0.0271</b>	<b>0.6593</b>	<b>0.1764</b>	<b>0.0259</b>	<b>0.2022</b>		<b>3,170.7500</b>	<b>3,170.7500</b>	<b>0.3302</b>		<b>3,179.0046</b>

**3.4 Site Work - utilities/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					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0264	10.2535	11.9594	0.0215		0.4786	0.4786		0.4404	0.4404		2,081.6268	2,081.6268	0.6732		2,098.4578
<b>Total</b>	<b>1.0264</b>	<b>10.2535</b>	<b>11.9594</b>	<b>0.0215</b>	<b>0.0000</b>	<b>0.4786</b>	<b>0.4786</b>	<b>0.0000</b>	<b>0.4404</b>	<b>0.4404</b>		<b>2,081.6268</b>	<b>2,081.6268</b>	<b>0.6732</b>		<b>2,098.4578</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.4 Site Work - utilities/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	0.0697	0.0391	0.4701	1.7300e-003	0.2012	1.2800e-003	0.2025	0.0534	1.1800e-003	0.0545		172.6162	172.6162	3.4800e-003		172.7033
<b>Total</b>	<b>0.0697</b>	<b>0.0391</b>	<b>0.4701</b>	<b>1.7300e-003</b>	<b>0.2012</b>	<b>1.2800e-003</b>	<b>0.2025</b>	<b>0.0534</b>	<b>1.1800e-003</b>	<b>0.0545</b>		<b>172.6162</b>	<b>172.6162</b>	<b>3.4800e-003</b>		<b>172.7033</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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0264	10.2535	11.9594	0.0215		0.4786	0.4786		0.4404	0.4404	0.0000	2,081.6268	2,081.6268	0.6732		2,098.4578
<b>Total</b>	<b>1.0264</b>	<b>10.2535</b>	<b>11.9594</b>	<b>0.0215</b>	<b>0.0000</b>	<b>0.4786</b>	<b>0.4786</b>	<b>0.0000</b>	<b>0.4404</b>	<b>0.4404</b>	<b>0.0000</b>	<b>2,081.6268</b>	<b>2,081.6268</b>	<b>0.6732</b>		<b>2,098.4578</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.4 Site Work - utilities/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	0.0697	0.0391	0.4701	1.7300e-003	0.1557	1.2800e-003	0.1570	0.0422	1.1800e-003	0.0434		172.6162	172.6162	3.4800e-003		172.7033
<b>Total</b>	<b>0.0697</b>	<b>0.0391</b>	<b>0.4701</b>	<b>1.7300e-003</b>	<b>0.1557</b>	<b>1.2800e-003</b>	<b>0.1570</b>	<b>0.0422</b>	<b>1.1800e-003</b>	<b>0.0434</b>		<b>172.6162</b>	<b>172.6162</b>	<b>3.4800e-003</b>		<b>172.7033</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	0.4295	4.5143	3.7074	8.8100e-003		0.1889	0.1889		0.1738	0.1738		853.3295	853.3295	0.2760		860.2291
<b>Total</b>	<b>0.4295</b>	<b>4.5143</b>	<b>3.7074</b>	<b>8.8100e-003</b>		<b>0.1889</b>	<b>0.1889</b>		<b>0.1738</b>	<b>0.1738</b>		<b>853.3295</b>	<b>853.3295</b>	<b>0.2760</b>		<b>860.2291</b>

Santa Angelina Senior Apartment Homes - Orange 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	0.0211	0.7079	0.2153	1.9000e-003	0.0511	1.4100e-003	0.0525	0.0147	1.3500e-003	0.0161		207.6714	207.6714	0.0171		208.0989
Worker	0.1859	0.1043	1.2537	4.6100e-003	0.5365	3.4100e-003	0.5399	0.1423	3.1400e-003	0.1454		460.3098	460.3098	9.2900e-003		460.5420
<b>Total</b>	<b>0.2069</b>	<b>0.8122</b>	<b>1.4690</b>	<b>6.5100e-003</b>	<b>0.5876</b>	<b>4.8200e-003</b>	<b>0.5925</b>	<b>0.1570</b>	<b>4.4900e-003</b>	<b>0.1615</b>		<b>667.9812</b>	<b>667.9812</b>	<b>0.0264</b>		<b>668.6410</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	0.4295	4.5143	3.7074	8.8100e-003		0.1889	0.1889		0.1738	0.1738	0.0000	853.3295	853.3295	0.2760		860.2291
<b>Total</b>	<b>0.4295</b>	<b>4.5143</b>	<b>3.7074</b>	<b>8.8100e-003</b>		<b>0.1889</b>	<b>0.1889</b>		<b>0.1738</b>	<b>0.1738</b>	<b>0.0000</b>	<b>853.3295</b>	<b>853.3295</b>	<b>0.2760</b>		<b>860.2291</b>

