

APPENDIX D:

GREENHOUSE GAS EMISSIONS CALCULATIONS WORKSHEETS

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Juniper Grove Project - Antelope Valley APCD Air District, Annual

Juniper Grove Project
Antelope Valley APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	101.00	Dwelling Unit	206,990.00	142,014.00	289
Parking Lot	153.00	Space	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Project Data based on Site Plan dated 01/17/19

Construction Phase - Based on approximate 24-month construction timeline

Off-road Equipment - Equipment use on worst case day

Off-road Equipment - Equipment use on worst-case day

Off-road Equipment - Equipment use on worst-case day

Off-road Equipment - Equipment use on worst-case day

Grading - Estimated 4,000 cy soil export for site clearing phase

Trips and VMT - Assumes 14 cy haul truck capacity and average 20-miles distance to disposal site

Vehicle Trips - Trip rates based on Trip Generation Assessment

Woodstoves - No woodstoves or fireplaces proposed

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation -

Area Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	11,000.00	66.00
tblConstructionPhase	NumDays	155,000.00	430.00
tblConstructionPhase	NumDays	11,000.00	22.00
tblConstructionPhase	NumDays	6,000.00	10.00
tblConstructionPhase	PhaseEndDate	9/7/2818	7/7/2021
tblConstructionPhase	PhaseEndDate	5/11/2734	3/5/2021
tblConstructionPhase	PhaseEndDate	7/9/2776	4/6/2021
tblConstructionPhase	PhaseEndDate	10/25/2080	7/12/2019
tblConstructionPhase	PhaseStartDate	7/10/2776	4/7/2021

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tblConstructionPhase	PhaseStartDate	3/26/2140	7/15/2019
tblConstructionPhase	PhaseStartDate	5/12/2734	3/8/2021
tblConstructionPhase	PhaseStartDate	10/27/2057	7/1/2019
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	55.55	0.00
tblFireplaces	NumberNoFireplace	10.10	0.00
tblFireplaces	NumberWood	35.35	0.00
tblGrading	MaterialExported	0.00	4,000.00
tblLandUse	LandUseSquareFeet	101,000.00	142,014.00
tblLandUse	LandUseSquareFeet	61,200.00	0.00
tblLandUse	LotAcreage	2.66	206,990.00
tblLandUse	LotAcreage	1.38	0.00
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Cement and Mortar Mixers

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tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Pavers
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	1,000.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.50
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	500.00	571.00
tblVehicleTrips	ST_TR	6.39	5.23
tblVehicleTrips	SU_TR	5.86	4.79
tblVehicleTrips	WD_TR	6.65	5.44
tblWoodstoves	NumberCatalytic	5.05	0.00
tblWoodstoves	NumberNoncatalytic	5.05	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1663	1.4712	1.2504	2.6800e-003	0.0748	0.0738	0.1486	0.0271	0.0715	0.0986	0.0000	236.2043	236.2043	0.0265	0.0000	236.8661
2020	0.3017	2.5398	2.4901	5.0200e-003	0.0866	0.1294	0.2160	0.0232	0.1258	0.1490	0.0000	436.3557	436.3557	0.0477	0.0000	437.5474
2021	2.3002	0.6606	0.7203	1.3400e-003	0.0201	0.0350	0.0550	5.3700e-003	0.0335	0.0389	0.0000	116.6678	116.6678	0.0165	0.0000	117.0798
Maximum	2.3002	2.5398	2.4901	5.0200e-003	0.0866	0.1294	0.2160	0.0271	0.1258	0.1490	0.0000	436.3557	436.3557	0.0477	0.0000	437.5474

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1663	1.4712	1.2504	2.6800e-003	0.0587	0.0738	0.1325	0.0189	0.0715	0.0904	0.0000	236.2041	236.2041	0.0265	0.0000	236.8659
2020	0.3017	2.5398	2.4901	5.0200e-003	0.0866	0.1294	0.2160	0.0232	0.1258	0.1490	0.0000	436.3554	436.3554	0.0477	0.0000	437.5470
2021	2.3002	0.6606	0.7203	1.3400e-003	0.0201	0.0350	0.0550	5.3700e-003	0.0335	0.0389	0.0000	116.6676	116.6676	0.0165	0.0000	117.0797
Maximum	2.3002	2.5398	2.4901	5.0200e-003	0.0866	0.1294	0.2160	0.0232	0.1258	0.1490	0.0000	436.3554	436.3554	0.0477	0.0000	437.5470

