

3585 El Camino Real Mixed Use Project - Palo Alto - Santa Clara County, Annual

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Santa Clara County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	3.00	Dwelling Unit	0.14	4,191.00	7
General Office Building	2.50	1000sqft	0.00	2,500.00	8
Enclosed Parking with Elevator	11.00	Space	0.00	1,054.00	0
Parking Lot	3.00	Space	0.00	1,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 3 employees per 1,000 square feet is assumed for the office space

Construction Phase - Assumes a construction duration of 18 months

Demolition -

Vehicle Trips - Weekday/weekend trip rates for apartment units based on ITE Multifamily Housing (Low-rise), Land Use Code 221

Weekday trip rates for office, based on ITE Land Use Code 710, General Office

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	371.00
tblConstructionPhase	PhaseEndDate	9/16/2020	9/30/2021
tblConstructionPhase	PhaseEndDate	9/2/2020	9/16/2021
tblConstructionPhase	PhaseEndDate	9/9/2020	9/23/2021
tblConstructionPhase	PhaseStartDate	9/10/2020	9/24/2021
tblConstructionPhase	PhaseStartDate	9/3/2020	9/17/2021
tblLandUse	LandUseSquareFeet	3,000.00	4,191.00
tblLandUse	LandUseSquareFeet	4,400.00	1,054.00
tblLandUse	LotAcreage	0.08	0.14
tblLandUse	LotAcreage	0.06	0.00
tblLandUse	LotAcreage	0.10	0.00
tblLandUse	LotAcreage	0.03	0.00
tblLandUse	Population	9.00	7.00
tblLandUse	Population	0.00	8.00
tblVehicleTrips	ST_TR	6.39	5.44
tblVehicleTrips	SU_TR	5.86	5.44
tblVehicleTrips	WD_TR	6.65	5.44
tblVehicleTrips	WD_TR	11.03	9.74

2.0 Emissions Summary

2.1 Overall Construction
Unmitigated Construction

Year	ROG	NOx	CO	SO2	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					
2020	0.0875	0.8869	0.7486	1.2000e-003	5.5000e-003	0.0516	0.0571	1.6000e-003	0.0476	0.0492	0.0000	105.2680	105.2680	0.0316	0.0000	106.0581

2021	0.1186	0.7696	0.7062	1.1400e-003	3.9200e-003	0.0426	0.0465	1.0600e-003	0.0392	0.0402	0.0000	100.6994	100.6994	0.0308	0.0000	101.4703
Maximum	0.1186	0.8869	0.7486	1.2000e-003	5.5000e-003	0.0516	0.0571	1.6000e-003	0.0476	0.0492	0.0000	105.2680	105.2680	0.0316	0.0000	106.0581

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					
2020	0.0875	0.8869	0.7486	1.2000e-003	5.5000e-003	0.0516	0.0571	1.6000e-003	0.0476	0.0492	0.0000	105.2678	105.2678	0.0316	0.0000	106.0580
2021	0.1186	0.7696	0.7062	1.1400e-003	3.9200e-003	0.0426	0.0465	1.0600e-003	0.0392	0.0402	0.0000	100.6993	100.6993	0.0308	0.0000	101.4702
Maximum	0.1186	0.8869	0.7486	1.2000e-003	5.5000e-003	0.0516	0.0571	1.6000e-003	0.0476	0.0492	0.0000	105.2678	105.2678	0.0316	0.0000	106.0580

	ROG	NOx	CO	SO2	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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-30-2020	6-29-2020	0.3182	0.3182
2	6-30-2020	9-29-2020	0.3237	0.3237
3	9-30-2020	12-29-2020	0.3204	0.3204
4	12-30-2020	3-29-2021	0.2864	0.2864
5	3-30-2021	6-29-2021	0.2919	0.2919
6	6-30-2021	9-29-2021	0.3101	0.3101
		Highest	0.3237	0.3237

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	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387
Energy	3.6000e-004	3.2000e-003	2.1900e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	22.0563	22.0563	9.0000e-004	2.4000e-004	22.1500
Mobile	8.8000e-003	0.0369	0.1034	3.4000e-004	0.0306	3.0000e-004	0.0309	8.1900e-003	2.8000e-004	8.4600e-003	0.0000	31.2487	31.2487	1.0900e-003	0.0000	31.2759
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.8658
Water						0.0000	0.0000		0.0000	0.0000	0.2030	1.4099	1.6129	0.0209	5.1000e-004	2.2863
Total	0.0474	0.0405	0.1376	3.8000e-004	0.0306	2.0400e-003	0.0326	8.1900e-003	2.0200e-003	0.0102	1.0929	54.8078	55.9006	0.0677	7.6000e-004	57.8166