Santa Angelina Senior Apartment Homes - Orange 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	0.0211	0.7079	0.2153	1.9000e-003	0.0416	1.4100e-003	0.0430	0.0124	1.3500e-003	0.0137		207.6714	207.6714	0.0171		208.0989
Worker	0.1859	0.1043	1.2537	4.6100e-003	0.4153	3.4100e-003	0.4187	0.1125	3.1400e-003	0.1157		460.3098	460.3098	9.2900e-003		460.5420
<b>Total</b>	<b>0.2069</b>	<b>0.8122</b>	<b>1.4690</b>	<b>6.5100e-003</b>	<b>0.4569</b>	<b>4.8200e-003</b>	<b>0.4617</b>	<b>0.1249</b>	<b>4.4900e-003</b>	<b>0.1294</b>		<b>667.9812</b>	<b>667.9812</b>	<b>0.0264</b>		<b>668.6410</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3962	4.0391	3.6781	8.8100e-003		0.1627	0.1627		0.1497	0.1497		853.3223	853.3223	0.2760		860.2218
<b>Total</b>	<b>0.3962</b>	<b>4.0391</b>	<b>3.6781</b>	<b>8.8100e-003</b>		<b>0.1627</b>	<b>0.1627</b>		<b>0.1497</b>	<b>0.1497</b>		<b>853.3223</b>	<b>853.3223</b>	<b>0.2760</b>		<b>860.2218</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0160	0.5328	0.1979	1.8400e-003	0.0511	6.8000e-004	0.0518	0.0147	6.5000e-004	0.0154		201.4474	201.4474	0.0158		201.8427
Worker	0.1765	0.0947	1.1673	4.4400e-003	0.5365	3.3500e-003	0.5399	0.1423	3.0800e-003	0.1454		442.6360	442.6360	8.4200e-003		442.8465
<b>Total</b>	<b>0.1926</b>	<b>0.6276</b>	<b>1.3652</b>	<b>6.2800e-003</b>	<b>0.5876</b>	<b>4.0300e-003</b>	<b>0.5917</b>	<b>0.1570</b>	<b>3.7300e-003</b>	<b>0.1607</b>		<b>644.0834</b>	<b>644.0834</b>	<b>0.0242</b>		<b>644.6891</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	0.3962	4.0391	3.6781	8.8100e-003		0.1627	0.1627		0.1497	0.1497	0.0000	853.3223	853.3223	0.2760		860.2218
<b>Total</b>	<b>0.3962</b>	<b>4.0391</b>	<b>3.6781</b>	<b>8.8100e-003</b>		<b>0.1627</b>	<b>0.1627</b>		<b>0.1497</b>	<b>0.1497</b>	<b>0.0000</b>	<b>853.3223</b>	<b>853.3223</b>	<b>0.2760</b>		<b>860.2218</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0160	0.5328	0.1979	1.8400e-003	0.0416	6.8000e-004	0.0423	0.0124	6.5000e-004	0.0130		201.4474	201.4474	0.0158		201.8427
Worker	0.1765	0.0947	1.1673	4.4400e-003	0.4153	3.3500e-003	0.4186	0.1125	3.0800e-003	0.1156		442.6360	442.6360	8.4200e-003		442.8465
<b>Total</b>	<b>0.1926</b>	<b>0.6276</b>	<b>1.3652</b>	<b>6.2800e-003</b>	<b>0.4569</b>	<b>4.0300e-003</b>	<b>0.4609</b>	<b>0.1249</b>	<b>3.7300e-003</b>	<b>0.1286</b>		<b>644.0834</b>	<b>644.0834</b>	<b>0.0242</b>		<b>644.6891</b>

**3.6 Architectural Coating - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.8208					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.0125</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.6 Architectural Coating - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0368	0.0197	0.2432	9.2000e-004	0.1118	7.0000e-004	0.1125	0.0296	6.4000e-004	0.0303		92.2158	92.2158	1.7500e-003		92.2597
<b>Total</b>	<b>0.0368</b>	<b>0.0197</b>	<b>0.2432</b>	<b>9.2000e-004</b>	<b>0.1118</b>	<b>7.0000e-004</b>	<b>0.1125</b>	<b>0.0296</b>	<b>6.4000e-004</b>	<b>0.0303</b>		<b>92.2158</b>	<b>92.2158</b>	<b>1.7500e-003</b>		<b>92.2597</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	16.8208					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
<b>Total</b>	<b>17.0125</b>	<b>1.3030</b>	<b>1.8111</b>	<b>2.9700e-003</b>		<b>0.0708</b>	<b>0.0708</b>		<b>0.0708</b>	<b>0.0708</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0168</b>		<b>281.8690</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**3.6 Architectural Coating - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	0.0368	0.0197	0.2432	9.2000e-004	0.0865	7.0000e-004	0.0872	0.0234	6.4000e-004	0.0241		92.2158	92.2158	1.7500e-003		92.2597
<b>Total</b>	<b>0.0368</b>	<b>0.0197</b>	<b>0.2432</b>	<b>9.2000e-004</b>	<b>0.0865</b>	<b>7.0000e-004</b>	<b>0.0872</b>	<b>0.0234</b>	<b>6.4000e-004</b>	<b>0.0241</b>		<b>92.2158</b>	<b>92.2158</b>	<b>1.7500e-003</b>		<b>92.2597</b>