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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	8.86	0.00	3.83	14.63	0.00	2.84	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2019	9-30-2019	0.8221	0.8221
2	10-1-2019	12-31-2019	0.7791	0.7791
3	1-1-2020	3-31-2020	0.7046	0.7046
4	4-1-2020	6-30-2020	0.7052	0.7052
5	7-1-2020	9-30-2020	0.7130	0.7130
6	10-1-2020	12-31-2020	0.7124	0.7124
7	1-1-2021	3-31-2021	0.5354	0.5354
8	4-1-2021	6-30-2021	2.2277	2.2277
9	7-1-2021	9-30-2021	0.1817	0.1817
		Highest	2.2277	2.2277

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2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576
Energy	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	202.4751	202.4751	6.7600e-003	2.4400e-003	203.3703
Mobile	0.1964	1.0257	2.4364	7.5200e-003	0.5795	6.0400e-003	0.5855	0.1554	5.6400e-003	0.1610	0.0000	690.4948	690.4948	0.0301	0.0000	691.2479
Stationary	9.8500e-003	0.0440	0.0251	5.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	4.5696	4.5696	6.4000e-004	0.0000	4.5856
Waste						0.0000	0.0000		0.0000	0.0000	9.4310	0.0000	9.4310	0.5574	0.0000	23.3648
Water						0.0000	0.0000		0.0000	0.0000	2.0877	41.9868	44.0745	0.2162	5.4200e-003	51.0942
Total	1.0132	1.1408	3.2411	8.0100e-003	0.5795	0.0167	0.5962	0.1554	0.0163	0.1717	11.5187	940.7541	952.2727	0.8122	7.8600e-003	974.9204

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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	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576
Energy	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	202.4751	202.4751	6.7600e-003	2.4400e-003	203.3703
Mobile	0.1964	1.0257	2.4364	7.5200e-003	0.5795	6.0400e-003	0.5855	0.1554	5.6400e-003	0.1610	0.0000	690.4948	690.4948	0.0301	0.0000	691.2479
Stationary	9.8500e-003	0.0440	0.0251	5.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	4.5696	4.5696	6.4000e-004	0.0000	4.5856
Waste						0.0000	0.0000		0.0000	0.0000	4.7155	0.0000	4.7155	0.2787	0.0000	11.6824
Water						0.0000	0.0000		0.0000	0.0000	1.6702	36.5266	38.1967	0.1731	4.3600e-003	43.8230
Total	1.0132	1.1408	3.2411	8.0100e-003	0.5795	0.0167	0.5962	0.1554	0.0163	0.1717	6.3857	935.2938	941.6795	0.4904	6.8000e-003	955.9668

	ROG	NOx	CO	SO2	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	44.56	0.58	1.11	39.62	13.49	1.94

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	Site Preparation	Site Preparation	7/1/2019	7/12/2019	5	10	
2	Building Construction	Building Construction	7/15/2019	3/5/2021	5	430	
3	Paving	Paving	3/8/2021	4/6/2021	5	22	
4	Architectural Coating	Architectural Coating	4/7/2021	7/7/2021	5	66	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 287,578; Residential Outdoor: 95,859; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cement and Mortar Mixers	2	8.00	9	0.56
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Pumps	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Rollers	2	8.00	80	0.38
Paving	Pavers	2	8.00	130	0.42
Architectural Coating	Air Compressors	1	6.00	78	0.48
Architectural Coating	Forklifts	2	8.00	89	0.20
Architectural Coating	Generator Sets	1	2.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	571.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	73.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

