Appendix A – Air Quality Modeling

Greenville Plaza

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	60.00	Space	0.54	24,000.00	0
Fast Food Restaurant with Drive Thru	3.40	1000sqft	0.08	3,400.00	0
Automobile Care Center	0.77	1000sqft	0.02	768.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,425.00	0
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan, project description, and TIA (Aliquot). Fast food includes drive-through next to market and potential sf in retail (strip mall)

Construction Phase - Construction phases adjusted for anticipated 1 year schedule. Construction and architectural coating are assumed to occur concurrently.

Trips and VMT - Material will be hauled to site 10 miles away per project description.

Grading - Total project site =2.52 acres, assumes multiple passes. 28,000 cubic yards export per applicant.

Vehicle Trips - TIA combined trips from convenience store and fuel center (Convenience Market with Gas Pumps) and car wash (Auto Care Center). Trip rates calculated from AM and PM peak hour trips in TIA.

Energy Use - Car wash (Auto Care Center) electricity use based on industry average 4.69 khw/vehicle and natural gas use based on 15.79 KBtu/vehicle.

Water And Wastewater - Water/wastewater per subsection 4.19, Utilities, in Initial Study, which assumes 73% reclaimed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	90.00
tblConstructionPhase	NumDays	100.00	150.00
tblConstructionPhase	NumDays	2.00	80.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	10.00
tblEnergyUse	NT24E	3.70	86.87
tblEnergyUse	NT24NG	6.67	149.70
tblEnergyUse	T24E	1.48	0.00
tblEnergyUse	T24NG	19.71	0.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	28,000.00
tblLandUse	LandUseSquareFeet	770.00	768.00
tblLandUse	LandUseSquareFeet	1,694.10	4,425.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	ST_TR	23.72	0.00

tblVehicleTrips	ST_TR	204.47	101.10
tblVehicleTrips	ST_TR	722.03	221.20
tblVehicleTrips	ST_TR	42.04	25.50
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	166.88	101.10
tblVehicleTrips	SU_TR	542.72	221.20
tblVehicleTrips	SU_TR	20.43	25.50
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	542.60	101.10
tblVehicleTrips	WD_TR	496.12	221.20
tblVehicleTrips	WD_TR	44.32	25.50
tblWater	IndoorWaterUseRate	72,442.45	146,000.00
tblWater	OutdoorWaterUseRate	44,400.21	0.00

2.0 Emissions Summary

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					
2021	0.1934	1.4006	1.0889	2.6000e-003	0.0685	0.0583	0.1268	0.0259	0.0546	0.0805	0.0000	235.7204	235.7204	0.0415	0.0000	236.7588
Maximum	**0.1934**	**1.4006**	**1.0889**	**2.6000e-003**	**0.0685**	**0.0583**	**0.1268**	**0.0259**	**0.0546**	**0.0805**	**0.0000**	**235.7204**	**235.7204**	**0.0415**	**0.0000**	**236.7588**

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					
2021	0.1934	1.4006	1.0889	2.6000e-003	0.0480	0.0583	0.1063	0.0163	0.0546	0.0709	0.0000	235.7203	235.7203	0.0415	0.0000	236.7586
Maximum	**0.1934**	**1.4006**	**1.0889**	**2.6000e-003**	**0.0480**	**0.0583**	**0.1063**	**0.0163**	**0.0546**	**0.0709**	**0.0000**	**235.7203**	**235.7203**	**0.0415**	**0.0000**	**236.7586**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**29.93**	**0.00**	**16.16**	**36.94**	**0.00**	**11.88**	**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	**1-1-2021**	**3-31-2021**	0.8476	0.8476
2	**4-1-2021**	**6-30-2021**	0.5143	0.5143
3	**7-1-2021**	**9-30-2021**	0.2247	0.2247
		Highest	0.8476	0.8476

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	0.0579	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Energy	4.5400e-003	0.0413	0.0347	2.5000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	126.0219	126.0219	4.5300e-003	1.5800e-003	126.6066
Mobile	0.4189	2.5289	3.0759	8.9200e-003	0.5650	8.5900e-003	0.5736	0.1519	8.0600e-003	0.1599	0.0000	825.8521	825.8521	0.0569	0.0000	827.2754
Waste						0.0000	0.0000		0.0000	0.0000	9.3985	0.0000	9.3985	0.5554	0.0000	23.2843
Water						0.0000	0.0000		0.0000	0.0000	0.5075	2.8486	3.3561	0.0523	1.2600e-003	5.0373
Total	**0.4813**	**2.5702**	**3.1113**	**9.1700e-003**	**0.5650**	**0.0117**	**0.5767**	**0.1519**	**0.0112**	**0.1631**	**9.9060**	**954.7239**	**964.6300**	**0.6692**	**2.8400e-003**	**982.2052**

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	0.0579	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Energy	4.5400e-003	0.0413	0.0347	2.5000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	126.0219	126.0219	4.5300e-003	1.5800e-003	126.6066
Mobile	0.4189	2.5289	3.0759	8.9200e-003	0.5650	8.5900e-003	0.5736	0.1519	8.0600e-003	0.1599	0.0000	825.8521	825.8521	0.0569	0.0000	827.2754
Waste						0.0000	0.0000		0.0000	0.0000	9.3985	0.0000	9.3985	0.5554	0.0000	23.2843
Water						0.0000	0.0000		0.0000	0.0000	0.5075	2.8486	3.3561	0.0523	1.2600e-003	5.0373
Total	**0.4813**	**2.5702**	**3.1113**	**9.1700e-003**	**0.5650**	**0.0117**	**0.5767**	**0.1519**	**0.0112**	**0.1631**	**9.9060**	**954.7239**	**964.6300**	**0.6692**	**2.8400e-003**	**982.2052**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**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	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/2/2021	4/23/2021	5	80	
3	Building Construction	Building Construction	1/6/2021	8/3/2021	5	150	
4	Paving	Paving	5/26/2021	6/8/2021	5	10	
5	Architectural Coating	Architectural Coating	6/2/2021	10/5/2021	5	90	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,890; Non-Residential Outdoor: 6,297; Striped Parking Area: 1,440 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	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
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	3,500.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	14.00	6.00	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	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					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	3.2000e-003	0.0391	0.0201	5.0000e-005		1.5000e-003	1.5000e-003		1.3800e-003	1.3800e-003	0.0000	4.2755	4.2755	1.3800e-003	0.0000	4.3101
Total	**3.2000e-003**	**0.0391**	**0.0201**	**5.0000e-005**	**2.7000e-004**	**1.5000e-003**	**1.7700e-003**	**3.0000e-005**	**1.3800e-003**	**1.4100e-003**	**0.0000**	**4.2755**	**4.2755**	**1.3800e-003**	**0.0000**	**4.3101**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1696	0.1696	0.0000	0.0000	0.1697
Total	**8.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1696**	**0.1696**	**0.0000**	**0.0000**	**0.1697**