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	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387
Energy	3.6000e-004	3.2000e-003	2.1900e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	22.0563	22.0563	9.0000e-004	2.4000e-004	22.1500
Mobile	8.5800e-003	0.0354	0.0980	3.2000e-004	0.0284	2.8000e-004	0.0287	7.6100e-003	2.6000e-004	7.8700e-003	0.0000	29.1792	29.1792	1.0300e-003	0.0000	29.2049
Waste						0.0000	0.0000		0.0000	0.0000	0.7531	0.0000	0.7531	0.0445	0.0000	1.8658
Water						0.0000	0.0000		0.0000	0.0000	0.2030	1.4099	1.6129	0.0209	5.1000e-004	2.2863
Total	0.0471	0.0391	0.1322	3.6000e-004	0.0284	2.0200e-003	0.0304	7.6100e-003	2.0000e-003	9.6100e-003	1.0929	52.7382	53.8311	0.0676	7.6000e-004	55.7456

	ROG	NOx	CO	SO2	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	0.46	3.63	3.92	5.26	7.13	0.98	6.71	7.08	0.99	5.78	0.00	3.78	3.70	0.09	0.00	3.58

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	3/30/2020	4/10/2020	5	10	
2	Site Preparation	Site Preparation	4/11/2020	4/13/2020	5	1	
3	Grading	Grading	4/14/2020	4/15/2020	5	2	
4	Building Construction	Building Construction	4/16/2020	9/16/2021	5	371	
5	Paving	Paving	9/17/2021	9/23/2021	5	5	
6	Architectural Coating	Architectural Coating	9/24/2021	9/30/2021	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 8,487; Residential Outdoor: 2,829; Non-Residential Indoor: 3,750; Non-Residential Outdoor: 1,250; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	4	10.00	0.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0394	0.0381	6.0000e-005		2.3400e-003	2.3400e-003		2.2300e-003	2.2300e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	4.3400e-003	0.0394	0.0381	6.0000e-005	3.9000e-004	2.3400e-003	2.7300e-003	6.0000e-005	2.2300e-003	2.2900e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284

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	2.0000e-005	5.8000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1525	0.1525	1.0000e-005	0.0000	0.1527
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	1.7000e-004	1.2000e-004	1.2500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3401	0.3401	1.0000e-005	0.0000	0.3403
Total	1.9000e-004	7.0000e-004	1.3700e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4926	0.4926	2.0000e-005	0.0000	0.4930

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					3.9000e-004	0.0000	3.9000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3400e-003	0.0394	0.0381	6.0000e-005		2.3400e-003	2.3400e-003		2.2300e-003	2.2300e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284
Total	4.3400e-003	0.0394	0.0381	6.0000e-005	3.9000e-004	2.3400e-003	2.7300e-003	6.0000e-005	2.2300e-003	2.2900e-003	0.0000	5.2038	5.2038	9.8000e-004	0.0000	5.2284

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	2.0000e-005	5.8000e-004	1.2000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1525	0.1525	1.0000e-005	0.0000	0.1527

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	1.7000e-004	1.2000e-004	1.2500e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3401	0.3401	1.0000e-005	0.0000	0.3403
Total	1.9000e-004	7.0000e-004	1.3700e-003	0.0000	4.3000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.4926	0.4926	2.0000e-005	0.0000	0.4930

3.3 Site Preparation - 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					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	4.2200e-003	2.0500e-003	0.0000		1.7000e-004	1.7000e-004		1.5000e-004	1.5000e-004	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314
Total	3.4000e-004	4.2200e-003	2.0500e-003	0.0000	2.7000e-004	1.7000e-004	4.4000e-004	3.0000e-005	1.5000e-004	1.8000e-004	0.0000	0.4280	0.4280	1.4000e-004	0.0000	0.4314

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	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0170	0.0170	0.0000	0.0000	0.0170
Total	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0170	0.0170	0.0000	0.0000	0.0170

Mitigated Construction On-Site

Off-Road	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.5000e-004	4.5000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005	7.5000e-004	4.7000e-004	1.2200e-003	4.1000e-004	4.5000e-004	8.6000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0680	0.0680	0.0000	0.0000	0.0681
Total	3.0000e-005	2.0000e-005	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0680	0.0680	0.0000	0.0000	0.0681