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3.2 Site Preparation - 2019

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					0.0292	0.0000	0.0292	0.0148	0.0000	0.0148	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4900e-003	0.0966	0.0392	9.0000e-005		4.3700e-003	4.3700e-003		4.0200e-003	4.0200e-003	0.0000	7.6788	7.6788	2.4300e-003	0.0000	7.7396
Total	8.4900e-003	0.0966	0.0392	9.0000e-005	0.0292	4.3700e-003	0.0336	0.0148	4.0200e-003	0.0188	0.0000	7.6788	7.6788	2.4300e-003	0.0000	7.7396

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	2.4800e-003	0.0823	0.0171	2.4000e-004	4.9000e-003	2.6000e-004	5.1600e-003	1.3500e-003	2.4000e-004	1.5900e-003	0.0000	22.9956	22.9956	8.8000e-004	0.0000	23.0176
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	1.8000e-004	1.5000e-004	1.6400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3084	0.3084	1.0000e-005	0.0000	0.3087
Total	2.6600e-003	0.0825	0.0188	2.4000e-004	5.2200e-003	2.6000e-004	5.4800e-003	1.4400e-003	2.4000e-004	1.6800e-003	0.0000	23.3040	23.3040	8.9000e-004	0.0000	23.3263

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3.2 Site Preparation - 2019

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					0.0132	0.0000	0.0132	6.6600e-003	0.0000	6.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4900e-003	0.0966	0.0392	9.0000e-005		4.3700e-003	4.3700e-003		4.0200e-003	4.0200e-003	0.0000	7.6788	7.6788	2.4300e-003	0.0000	7.7396
Total	8.4900e-003	0.0966	0.0392	9.0000e-005	0.0132	4.3700e-003	0.0175	6.6600e-003	4.0200e-003	0.0107	0.0000	7.6788	7.6788	2.4300e-003	0.0000	7.7396

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	2.4800e-003	0.0823	0.0171	2.4000e-004	4.9000e-003	2.6000e-004	5.1600e-003	1.3500e-003	2.4000e-004	1.5900e-003	0.0000	22.9956	22.9956	8.8000e-004	0.0000	23.0176
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	1.8000e-004	1.5000e-004	1.6400e-003	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3084	0.3084	1.0000e-005	0.0000	0.3087
Total	2.6600e-003	0.0825	0.0188	2.4000e-004	5.2200e-003	2.6000e-004	5.4800e-003	1.4400e-003	2.4000e-004	1.6800e-003	0.0000	23.3040	23.3040	8.9000e-004	0.0000	23.3263

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3.3 Building Construction - 2019

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	0.1325	1.1883	0.9901	1.7600e-003		0.0683	0.0683		0.0664	0.0664	0.0000	151.6001	151.6001	0.0209	0.0000	152.1213
Total	0.1325	1.1883	0.9901	1.7600e-003		0.0683	0.0683		0.0664	0.0664	0.0000	151.6001	151.6001	0.0209	0.0000	152.1213

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	2.8500e-003	0.0868	0.0200	2.0000e-004	4.4700e-003	5.3000e-004	5.0000e-003	1.2900e-003	5.1000e-004	1.8000e-003	0.0000	19.2910	19.2910	9.3000e-004	0.0000	19.3143
Worker	0.0198	0.0171	0.1824	3.8000e-004	0.0359	3.2000e-004	0.0362	9.5300e-003	2.9000e-004	9.8200e-003	0.0000	34.3304	34.3304	1.3700e-003	0.0000	34.3646
Total	0.0226	0.1038	0.2024	5.8000e-004	0.0403	8.5000e-004	0.0412	0.0108	8.0000e-004	0.0116	0.0000	53.6214	53.6214	2.3000e-003	0.0000	53.6789

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3.3 Building Construction - 2019

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	0.1325	1.1883	0.9901	1.7600e-003		0.0683	0.0683		0.0664	0.0664	0.0000	151.5999	151.5999	0.0209	0.0000	152.1211
Total	0.1325	1.1883	0.9901	1.7600e-003		0.0683	0.0683		0.0664	0.0664	0.0000	151.5999	151.5999	0.0209	0.0000	152.1211