3.2 Site Preparation - 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					
Fugitive Dust					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-003	0.0391	0.0201	5.0000e-005		1.5000e-003	1.5000e-003		1.3800e-003	1.3800e-003	0.0000	4.2755	4.2755	1.3800e-003	0.0000	4.3101
Total	**3.2000e-003**	**0.0391**	**0.0201**	**5.0000e-005**	**1.2000e-004**	**1.5000e-003**	**1.6200e-003**	**1.0000e-005**	**1.3800e-003**	**1.3900e-003**	**0.0000**	**4.2755**	**4.2755**	**1.3800e-003**	**0.0000**	**4.3101**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.0000e-005	6.0000e-005	6.0000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1696	0.1696	0.0000	0.0000	0.1697
Total	**8.0000e-005**	**6.0000e-005**	**6.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1696**	**0.1696**	**0.0000**	**0.0000**	**0.1697**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0370	0.0000	0.0370	0.0174	0.0000	0.0174	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.2901	0.3028	4.8000e-004		0.0163	0.0163		0.0155	0.0155	0.0000	41.6374	41.6374	7.7600e-003	0.0000	41.8314
Total	**0.0319**	**0.2901**	**0.3028**	**4.8000e-004**	**0.0370**	**0.0163**	**0.0533**	**0.0174**	**0.0155**	**0.0329**	**0.0000**	**41.6374**	**41.6374**	**7.7600e-003**	**0.0000**	**41.8314**

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	8.5100e-003	0.3182	0.0533	7.8000e-004	0.0148	7.6000e-004	0.0156	4.0800e-003	7.3000e-004	4.8100e-003	0.0000	75.2375	75.2375	5.0400e-003	0.0000	75.3634
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	1.2800e-003	9.1000e-004	9.5300e-003	3.0000e-005	3.1600e-003	2.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.7139	2.7139	6.0000e-005	0.0000	2.7155
Total	**9.7900e-003**	**0.3191**	**0.0628**	**8.1000e-004**	**0.0180**	**7.8000e-004**	**0.0188**	**4.9200e-003**	**7.5000e-004**	**5.6700e-003**	**0.0000**	**77.9513**	**77.9513**	**5.1000e-003**	**0.0000**	**78.0789**

3.3 Grading - 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					
Fugitive Dust					0.0167	0.0000	0.0167	7.8100e-003	0.0000	7.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.2901	0.3028	4.8000e-004		0.0163	0.0163		0.0155	0.0155	0.0000	41.6373	41.6373	7.7600e-003	0.0000	41.8313
Total	**0.0319**	**0.2901**	**0.3028**	**4.8000e-004**	**0.0167**	**0.0163**	**0.0329**	**7.8100e-003**	**0.0155**	**0.0234**	**0.0000**	**41.6373**	**41.6373**	**7.7600e-003**	**0.0000**	**41.8313**

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	8.5100e-003	0.3182	0.0533	7.8000e-004	0.0148	7.6000e-004	0.0156	4.0800e-003	7.3000e-004	4.8100e-003	0.0000	75.2375	75.2375	5.0400e-003	0.0000	75.3634
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	1.2800e-003	9.1000e-004	9.5300e-003	3.0000e-005	3.1600e-003	2.0000e-005	3.1800e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.7139	2.7139	6.0000e-005	0.0000	2.7155
Total	**9.7900e-003**	**0.3191**	**0.0628**	**8.1000e-004**	**0.0180**	**7.8000e-004**	**0.0188**	**4.9200e-003**	**7.5000e-004**	**5.6700e-003**	**0.0000**	**77.9513**	**77.9513**	**5.1000e-003**	**0.0000**	**78.0789**

3.4 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	0.0581	0.5989	0.5448	8.5000e-004		0.0336	0.0336		0.0309	0.0309	0.0000	75.0615	75.0615	0.0243	0.0000	75.6685
Total	**0.0581**	**0.5989**	**0.5448**	**8.5000e-004**		**0.0336**	**0.0336**		**0.0309**	**0.0309**	**0.0000**	**75.0615**	**75.0615**	**0.0243**	**0.0000**	**75.6685**

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	1.3900e-003	0.0481	0.0102	1.2000e-004	2.9600e-003	1.0000e-004	3.0600e-003	8.5000e-004	1.0000e-004	9.5000e-004	0.0000	11.7887	11.7887	6.5000e-004	0.0000	11.8049
Worker	3.3500e-003	2.3900e-003	0.0250	8.0000e-005	8.3000e-003	6.0000e-005	8.3600e-003	2.2100e-003	5.0000e-005	2.2600e-003	0.0000	7.1240	7.1240	1.7000e-004	0.0000	7.1282
Total	**4.7400e-003**	**0.0505**	**0.0352**	**2.0000e-004**	**0.0113**	**1.6000e-004**	**0.0114**	**3.0600e-003**	**1.5000e-004**	**3.2100e-003**	**0.0000**	**18.9126**	**18.9126**	**8.2000e-004**	**0.0000**	**18.9331**

3.4 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	0.0581	0.5989	0.5448	8.5000e-004		0.0336	0.0336		0.0309	0.0309	0.0000	75.0615	75.0615	0.0243	0.0000	75.6684
Total	**0.0581**	**0.5989**	**0.5448**	**8.5000e-004**		**0.0336**	**0.0336**		**0.0309**	**0.0309**	**0.0000**	**75.0615**	**75.0615**	**0.0243**	**0.0000**	**75.6684**

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	1.3900e-003	0.0481	0.0102	1.2000e-004	2.9600e-003	1.0000e-004	3.0600e-003	8.5000e-004	1.0000e-004	9.5000e-004	0.0000	11.7887	11.7887	6.5000e-004	0.0000	11.8049
Worker	3.3500e-003	2.3900e-003	0.0250	8.0000e-005	8.3000e-003	6.0000e-005	8.3600e-003	2.2100e-003	5.0000e-005	2.2600e-003	0.0000	7.1240	7.1240	1.7000e-004	0.0000	7.1282
Total	**4.7400e-003**	**0.0505**	**0.0352**	**2.0000e-004**	**0.0113**	**1.6000e-004**	**0.0114**	**3.0600e-003**	**1.5000e-004**	**3.2100e-003**	**0.0000**	**18.9126**	**18.9126**	**8.2000e-004**	**0.0000**	**18.9331**