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005		4.7000e-004	4.7000e-004		4.5000e-004	4.5000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457
Total	8.7000e-004	7.8700e-003	7.6200e-003	1.0000e-005	7.5000e-004	4.7000e-004	1.2200e-003	4.1000e-004	4.5000e-004	8.6000e-004	0.0000	1.0408	1.0408	2.0000e-004	0.0000	1.0457

Mitigated Construction Off-Site

Vendor	3.7000e-004	0.0106	2.8200e-003	3.0000e-005	6.1000e-004	5.0000e-005	6.6000e-004	1.8000e-004	5.0000e-005	2.3000e-004	0.0000	2.4314	2.4314	1.1000e-004	0.0000	2.4342
Worker	1.2400e-003	8.9000e-004	9.3100e-003	3.0000e-005	2.9500e-003	2.0000e-005	2.9700e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.5302	2.5302	6.0000e-005	0.0000	2.5317
Total	1.6100e-003	0.0115	0.0121	6.0000e-005	3.5600e-003	7.0000e-005	3.6300e-003	9.6000e-004	7.0000e-005	1.0300e-003	0.0000	4.9616	4.9616	1.7000e-004	0.0000	4.9659

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	0.0801	0.8233	0.6870	1.0600e-003		0.0486	0.0486		0.0447	0.0447	0.0000	93.0561	93.0561	0.0301	0.0000	93.8086
Total	0.0801	0.8233	0.6870	1.0600e-003		0.0486	0.0486		0.0447	0.0447	0.0000	93.0561	93.0561	0.0301	0.0000	93.8086

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7000e-004	0.0106	2.8200e-003	3.0000e-005	6.1000e-004	5.0000e-005	6.6000e-004	1.8000e-004	5.0000e-005	2.3000e-004	0.0000	2.4314	2.4314	1.1000e-004	0.0000	2.4342
Worker	1.2400e-003	8.9000e-004	9.3100e-003	3.0000e-005	2.9500e-003	2.0000e-005	2.9700e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.5302	2.5302	6.0000e-005	0.0000	2.5317
Total	1.6100e-003	0.0115	0.0121	6.0000e-005	3.5600e-003	7.0000e-005	3.6300e-003	9.6000e-004	7.0000e-005	1.0300e-003	0.0000	4.9616	4.9616	1.7000e-004	0.0000	4.9659

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0717	0.7386	0.6719	1.0500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	92.5759	92.5759	0.0299	0.0000	93.3244
Total	0.0717	0.7386	0.6719	1.0500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	92.5759	92.5759	0.0299	0.0000	93.3244

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.5100e-003	2.5300e-003	2.0000e-005	6.1000e-004	2.0000e-005	6.3000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.3960	2.3960	1.0000e-004	0.0000	2.3986
Worker	1.1400e-003	7.9000e-004	8.4600e-003	3.0000e-005	2.9300e-003	2.0000e-005	2.9500e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4292	2.4292	6.0000e-005	0.0000	2.4306
Total	1.4400e-003	0.0103	0.0110	5.0000e-005	3.5400e-003	4.0000e-005	3.5800e-003	9.6000e-004	4.0000e-005	1.0000e-003	0.0000	4.8252	4.8252	1.6000e-004	0.0000	4.8292

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	0.0717	0.7386	0.6719	1.0500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	92.5758	92.5758	0.0299	0.0000	93.3243

Total	0.0717	0.7386	0.6719	1.0500e-003		0.0414	0.0414		0.0381	0.0381	0.0000	92.5758	92.5758	0.0299	0.0000	93.3243
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	9.5100e-003	2.5300e-003	2.0000e-005	6.1000e-004	2.0000e-005	6.3000e-004	1.8000e-004	2.0000e-005	2.0000e-004	0.0000	2.3960	2.3960	1.0000e-004	0.0000	2.3986
Worker	1.1400e-003	7.9000e-004	8.4600e-003	3.0000e-005	2.9300e-003	2.0000e-005	2.9500e-003	7.8000e-004	2.0000e-005	8.0000e-004	0.0000	2.4292	2.4292	6.0000e-005	0.0000	2.4306
Total	1.4400e-003	0.0103	0.0110	5.0000e-005	3.5400e-003	4.0000e-005	3.5800e-003	9.6000e-004	4.0000e-005	1.0000e-003	0.0000	4.8252	4.8252	1.6000e-004	0.0000	4.8292

3.6 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	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652

Unmitigated Construction Off-Site

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	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956
Total	1.4000e-004	1.0000e-004	1.0300e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2954	0.2954	1.0000e-005	0.0000	0.2956

3.7 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	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	0.0436	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394

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	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0430					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	0.0436	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394