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	2.8500e-003	0.0868	0.0200	2.0000e-004	4.4700e-003	5.3000e-004	5.0000e-003	1.2900e-003	5.1000e-004	1.8000e-003	0.0000	19.2910	19.2910	9.3000e-004	0.0000	19.3143
Worker	0.0198	0.0171	0.1824	3.8000e-004	0.0359	3.2000e-004	0.0362	9.5300e-003	2.9000e-004	9.8200e-003	0.0000	34.3304	34.3304	1.3700e-003	0.0000	34.3646
Total	0.0226	0.1038	0.2024	5.8000e-004	0.0403	8.5000e-004	0.0412	0.0108	8.0000e-004	0.0116	0.0000	53.6214	53.6214	2.3000e-003	0.0000	53.6789

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3.3 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2575	2.3371	2.0981	3.7900e-003		0.1280	0.1280		0.1245	0.1245	0.0000	323.5717	323.5717	0.0432	0.0000	324.6517
Total	0.2575	2.3371	2.0981	3.7900e-003		0.1280	0.1280		0.1245	0.1245	0.0000	323.5717	323.5717	0.0432	0.0000	324.6517

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	5.1500e-003	0.1699	0.0379	4.3000e-004	9.6000e-003	7.4000e-004	0.0103	2.7700e-003	7.1000e-004	3.4800e-003	0.0000	41.2211	41.2211	1.8600e-003	0.0000	41.2675
Worker	0.0391	0.0328	0.3540	7.9000e-004	0.0770	6.6000e-004	0.0777	0.0205	6.1000e-004	0.0211	0.0000	71.5630	71.5630	2.6100e-003	0.0000	71.6282
Total	0.0442	0.2027	0.3919	1.2200e-003	0.0866	1.4000e-003	0.0880	0.0232	1.3200e-003	0.0246	0.0000	112.7841	112.7841	4.4700e-003	0.0000	112.8957

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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	0.2575	2.3371	2.0981	3.7900e-003		0.1280	0.1280		0.1245	0.1245	0.0000	323.5713	323.5713	0.0432	0.0000	324.6513
Total	0.2575	2.3371	2.0981	3.7900e-003		0.1280	0.1280		0.1245	0.1245	0.0000	323.5713	323.5713	0.0432	0.0000	324.6513

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	5.1500e-003	0.1699	0.0379	4.3000e-004	9.6000e-003	7.4000e-004	0.0103	2.7700e-003	7.1000e-004	3.4800e-003	0.0000	41.2211	41.2211	1.8600e-003	0.0000	41.2675
Worker	0.0391	0.0328	0.3540	7.9000e-004	0.0770	6.6000e-004	0.0777	0.0205	6.1000e-004	0.0211	0.0000	71.5630	71.5630	2.6100e-003	0.0000	71.6282
Total	0.0442	0.2027	0.3919	1.2200e-003	0.0866	1.4000e-003	0.0880	0.0232	1.3200e-003	0.0246	0.0000	112.7841	112.7841	4.4700e-003	0.0000	112.8957

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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	0.0410	0.3735	0.3641	6.7000e-004		0.0194	0.0194		0.0189	0.0189	0.0000	56.8116	56.8116	7.3800e-003	0.0000	56.9961
Total	0.0410	0.3735	0.3641	6.7000e-004		0.0194	0.0194		0.0189	0.0189	0.0000	56.8116	56.8116	7.3800e-003	0.0000	56.9961

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6000e-004	0.0270	5.9000e-003	8.0000e-005	1.6900e-003	4.0000e-005	1.7300e-003	4.9000e-004	4.0000e-005	5.3000e-004	0.0000	7.2029	7.2029	3.1000e-004	0.0000	7.2106
Worker	6.4200e-003	5.2300e-003	0.0576	1.4000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.7000e-003	0.0000	12.2523	12.2523	4.2000e-004	0.0000	12.2629
Total	7.1800e-003	0.0322	0.0635	2.2000e-004	0.0152	1.5000e-004	0.0154	4.0800e-003	1.4000e-004	4.2300e-003	0.0000	19.4553	19.4553	7.3000e-004	0.0000	19.4735