3.5 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	3.6100e-003	0.0336	0.0355	6.0000e-005		1.7700e-003	1.7700e-003		1.6400e-003	1.6400e-003	0.0000	4.6962	4.6962	1.3700e-003	0.0000	4.7304
Paving	7.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3200e-003**	**0.0336**	**0.0355**	**6.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**4.6962**	**4.6962**	**1.3700e-003**	**0.0000**	**4.7304**

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	2.9000e-004	2.0000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6106	0.6106	1.0000e-005	0.0000	0.6110
Total	**2.9000e-004**	**2.0000e-004**	**2.1500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6106**	**0.6106**	**1.0000e-005**	**0.0000**	**0.6110**

3.5 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	3.6100e-003	0.0336	0.0355	6.0000e-005		1.7700e-003	1.7700e-003		1.6400e-003	1.6400e-003	0.0000	4.6962	4.6962	1.3700e-003	0.0000	4.7304
Paving	7.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.3200e-003**	**0.0336**	**0.0355**	**6.0000e-005**		**1.7700e-003**	**1.7700e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**4.6962**	**4.6962**	**1.3700e-003**	**0.0000**	**4.7304**

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	2.9000e-004	2.0000e-004	2.1500e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.6106	0.6106	1.0000e-005	0.0000	0.6110
Total	**2.9000e-004**	**2.0000e-004**	**2.1500e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.6106**	**0.6106**	**1.0000e-005**	**0.0000**	**0.6110**

3.6 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	0.0707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8500e-003	0.0687	0.0818	1.3000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	11.4896	11.4896	7.9000e-004	0.0000	11.5094
Total	**0.0805**	**0.0687**	**0.0818**	**1.3000e-004**		**4.2300e-003**	**4.2300e-003**		**4.2300e-003**	**4.2300e-003**	**0.0000**	**11.4896**	**11.4896**	**7.9000e-004**	**0.0000**	**11.5094**

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	4.3000e-004	3.1000e-004	3.2200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9159	0.9159	2.0000e-005	0.0000	0.9165
Total	**4.3000e-004**	**3.1000e-004**	**3.2200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0700e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9159**	**0.9159**	**2.0000e-005**	**0.0000**	**0.9165**

3.6 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	0.0707					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8500e-003	0.0687	0.0818	1.3000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	11.4896	11.4896	7.9000e-004	0.0000	11.5093
Total	**0.0805**	**0.0687**	**0.0818**	**1.3000e-004**		**4.2300e-003**	**4.2300e-003**		**4.2300e-003**	**4.2300e-003**	**0.0000**	**11.4896**	**11.4896**	**7.9000e-004**	**0.0000**	**11.5093**

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	4.3000e-004	3.1000e-004	3.2200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0700e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.9159	0.9159	2.0000e-005	0.0000	0.9165
Total	**4.3000e-004**	**3.1000e-004**	**3.2200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0700e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.9159**	**0.9159**	**2.0000e-005**	**0.0000**	**0.9165**

4.0 Operational Detail - Mobile

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	0.4189	2.5289	3.0759	8.9200e-003	0.5650	8.5900e-003	0.5736	0.1519	8.0600e-003	0.1599	0.0000	825.8521	825.8521	0.0569	0.0000	827.2754
Unmitigated	0.4189	2.5289	3.0759	8.9200e-003	0.5650	8.5900e-003	0.5736	0.1519	8.0600e-003	0.1599	0.0000	825.8521	825.8521	0.0569	0.0000	827.2754

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Convenience Market With Gas Pumps	1,213.20	1,213.20	1213.20	650,766	650,766
Fast Food Restaurant with Drive Thru	752.08	752.08	752.08	702,687	702,687
Parking Lot	0.00	0.00	0.00		
Strip Mall	102.00	102.00	102.00	157,083	157,083
Total	2,067.28	2,067.28	2,067.28	1,510,536	1,510,536

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Convenience Market With Gas Pumps	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Fast Food Restaurant with Drive Thru	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Parking Lot	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Strip Mall	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Greenville Plaza - Alameda County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.1040	81.1040	3.6700e-003	7.6000e-004	81.4218
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	81.1040	81.1040	3.6700e-003	7.6000e-004	81.4218
NaturalGas Mitigated	4.5400e-003	0.0413	0.0347	2.5000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	44.9179	44.9179	8.6000e-004	8.2000e-004	45.1848
NaturalGas Unmitigated	4.5400e-003	0.0413	0.0347	2.5000e-004		3.1400e-003	3.1400e-003		3.1400e-003	3.1400e-003	0.0000	44.9179	44.9179	8.6000e-004	8.2000e-004	45.1848

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					
Automobile Care Center	114970	6.2000e-004	5.6400e-003	4.7300e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1352	6.1352	1.2000e-004	1.1000e-004	6.1717
Convenience Market With Gas Pumps	10487.3	6.0000e-005	5.1000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5596	0.5596	1.0000e-005	1.0000e-005	0.5630
Fast Food Restaurant with Drive Thru	706792	3.8100e-003	0.0347	0.0291	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.7171	37.7171	7.2000e-004	6.9000e-004	37.9413
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
Strip Mall	9480	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5059	0.5059	1.0000e-005	1.0000e-005	0.5089
Total		**4.5400e-003**	**0.0413**	**0.0347**	**2.4000e-004**		**3.1400e-003**	**3.1400e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**44.9179**	**44.9179**	**8.6000e-004**	**8.2000e-004**	**45.1848**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	114970	6.2000e-004	5.6400e-003	4.7300e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1352	6.1352	1.2000e-004	1.1000e-004	6.1717
Convenience Market With Gas Pumps	10487.3	6.0000e-005	5.1000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5596	0.5596	1.0000e-005	1.0000e-005	0.5630
Fast Food Restaurant with Drive Thru	706792	3.8100e-003	0.0347	0.0291	2.1000e-004		2.6300e-003	2.6300e-003		2.6300e-003	2.6300e-003	0.0000	37.7171	37.7171	7.2000e-004	6.9000e-004	37.9413
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
Strip Mall	9480	5.0000e-005	4.6000e-004	3.9000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5059	0.5059	1.0000e-005	1.0000e-005	0.5089
Total		**4.5400e-003**	**0.0413**	**0.0347**	**2.4000e-004**		**3.1400e-003**	**3.1400e-003**		**3.1400e-003**	**3.1400e-003**	**0.0000**	**44.9179**	**44.9179**	**8.6000e-004**	**8.2000e-004**	**45.1848**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	69081.6	20.0966	9.1000e-004	1.9000e-004	20.1754
Convenience Market With Gas Pumps	47303.3	13.7611	6.2000e-004	1.3000e-004	13.8150
Fast Food Restaurant with Drive Thru	111248	32.3633	1.4600e-003	3.0000e-004	32.4901
Parking Lot	8400	2.4437	1.1000e-004	2.0000e-005	2.4532
Strip Mall	42760	12.4394	5.6000e-004	1.2000e-004	12.4881
Total		**81.1040**	**3.6600e-003**	**7.6000e-004**	**81.4218**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	69081.6	20.0966	9.1000e-004	1.9000e-004	20.1754
Convenience Market With Gas Pumps	47303.3	13.7611	6.2000e-004	1.3000e-004	13.8150
Fast Food Restaurant with Drive Thru	111248	32.3633	1.4600e-003	3.0000e-004	32.4901
Parking Lot	8400	2.4437	1.1000e-004	2.0000e-005	2.4532
Strip Mall	42760	12.4394	5.6000e-004	1.2000e-004	12.4881
Total		**81.1040**	**3.6600e-003**	**7.6000e-004**	**81.4218**