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

Santa Angelina Senior Apartment Homes - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4158	1.5262	5.3415	0.0219	2.2338	0.0156	2.2494	0.5973	0.0145	0.6118		2,228.886 2	2,228.886 2	0.0892		2,231.1164
Unmitigated	0.4158	1.5262	5.3415	0.0219	2.2338	0.0156	2.2494	0.5973	0.0145	0.6118		2,228.886 2	2,228.886 2	0.0892		2,231.1164

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	240.50	261.30	221.00	819,785	819,785
Place of Worship	19.02	21.64	76.42	58,847	58,847
Total	259.52	282.94	297.42	878,632	878,632

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
Apartments Low Rise	14.70	5.90	8.70	40.00	20.00	40.00	86	11	3
Place of Worship	16.60	8.40	6.90	0.00	95.00	5.00	64	25	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.565244	0.042904	0.209304	0.108392	0.014546	0.005773	0.026273	0.017831	0.001792	0.001509	0.004953	0.000602	0.000877
Place of Worship	0.565244	0.042904	0.209304	0.108392	0.014546	0.005773	0.026273	0.017831	0.001792	0.001509	0.004953	0.000602	0.000877

Santa Angelina Senior Apartment Homes - Orange County, Winter

**5.0 Energy Detail**

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Historical Energy Use: N

**5.1 Mitigation Measures Energy**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427
NaturalGas Unmitigated	0.0270	0.2317	0.1079	1.4700e-003		0.0186	0.0186		0.0186	0.0186		294.0951	294.0951	5.6400e-003	5.3900e-003	295.8427

Santa Angelina Senior Apartment Homes - Orange County, Winter

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	2272.26	0.0245	0.2094	0.0891	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3242	267.3242	5.1200e-003	4.9000e-003	268.9128
Place of Worship	227.552	2.4500e-003	0.0223	0.0187	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.7709	26.7709	5.1000e-004	4.9000e-004	26.9300
<b>Total</b>		<b>0.0270</b>	<b>0.2317</b>	<b>0.1079</b>	<b>1.4700e-003</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>		<b>294.0951</b>	<b>294.0951</b>	<b>5.6300e-003</b>	<b>5.3900e-003</b>	<b>295.8427</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	lb/day										lb/day					
Apartments Low Rise	2.27226	0.0245	0.2094	0.0891	1.3400e-003		0.0169	0.0169		0.0169	0.0169		267.3242	267.3242	5.1200e-003	4.9000e-003	268.9128
Place of Worship	0.227552	2.4500e-003	0.0223	0.0187	1.3000e-004		1.7000e-003	1.7000e-003		1.7000e-003	1.7000e-003		26.7709	26.7709	5.1000e-004	4.9000e-004	26.9300
<b>Total</b>		<b>0.0270</b>	<b>0.2317</b>	<b>0.1079</b>	<b>1.4700e-003</b>		<b>0.0186</b>	<b>0.0186</b>		<b>0.0186</b>	<b>0.0186</b>		<b>294.0951</b>	<b>294.0951</b>	<b>5.6300e-003</b>	<b>5.3900e-003</b>	<b>295.8427</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Santa Angelina Senior Apartment Homes - Orange County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884
Unmitigated	1.1644	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297	0.0000	9.6568	9.6568	9.2700e-003	0.0000	9.8884

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	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9202					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	0.1612	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297		9.6568	9.6568	9.2700e-003		9.8884
<b>Total</b>	<b>1.1644</b>	<b>0.0618</b>	<b>5.3607</b>	<b>2.8000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0297</b>	<b>0.0297</b>	<b>0.0000</b>	<b>9.6568</b>	<b>9.6568</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>9.8884</b>

Santa Angelina Senior Apartment Homes - Orange County, Winter

**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0830					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9202					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	0.1612	0.0618	5.3607	2.8000e-004		0.0297	0.0297		0.0297	0.0297		9.6568	9.6568	9.2700e-003		9.8884
<b>Total</b>	<b>1.1644</b>	<b>0.0618</b>	<b>5.3607</b>	<b>2.8000e-004</b>		<b>0.0297</b>	<b>0.0297</b>		<b>0.0297</b>	<b>0.0297</b>	<b>0.0000</b>	<b>9.6568</b>	<b>9.6568</b>	<b>9.2700e-003</b>	<b>0.0000</b>	<b>9.8884</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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Santa Angelina Senior Apartment Homes - Orange 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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