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	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164
Total	1.0000e-005	1.0000e-005	6.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0164	0.0164	0.0000	0.0000	0.0164

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive 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	8.5800e-003	0.0354	0.0980	3.2000e-004	0.0284	2.8000e-004	0.0287	7.6100e-003	2.6000e-004	7.8700e-003	0.0000	29.1792	29.1792	1.0300e-003	0.0000	29.2049
Unmitigated	8.8000e-003	0.0369	0.1034	3.4000e-004	0.0306	3.0000e-004	0.0309	8.1900e-003	2.8000e-004	8.4600e-003	0.0000	31.2487	31.2487	1.0900e-003	0.0000	31.2759

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	16.32	16.32	16.32	37,693	35,016
General Office Building	24.35	6.15	2.63	44,560	41,396
Enclosed Parking with Elevator	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	40.67	22.47	18.95	82,253	76,412

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
General Office Building	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761
Enclosed Parking with Elevator	0.607897	0.037434	0.184004	0.107261	0.014919	0.004991	0.012447	0.020659	0.002115	0.001554	0.005334	0.000623	0.000761

Total		3.6000e-004	3.2000e-003	2.2000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5670	3.5670	7.0000e-005	7.0000e-005	3.5882
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Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	25918.4	1.4000e-004	1.1900e-003	5.1000e-004	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.3831	1.3831	3.0000e-005	3.0000e-005	1.3913
Enclosed Parking with Elevator	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
General Office Building	40925	2.2000e-004	2.0100e-003	1.6900e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.1839	2.1839	4.0000e-005	4.0000e-005	2.1969
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		3.6000e-004	3.2000e-003	2.2000e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5670	3.5670	7.0000e-005	7.0000e-005	3.5882

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	12385.1	3.6030	1.6000e-004	3.0000e-005	3.6171
Enclosed Parking with Elevator	6176.44	1.7968	8.0000e-005	2.0000e-005	1.8038
General Office Building	44575	12.9674	5.9000e-004	1.2000e-004	13.0182
Parking Lot	420	0.1222	1.0000e-005	0.0000	0.1227
Total		18.4893	8.4000e-004	1.7000e-004	18.5618

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	12385.1	3.6030	1.6000e-004	3.0000e-005	3.6171
Enclosed Parking with Elevator	6176.44	1.7968	8.0000e-005	2.0000e-005	1.8038
General Office Building	44575	12.9674	5.9000e-004	1.2000e-004	13.0182
Parking Lot	420	0.1222	1.0000e-005	0.0000	0.1227
Total		18.4893	8.4000e-004	1.7000e-004	18.5618

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387
Unmitigated	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4900e-003	1.4900e-003		1.4900e-003	1.4900e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387

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	4.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.9200e-003	1.6000e-004	9.5300e-003	2.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.1368	0.0562	0.1930	2.2000e-004	1.0000e-005	0.2011
Landscaping	6.9000e-004	2.6000e-004	0.0225	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0367	0.0367	4.0000e-005	0.0000	0.0376
Total	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387

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	4.3000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0263					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.9200e-003	1.6000e-004	9.5300e-003	2.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003	0.1368	0.0562	0.1930	2.2000e-004	1.0000e-005	0.2011
Landscaping	6.9000e-004	2.6000e-004	0.0225	0.0000		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	0.0367	0.0367	4.0000e-005	0.0000	0.0376
Total	0.0382	4.2000e-004	0.0320	2.0000e-005		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.1368	0.0929	0.2296	2.6000e-004	1.0000e-005	0.2387

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.6129	0.0209	5.1000e-004	2.2863
Unmitigated	1.6129	0.0209	5.1000e-004	2.2863

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.195462 / 0.123226	0.4952	6.3900e-003	1.5000e-004	0.7009
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.6129	0.0209	5.0000e-004	2.2863

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.195462 / 0.123226	0.4952	6.3900e-003	1.5000e-004	0.7009
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0.444334 / 0.272334	1.1177	0.0145	3.5000e-004	1.5854
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1.6129	0.0209	5.0000e-004	2.2863

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7531	0.0445	0.0000	1.8658
Unmitigated	0.7531	0.0445	0.0000	1.8658

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Apartments Mid Rise	1.38	0.2801	0.0166	0.0000	0.6940
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.7531	0.0445	0.0000	1.8658

Mitigated

Land Use	Waste Disposed tons	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Apartments Mid Rise	1.38	0.2801	0.0166	0.0000	0.6940
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	2.33	0.4730	0.0280	0.0000	1.1718
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.7531	0.0445	0.0000	1.8658

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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11.0 Vegetation