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	0.0579	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Unmitigated	0.0579	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003

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	7.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0507					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Total	**0.0579**	**1.0000e-005**	**7.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**0.0000**	**1.5300e-003**

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	7.0700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0507					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5300e-003
Total	**0.0579**	**1.0000e-005**	**7.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**0.0000**	**1.5300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.3561	0.0523	1.2600e-003	5.0373
Unmitigated	3.3561	0.0523	1.2600e-003	5.0373

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.146 / 0	0.2761	4.7700e-003	1.1000e-004	0.4295
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.3157	4.1000e-003	1.0000e-004	0.4477
Fast Food Restaurant with Drive Thru	1.03201 / 0.0658733	2.0190	0.0337	8.1000e-004	3.1030
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	0.7453	9.6800e-003	2.3000e-004	1.0572
Total		**3.3561**	**0.0523**	**1.2500e-003**	**5.0373**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.146 / 0	0.2761	4.7700e-003	1.1000e-004	0.4295
Convenience Market With Gas Pumps	0.125486 / 0.0769109	0.3157	4.1000e-003	1.0000e-004	0.4477
Fast Food Restaurant with Drive Thru	1.03201 / 0.0658733	2.0190	0.0337	8.1000e-004	3.1030
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.29629 / 0.181597	0.7453	9.6800e-003	2.3000e-004	1.0572
Total		**3.3561**	**0.0523**	**1.2500e-003**	**5.0373**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.3985	0.5554	0.0000	23.2843
Unmitigated	9.3985	0.5554	0.0000	23.2843

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	2.94	0.5968	0.0353	0.0000	1.4785
Fast Food Restaurant with Drive Thru	39.16	7.9491	0.4698	0.0000	19.6936
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
Total		**9.3985**	**0.5554**	**0.0000**	**23.2843**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	2.94	0.5968	0.0353	0.0000	1.4785
Fast Food Restaurant with Drive Thru	39.16	7.9491	0.4698	0.0000	19.6936
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	4.2	0.8526	0.0504	0.0000	2.1122
Total		**9.3985**	**0.5554**	**0.0000**	**23.2843**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenville Plaza

Alameda County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	60.00	Space	0.54	24,000.00	0
Fast Food Restaurant with Drive Thru	3.40	1000sqft	0.08	3,400.00	0
Automobile Care Center	0.77	1000sqft	0.02	768.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,425.00	0
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan, project description, and TIA (Aliquot). Fast food includes drive-through next to market and potential sf in retail (strip mall)

Construction Phase - Construction phases adjusted for anticipated 1 year schedule. Construction and architectural coating are assumed to occur concurrently.

Trips and VMT - Material will be hauled to site 10 miles away per project description.

Grading - Total project site =2.52 acres, assumes multiple passes. 28,000 cubic yards export per applicant.

Vehicle Trips - TIA combined trips from convenience store and fuel center (Convenience Market with Gas Pumps) and car wash (Auto Care Center). Trip rates calculated from AM and PM peak hour trips in TIA.

Energy Use - Car wash (Auto Care Center) electricity use based on industry average 4.69 khw/vehicle and natural gas use based on 15.79 KBtu/vehicle.

Water And Wastewater - Water/wastewater per subsection 4.19, Utilities, in Initial Study, which assumes 73% reclaimed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	90.00
tblConstructionPhase	NumDays	100.00	150.00
tblConstructionPhase	NumDays	2.00	80.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	10.00
tblEnergyUse	NT24E	3.70	86.87
tblEnergyUse	NT24NG	6.67	149.70
tblEnergyUse	T24E	1.48	0.00
tblEnergyUse	T24NG	19.71	0.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	28,000.00
tblLandUse	LandUseSquareFeet	770.00	768.00
tblLandUse	LandUseSquareFeet	1,694.10	4,425.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	ST_TR	23.72	0.00

tblVehicleTrips	ST_TR	204.47	101.10
tblVehicleTrips	ST_TR	722.03	221.20
tblVehicleTrips	ST_TR	42.04	25.50
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	166.88	101.10
tblVehicleTrips	SU_TR	542.72	221.20
tblVehicleTrips	SU_TR	20.43	25.50
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	542.60	101.10
tblVehicleTrips	WD_TR	496.12	221.20
tblVehicleTrips	WD_TR	44.32	25.50
tblWater	IndoorWaterUseRate	72,442.45	146,000.00
tblWater	OutdoorWaterUseRate	44,400.21	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2021	3.5637	31.6279	20.9911	0.0569	1.6403	1.1760	2.8162	0.6199	1.0965	1.7164	0.0000	5,704.3349	5,704.3349	1.0234	0.0000	5,729.9188
Maximum	**3.5637**	**31.6279**	**20.9911**	**0.0569**	**1.6403**	**1.1760**	**2.8162**	**0.6199**	**1.0965**	**1.7164**	**0.0000**	**5,704.3349**	**5,704.3349**	**1.0234**	**0.0000**	**5,729.9188**