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3.3 Building Construction - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.3735	0.3641	6.7000e-004		0.0194	0.0194		0.0189	0.0189	0.0000	56.8115	56.8115	7.3800e-003	0.0000	56.9960
Total	0.0410	0.3735	0.3641	6.7000e-004		0.0194	0.0194		0.0189	0.0189	0.0000	56.8115	56.8115	7.3800e-003	0.0000	56.9960

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6000e-004	0.0270	5.9000e-003	8.0000e-005	1.6900e-003	4.0000e-005	1.7300e-003	4.9000e-004	4.0000e-005	5.3000e-004	0.0000	7.2029	7.2029	3.1000e-004	0.0000	7.2106
Worker	6.4200e-003	5.2300e-003	0.0576	1.4000e-004	0.0135	1.1000e-004	0.0136	3.5900e-003	1.0000e-004	3.7000e-003	0.0000	12.2523	12.2523	4.2000e-004	0.0000	12.2629
Total	7.1800e-003	0.0322	0.0635	2.2000e-004	0.0152	1.5000e-004	0.0154	4.0800e-003	1.4000e-004	4.2300e-003	0.0000	19.4553	19.4553	7.3000e-004	0.0000	19.4735

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3.4 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4700e-003	0.0983	0.1041	1.6000e-004		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	13.9897	13.9897	4.5200e-003	0.0000	14.1028
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.4700e-003	0.0983	0.1041	1.6000e-004		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	13.9897	13.9897	4.5200e-003	0.0000	14.1028

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	4.2000e-004	3.4000e-004	3.7800e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8027	0.8027	3.0000e-005	0.0000	0.8034
Total	4.2000e-004	3.4000e-004	3.7800e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8027	0.8027	3.0000e-005	0.0000	0.8034

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3.4 Paving - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.4700e-003	0.0983	0.1041	1.6000e-004		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	13.9897	13.9897	4.5200e-003	0.0000	14.1028
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.4700e-003	0.0983	0.1041	1.6000e-004		5.2800e-003	5.2800e-003		4.8600e-003	4.8600e-003	0.0000	13.9897	13.9897	4.5200e-003	0.0000	14.1028

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	4.2000e-004	3.4000e-004	3.7800e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8027	0.8027	3.0000e-005	0.0000	0.8034
Total	4.2000e-004	3.4000e-004	3.7800e-003	1.0000e-005	8.9000e-004	1.0000e-005	8.9000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8027	0.8027	3.0000e-005	0.0000	0.8034

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3.5 Architectural Coating - 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					
Archit. Coating	2.2215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1547	0.1678	2.5000e-004		0.0100	0.0100		9.6000e-003	9.6000e-003	0.0000	21.9962	21.9962	3.7000e-003	0.0000	22.0887
Total	2.2403	0.1547	0.1678	2.5000e-004		0.0100	0.0100		9.6000e-003	9.6000e-003	0.0000	21.9962	21.9962	3.7000e-003	0.0000	22.0887

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	1.8900e-003	1.5400e-003	0.0170	4.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003	0.0000	3.6122	3.6122	1.2000e-004	0.0000	3.6153
Total	1.8900e-003	1.5400e-003	0.0170	4.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003	0.0000	3.6122	3.6122	1.2000e-004	0.0000	3.6153

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3.5 Architectural Coating - 2021

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.1547	0.1678	2.5000e-004		0.0100	0.0100		9.6000e-003	9.6000e-003	0.0000	21.9962	21.9962	3.7000e-003	0.0000	22.0886
Total	2.2403	0.1547	0.1678	2.5000e-004		0.0100	0.0100		9.6000e-003	9.6000e-003	0.0000	21.9962	21.9962	3.7000e-003	0.0000	22.0886