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	lb/day										lb/day					
2021	3.5637	31.6279	20.9911	0.0569	1.1024	1.1760	2.2784	0.3780	1.0965	1.4745	0.0000	5,704.3349	5,704.3349	1.0234	0.0000	5,729.9188
Maximum	**3.5637**	**31.6279**	**20.9911**	**0.0569**	**1.1024**	**1.1760**	**2.2784**	**0.3780**	**1.0965**	**1.4745**	**0.0000**	**5,704.3349**	**5,704.3349**	**1.0234**	**0.0000**	**5,729.9188**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**32.79**	**0.00**	**19.10**	**39.02**	**0.00**	**14.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Energy	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
Mobile	2.7336	13.7975	15.9012	0.0517	3.2226	0.0468	3.2694	0.8635	0.0439	0.9073		5,269.7585	5,269.7585	0.3303		5,278.0150
Total	**3.0760**	**14.0237**	**16.0993**	**0.0530**	**3.2226**	**0.0640**	**3.2866**	**0.8635**	**0.0611**	**0.9245**		**5,541.0826**	**5,541.0826**	**0.3355**	**4.9700e-003**	**5,550.9525**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Energy	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
Mobile	2.7336	13.7975	15.9012	0.0517	3.2226	0.0468	3.2694	0.8635	0.0439	0.9073		5,269.7585	5,269.7585	0.3303		5,278.0150
Total	**3.0760**	**14.0237**	**16.0993**	**0.0530**	**3.2226**	**0.0640**	**3.2866**	**0.8635**	**0.0611**	**0.9245**		**5,541.0826**	**5,541.0826**	**0.3355**	**4.9700e-003**	**5,550.9525**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/2/2021	4/23/2021	5	80	
3	Building Construction	Building Construction	1/6/2021	8/3/2021	5	150	
4	Paving	Paving	5/26/2021	6/8/2021	5	10	
5	Architectural Coating	Architectural Coating	6/2/2021	10/5/2021	5	90	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,890; Non-Residential Outdoor: 6,297; Striped Parking Area: 1,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	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
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	3,500.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	14.00	6.00	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	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.0530**	**0.2995**	**0.3525**	**5.7300e-003**	**0.2755**	**0.2812**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

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	0.0169	0.0100	0.1303	4.0000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		40.3189	40.3189	9.6000e-004		40.3428
Total	**0.0169**	**0.0100**	**0.1303**	**4.0000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**40.3189**	**40.3189**	**9.6000e-004**		**40.3428**

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.0239**	**0.2995**	**0.3233**	**2.5800e-003**	**0.2755**	**0.2781**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

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	0.0169	0.0100	0.1303	4.0000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		40.3189	40.3189	9.6000e-004		40.3428
Total	**0.0169**	**0.0100**	**0.1303**	**4.0000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**40.3189**	**40.3189**	**9.6000e-004**		**40.3428**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9249	0.0000	0.9249	0.4341	0.0000	0.4341			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.9249**	**0.4073**	**1.3322**	**0.4341**	**0.3886**	**0.8227**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

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	0.2088	7.8758	1.2491	0.0198	0.3834	0.0188	0.4022	0.1052	0.0179	0.1231		2,101.9614	2,101.9614	0.1332		2,105.2916
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	0.0338	0.0201	0.2605	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.6378	80.6378	1.9200e-003		80.6856
Total	**0.2425**	**7.8959**	**1.5096**	**0.0206**	**0.4656**	**0.0193**	**0.4849**	**0.1270**	**0.0184**	**0.1454**		**2,182.5992**	**2,182.5992**	**0.1351**		**2,185.9772**

3.3 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.4162	0.0000	0.4162	0.1953	0.0000	0.1953			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.4162**	**0.4073**	**0.8236**	**0.1953**	**0.3886**	**0.5839**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

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	0.2088	7.8758	1.2491	0.0198	0.3834	0.0188	0.4022	0.1052	0.0179	0.1231		2,101.9614	2,101.9614	0.1332		2,105.2916
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	0.0338	0.0201	0.2605	8.1000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		80.6378	80.6378	1.9200e-003		80.6856
Total	**0.2425**	**7.8959**	**1.5096**	**0.0206**	**0.4656**	**0.0193**	**0.4849**	**0.1270**	**0.0184**	**0.1454**		**2,182.5992**	**2,182.5992**	**0.1351**		**2,185.9772**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

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	0.0182	0.6355	0.1263	1.6600e-003	0.0407	1.3200e-003	0.0420	0.0117	1.2600e-003	0.0130		175.2903	175.2903	9.1000e-003		175.5179
Worker	0.0473	0.0281	0.3647	1.1300e-003	0.1150	7.4000e-004	0.1158	0.0305	6.9000e-004	0.0312		112.8929	112.8929	2.6800e-003		112.9599
Total	**0.0654**	**0.6636**	**0.4910**	**2.7900e-003**	**0.1557**	**2.0600e-003**	**0.1577**	**0.0422**	**1.9500e-003**	**0.0442**		**288.1831**	**288.1831**	**0.0118**		**288.4777**

3.4 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	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

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	0.0182	0.6355	0.1263	1.6600e-003	0.0407	1.3200e-003	0.0420	0.0117	1.2600e-003	0.0130		175.2903	175.2903	9.1000e-003		175.5179
Worker	0.0473	0.0281	0.3647	1.1300e-003	0.1150	7.4000e-004	0.1158	0.0305	6.9000e-004	0.0312		112.8929	112.8929	2.6800e-003		112.9599
Total	**0.0654**	**0.6636**	**0.4910**	**2.7900e-003**	**0.1557**	**2.0600e-003**	**0.1577**	**0.0422**	**1.9500e-003**	**0.0442**		**288.1831**	**288.1831**	**0.0118**		**288.4777**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.1415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8629**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

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	0.0608	0.0362	0.4689	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.1480	145.1480	3.4500e-003		145.2341
Total	**0.0608**	**0.0362**	**0.4689**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.1480**	**145.1480**	**3.4500e-003**		**145.2341**

3.5 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	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.1415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8629**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

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	0.0608	0.0362	0.4689	1.4600e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		145.1480	145.1480	3.4500e-003		145.2341
Total	**0.0608**	**0.0362**	**0.4689**	**1.4600e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**145.1480**	**145.1480**	**3.4500e-003**		**145.2341**

3.6 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	lb/day										lb/day					
Archit. Coating	1.5705					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**1.7894**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0101	6.0300e-003	0.0782	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.1913	24.1913	5.7000e-004		24.2057
Total	**0.0101**	**6.0300e-003**	**0.0782**	**2.4000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**24.1913**	**24.1913**	**5.7000e-004**		**24.2057**

3.6 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	lb/day										lb/day					
Archit. Coating	1.5705					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**1.7894**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0101	6.0300e-003	0.0782	2.4000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		24.1913	24.1913	5.7000e-004		24.2057
Total	**0.0101**	**6.0300e-003**	**0.0782**	**2.4000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**24.1913**	**24.1913**	**5.7000e-004**		**24.2057**

4.0 Operational Detail - Mobile

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	lb/day										lb/day					
Mitigated	2.7336	13.7975	15.9012	0.0517	3.2226	0.0468	3.2694	0.8635	0.0439	0.9073		5,269.7585	5,269.7585	0.3303		5,278.0150
Unmitigated	2.7336	13.7975	15.9012	0.0517	3.2226	0.0468	3.2694	0.8635	0.0439	0.9073		5,269.7585	5,269.7585	0.3303		5,278.0150

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Convenience Market With Gas Pumps	1,213.20	1,213.20	1213.20	650,766	650,766
Fast Food Restaurant with Drive Thru	752.08	752.08	752.08	702,687	702,687
Parking Lot	0.00	0.00	0.00		
Strip Mall	102.00	102.00	102.00	157,083	157,083
Total	2,067.28	2,067.28	2,067.28	1,510,536	1,510,536

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Convenience Market With Gas Pumps	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Fast Food Restaurant with Drive Thru	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Parking Lot	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Strip Mall	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
NaturalGas Unmitigated	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189

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					
Automobile Care Center	314.985	3.4000e-003	0.0309	0.0259	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		37.0571	37.0571	7.1000e-004	6.8000e-004	37.2773
Convenience Market With Gas Pumps	28.7322	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3803	3.3803	6.0000e-005	6.0000e-005	3.4004
Fast Food Restaurant with Drive Thru	1936.42	0.0209	0.1898	0.1595	1.1400e-003		0.0144	0.0144		0.0144	0.0144		227.8137	227.8137	4.3700e-003	4.1800e-003	229.1675
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
Strip Mall	25.9726	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0556	3.0556	6.0000e-005	6.0000e-005	3.0738
Total		**0.0249**	**0.2261**	**0.1899**	**1.3700e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**		**271.3066**	**271.3066**	**5.2000e-003**	**4.9800e-003**	**272.9189**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.314985	3.4000e-003	0.0309	0.0259	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		37.0571	37.0571	7.1000e-004	6.8000e-004	37.2773
Convenience Market With Gas Pumps	0.0287322	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3803	3.3803	6.0000e-005	6.0000e-005	3.4004
Fast Food Restaurant with Drive Thru	1.93642	0.0209	0.1898	0.1595	1.1400e-003		0.0144	0.0144		0.0144	0.0144		227.8137	227.8137	4.3700e-003	4.1800e-003	229.1675
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
Strip Mall	0.0259726	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0556	3.0556	6.0000e-005	6.0000e-005	3.0738
Total		**0.0249**	**0.2261**	**0.1899**	**1.3700e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**		**271.3066**	**271.3066**	**5.2000e-003**	**4.9800e-003**	**272.9189**

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	lb/day										lb/day					
Mitigated	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Unmitigated	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187

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	0.0387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2780					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Total	**0.3175**	**7.0000e-005**	**8.2000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0187**

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	0.0387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2780					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Total	**0.3175**	**7.0000e-005**	**8.2000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0187**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenville Plaza

Alameda County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	60.00	Space	0.54	24,000.00	0
Fast Food Restaurant with Drive Thru	3.40	1000sqft	0.08	3,400.00	0
Automobile Care Center	0.77	1000sqft	0.02	768.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.04	4,425.00	0
Strip Mall	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan, project description, and TIA (Aliquot). Fast food includes drive-through next to market and potential sf in retail (strip mall)

Construction Phase - Construction phases adjusted for anticipated 1 year schedule. Construction and architectural coating are assumed to occur concurrently.

Trips and VMT - Material will be hauled to site 10 miles away per project description.

Grading - Total project site =2.52 acres, assumes multiple passes. 28,000 cubic yards export per applicant.

Vehicle Trips - TIA combined trips from convenience store and fuel center (Convenience Market with Gas Pumps) and car wash (Auto Care Center). Trip rates calculated from AM and PM peak hour trips in TIA.

Energy Use - Car wash (Auto Care Center) electricity use based on industry average 4.69 khw/vehicle and natural gas use based on 15.79 KBtu/vehicle.

Water And Wastewater - Water/wastewater per subsection 4.19, Utilities, in Initial Study, which assumes 73% reclaimed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	90.00
tblConstructionPhase	NumDays	100.00	150.00
tblConstructionPhase	NumDays	2.00	80.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	1.00	10.00
tblEnergyUse	NT24E	3.70	86.87
tblEnergyUse	NT24NG	6.67	149.70
tblEnergyUse	T24E	1.48	0.00
tblEnergyUse	T24NG	19.71	0.00
tblGrading	AcresOfGrading	0.00	10.00
tblGrading	AcresOfGrading	5.00	0.50
tblGrading	MaterialExported	0.00	28,000.00
tblLandUse	LandUseSquareFeet	770.00	768.00
tblLandUse	LandUseSquareFeet	1,694.10	4,425.00
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblVehicleTrips	ST_TR	23.72	0.00

tblVehicleTrips	ST_TR	204.47	101.10
tblVehicleTrips	ST_TR	722.03	221.20
tblVehicleTrips	ST_TR	42.04	25.50
tblVehicleTrips	SU_TR	11.88	0.00
tblVehicleTrips	SU_TR	166.88	101.10
tblVehicleTrips	SU_TR	542.72	221.20
tblVehicleTrips	SU_TR	20.43	25.50
tblVehicleTrips	WD_TR	23.72	0.00
tblVehicleTrips	WD_TR	542.60	101.10
tblVehicleTrips	WD_TR	496.12	221.20
tblVehicleTrips	WD_TR	44.32	25.50
tblWater	IndoorWaterUseRate	72,442.45	146,000.00
tblWater	OutdoorWaterUseRate	44,400.21	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2021	3.5698	31.6973	21.1606	0.0560	1.6403	1.1766	2.8168	0.6199	1.0971	1.7170	0.0000	5,612.7973	5,612.7973	1.0368	0.0000	5,638.7182
Maximum	**3.5698**	**31.6973**	**21.1606**	**0.0560**	**1.6403**	**1.1766**	**2.8168**	**0.6199**	**1.0971**	**1.7170**	**0.0000**	**5,612.7973**	**5,612.7973**	**1.0368**	**0.0000**	**5,638.7182**