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	1.8900e-003	1.5400e-003	0.0170	4.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003	0.0000	3.6122	3.6122	1.2000e-004	0.0000	3.6153
Total	1.8900e-003	1.5400e-003	0.0170	4.0000e-005	3.9900e-003	3.0000e-005	4.0200e-003	1.0600e-003	3.0000e-005	1.0900e-003	0.0000	3.6122	3.6122	1.2000e-004	0.0000	3.6153

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1964	1.0257	2.4364	7.5200e-003	0.5795	6.0400e-003	0.5855	0.1554	5.6400e-003	0.1610	0.0000	690.4948	690.4948	0.0301	0.0000	691.2479
Unmitigated	0.1964	1.0257	2.4364	7.5200e-003	0.5795	6.0400e-003	0.5855	0.1554	5.6400e-003	0.1610	0.0000	690.4948	690.4948	0.0301	0.0000	691.2479

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	549.44	528.23	483.79	1,525,234	1,525,234
Parking Lot	0.00	0.00	0.00		
Total	549.44	528.23	483.79	1,525,234	1,525,234

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 Mid Rise	10.80	7.30	7.50	40.20	19.20	40.60	86	11	3
Parking Lot	9.50	7.30	7.30	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
Apartments Mid Rise	0.615376	0.037728	0.150170	0.105389	0.017165	0.005087	0.018058	0.036632	0.002196	0.001885	0.007444	0.001552	0.001318
Parking Lot	0.615376	0.037728	0.150170	0.105389	0.017165	0.005087	0.018058	0.036632	0.002196	0.001885	0.007444	0.001552	0.001318

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	130.2732	130.2732	5.3800e-003	1.1100e-003	130.7393
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	130.2732	130.2732	5.3800e-003	1.1100e-003	130.7393
NaturalGas Mitigated	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310
NaturalGas Unmitigated	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310

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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					
Apartments Mid Rise	1.35301e+006	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310

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					
Apartments Mid Rise	1.35301e+006	7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		7.3000e-003	0.0623	0.0265	4.0000e-004		5.0400e-003	5.0400e-003		5.0400e-003	5.0400e-003	0.0000	72.2019	72.2019	1.3800e-003	1.3200e-003	72.6310

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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			
Apartments Mid Rise	408865	130.2732	5.3800e-003	1.1100e-003	130.7393
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		130.2732	5.3800e-003	1.1100e-003	130.7393

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	408865	130.2732	5.3800e-003	1.1100e-003	130.7393
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		130.2732	5.3800e-003	1.1100e-003	130.7393

6.0 Area Detail

6.1 Mitigation Measures Area

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Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576
Unmitigated	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576

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	0.2222					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5546					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	0.0229	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576
Total	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576

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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	0.2222					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5546					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	0.0229	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576
Total	0.7997	8.6900e-003	0.7530	4.0000e-005		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	1.2277	1.2277	1.1900e-003	0.0000	1.2576

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	38.1967	0.1731	4.3600e-003	43.8230
Unmitigated	44.0745	0.2162	5.4200e-003	51.0942

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	6.58056 / 4.14861	44.0745	0.2162	5.4200e-003	51.0942
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		44.0745	0.2162	5.4200e-003	51.0942

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	5.26445 / 4.14861	38.1967	0.1731	4.3600e-003	43.8230
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		38.1967	0.1731	4.3600e-003	43.8230

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.7155	0.2787	0.0000	11.6824
Unmitigated	9.4310	0.5574	0.0000	23.3648

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	46.46	9.4310	0.5574	0.0000	23.3648
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		9.4310	0.5574	0.0000	23.3648

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	23.23	4.7155	0.2787	0.0000	11.6824
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		4.7155	0.2787	0.0000	11.6824

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
Emergency Generator	1	0.5	12	1000	0.73	Diesel

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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10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	9.8500e-003	0.0440	0.0251	5.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	4.5696	4.5696	6.4000e-004	0.0000	4.5856
Total	9.8500e-003	0.0440	0.0251	5.0000e-005		1.4500e-003	1.4500e-003		1.4500e-003	1.4500e-003	0.0000	4.5696	4.5696	6.4000e-004	0.0000	4.5856

11.0 Vegetation