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	lb/day										lb/day					
2021	3.5698	31.6973	21.1606	0.0560	1.1024	1.1766	2.2790	0.3780	1.0971	1.4751	0.0000	5,612.7973	5,612.7973	1.0368	0.0000	5,638.7182
Maximum	**3.5698**	**31.6973**	**21.1606**	**0.0560**	**1.1024**	**1.1766**	**2.2790**	**0.3780**	**1.0971**	**1.4751**	**0.0000**	**5,612.7973**	**5,612.7973**	**1.0368**	**0.0000**	**5,638.7182**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**32.79**	**0.00**	**19.09**	**39.02**	**0.00**	**14.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Energy	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
Mobile	2.2677	13.8816	18.5311	0.0481	3.2226	0.0479	3.2706	0.8635	0.0450	0.9084		4,902.3207	4,902.3207	0.3660		4,911.4713
Total	**2.6101**	**14.1078**	**18.7292**	**0.0495**	**3.2226**	**0.0651**	**3.2878**	**0.8635**	**0.0622**	**0.9256**		**5,173.6449**	**5,173.6449**	**0.3713**	**4.9700e-003**	**5,184.4089**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Energy	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
Mobile	2.2677	13.8816	18.5311	0.0481	3.2226	0.0479	3.2706	0.8635	0.0450	0.9084		4,902.3207	4,902.3207	0.3660		4,911.4713
Total	**2.6101**	**14.1078**	**18.7292**	**0.0495**	**3.2226**	**0.0651**	**3.2878**	**0.8635**	**0.0622**	**0.9256**		**5,173.6449**	**5,173.6449**	**0.3713**	**4.9700e-003**	**5,184.4089**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**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	Site Preparation	Site Preparation	1/1/2021	1/14/2021	5	10	
2	Grading	Grading	1/2/2021	4/23/2021	5	80	
3	Building Construction	Building Construction	1/6/2021	8/3/2021	5	150	
4	Paving	Paving	5/26/2021	6/8/2021	5	10	
5	Architectural Coating	Architectural Coating	6/2/2021	10/5/2021	5	90	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.54

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 18,890; Non-Residential Outdoor: 6,297; Striped Parking Area: 1,440 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	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
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	3,500.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	14.00	6.00	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	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755		942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.0530**	**0.2995**	**0.3525**	**5.7300e-003**	**0.2755**	**0.2812**		**942.5842**	**942.5842**	**0.3049**		**950.2055**

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	0.0176	0.0125	0.1226	3.7000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		37.1021	37.1021	9.0000e-004		37.1245
Total	**0.0176**	**0.0125**	**0.1226**	**3.7000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**37.1021**	**37.1021**	**9.0000e-004**		**37.1245**

3.2 Site Preparation - 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	lb/day										lb/day					
Fugitive Dust					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003			0.0000			0.0000
Off-Road	0.6403	7.8204	4.0274	9.7300e-003		0.2995	0.2995		0.2755	0.2755	0.0000	942.5842	942.5842	0.3049		950.2055
Total	**0.6403**	**7.8204**	**4.0274**	**9.7300e-003**	**0.0239**	**0.2995**	**0.3233**	**2.5800e-003**	**0.2755**	**0.2781**	**0.0000**	**942.5842**	**942.5842**	**0.3049**		**950.2055**

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	0.0176	0.0125	0.1226	3.7000e-004	0.0411	2.7000e-004	0.0413	0.0109	2.4000e-004	0.0111		37.1021	37.1021	9.0000e-004		37.1245
Total	**0.0176**	**0.0125**	**0.1226**	**3.7000e-004**	**0.0411**	**2.7000e-004**	**0.0413**	**0.0109**	**2.4000e-004**	**0.0111**		**37.1021**	**37.1021**	**9.0000e-004**		**37.1245**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9249	0.0000	0.9249	0.4341	0.0000	0.4341			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886		1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.9249**	**0.4073**	**1.3322**	**0.4341**	**0.3886**	**0.8227**		**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

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	0.2185	7.9263	1.4426	0.0191	0.3834	0.0193	0.4028	0.1052	0.0185	0.1237		2,033.9039	2,033.9039	0.1461		2,037.5566
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	0.0352	0.0250	0.2451	7.4000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		74.2042	74.2042	1.7900e-003		74.2489
Total	**0.2537**	**7.9513**	**1.6877**	**0.0199**	**0.4656**	**0.0199**	**0.4854**	**0.1270**	**0.0190**	**0.1460**		**2,108.1081**	**2,108.1081**	**0.1479**		**2,111.8055**

3.3 Grading - 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	lb/day										lb/day					
Fugitive Dust					0.4162	0.0000	0.4162	0.1953	0.0000	0.1953			0.0000			0.0000
Off-Road	0.7965	7.2530	7.5691	0.0120		0.4073	0.4073		0.3886	0.3886	0.0000	1,147.4338	1,147.4338	0.2138		1,152.7797
Total	**0.7965**	**7.2530**	**7.5691**	**0.0120**	**0.4162**	**0.4073**	**0.8236**	**0.1953**	**0.3886**	**0.5839**	**0.0000**	**1,147.4338**	**1,147.4338**	**0.2138**		**1,152.7797**

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	0.2185	7.9263	1.4426	0.0191	0.3834	0.0193	0.4028	0.1052	0.0185	0.1237		2,033.9039	2,033.9039	0.1461		2,037.5566
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	0.0352	0.0250	0.2451	7.4000e-004	0.0822	5.3000e-004	0.0827	0.0218	4.9000e-004	0.0223		74.2042	74.2042	1.7900e-003		74.2489
Total	**0.2537**	**7.9513**	**1.6877**	**0.0199**	**0.4656**	**0.0199**	**0.4854**	**0.1270**	**0.0190**	**0.1460**		**2,108.1081**	**2,108.1081**	**0.1479**		**2,111.8055**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**		**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

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	0.0192	0.6402	0.1470	1.6200e-003	0.0407	1.3600e-003	0.0420	0.0117	1.3000e-003	0.0130		170.4676	170.4676	0.0100		170.7187
Worker	0.0493	0.0350	0.3431	1.0400e-003	0.1150	7.4000e-004	0.1158	0.0305	6.9000e-004	0.0312		103.8859	103.8859	2.5100e-003		103.9485
Total	**0.0685**	**0.6751**	**0.4901**	**2.6600e-003**	**0.1557**	**2.1000e-003**	**0.1578**	**0.0422**	**1.9900e-003**	**0.0442**		**274.3534**	**274.3534**	**0.0126**		**274.6672**

3.4 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	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	**0.7750**	**7.9850**	**7.2637**	**0.0114**		**0.4475**	**0.4475**		**0.4117**	**0.4117**	**0.0000**	**1,103.2158**	**1,103.2158**	**0.3568**		**1,112.1358**

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	0.0192	0.6402	0.1470	1.6200e-003	0.0407	1.3600e-003	0.0420	0.0117	1.3000e-003	0.0130		170.4676	170.4676	0.0100		170.7187
Worker	0.0493	0.0350	0.3431	1.0400e-003	0.1150	7.4000e-004	0.1158	0.0305	6.9000e-004	0.0312		103.8859	103.8859	2.5100e-003		103.9485
Total	**0.0685**	**0.6751**	**0.4901**	**2.6600e-003**	**0.1557**	**2.1000e-003**	**0.1578**	**0.0422**	**1.9900e-003**	**0.0442**		**274.3534**	**274.3534**	**0.0126**		**274.6672**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286		1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.1415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8629**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**		**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

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	0.0634	0.0450	0.4412	1.3400e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		133.5675	133.5675	3.2200e-003		133.6481
Total	**0.0634**	**0.0450**	**0.4412**	**1.3400e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**133.5675**	**133.5675**	**3.2200e-003**		**133.6481**

3.5 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	lb/day										lb/day					
Off-Road	0.7214	6.7178	7.0899	0.0113		0.3534	0.3534		0.3286	0.3286	0.0000	1,035.3425	1,035.3425	0.3016		1,042.8818
Paving	0.1415					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8629**	**6.7178**	**7.0899**	**0.0113**		**0.3534**	**0.3534**		**0.3286**	**0.3286**	**0.0000**	**1,035.3425**	**1,035.3425**	**0.3016**		**1,042.8818**

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	0.0634	0.0450	0.4412	1.3400e-003	0.1479	9.6000e-004	0.1488	0.0392	8.8000e-004	0.0401		133.5675	133.5675	3.2200e-003		133.6481
Total	**0.0634**	**0.0450**	**0.4412**	**1.3400e-003**	**0.1479**	**9.6000e-004**	**0.1488**	**0.0392**	**8.8000e-004**	**0.0401**		**133.5675**	**133.5675**	**3.2200e-003**		**133.6481**

3.6 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	lb/day										lb/day					
Archit. Coating	1.5705					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**1.7894**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0106	7.4900e-003	0.0735	2.2000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.2613	22.2613	5.4000e-004		22.2747
Total	**0.0106**	**7.4900e-003**	**0.0735**	**2.2000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.2613**	**22.2613**	**5.4000e-004**		**22.2747**

3.6 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	lb/day										lb/day					
Archit. Coating	1.5705					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**1.7894**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

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	0.0106	7.4900e-003	0.0735	2.2000e-004	0.0246	1.6000e-004	0.0248	6.5400e-003	1.5000e-004	6.6800e-003		22.2613	22.2613	5.4000e-004		22.2747
Total	**0.0106**	**7.4900e-003**	**0.0735**	**2.2000e-004**	**0.0246**	**1.6000e-004**	**0.0248**	**6.5400e-003**	**1.5000e-004**	**6.6800e-003**		**22.2613**	**22.2613**	**5.4000e-004**		**22.2747**

4.0 Operational Detail - Mobile

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	lb/day										lb/day					
Mitigated	2.2677	13.8816	18.5311	0.0481	3.2226	0.0479	3.2706	0.8635	0.0450	0.9084		4,902.3207	4,902.3207	0.3660		4,911.4713
Unmitigated	2.2677	13.8816	18.5311	0.0481	3.2226	0.0479	3.2706	0.8635	0.0450	0.9084		4,902.3207	4,902.3207	0.3660		4,911.4713

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	0.00	0.00	0.00		
Convenience Market With Gas Pumps	1,213.20	1,213.20	1213.20	650,766	650,766
Fast Food Restaurant with Drive Thru	752.08	752.08	752.08	702,687	702,687
Parking Lot	0.00	0.00	0.00		
Strip Mall	102.00	102.00	102.00	157,083	157,083
Total	2,067.28	2,067.28	2,067.28	1,510,536	1,510,536

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market With Gas	9.50	7.30	7.30	0.80	80.20	19.00	14	21	65
Fast Food Restaurant with Drive	9.50	7.30	7.30	2.20	78.80	19.00	29	21	50
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Convenience Market With Gas Pumps	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Fast Food Restaurant with Drive Thru	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Parking Lot	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Strip Mall	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189
NaturalGas Unmitigated	0.0249	0.2261	0.1899	1.3600e-003		0.0172	0.0172		0.0172	0.0172		271.3066	271.3066	5.2000e-003	4.9700e-003	272.9189

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					
Automobile Care Center	314.985	3.4000e-003	0.0309	0.0259	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		37.0571	37.0571	7.1000e-004	6.8000e-004	37.2773
Convenience Market With Gas Pumps	28.7322	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3803	3.3803	6.0000e-005	6.0000e-005	3.4004
Fast Food Restaurant with Drive Thru	1936.42	0.0209	0.1898	0.1595	1.1400e-003		0.0144	0.0144		0.0144	0.0144		227.8137	227.8137	4.3700e-003	4.1800e-003	229.1675
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
Strip Mall	25.9726	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0556	3.0556	6.0000e-005	6.0000e-005	3.0738
Total		**0.0249**	**0.2261**	**0.1899**	**1.3700e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**		**271.3066**	**271.3066**	**5.2000e-003**	**4.9800e-003**	**272.9189**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Automobile Care Center	0.314985	3.4000e-003	0.0309	0.0259	1.9000e-004		2.3500e-003	2.3500e-003		2.3500e-003	2.3500e-003		37.0571	37.0571	7.1000e-004	6.8000e-004	37.2773
Convenience Market With Gas Pumps	0.0287322	3.1000e-004	2.8200e-003	2.3700e-003	2.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004		3.3803	3.3803	6.0000e-005	6.0000e-005	3.4004
Fast Food Restaurant with Drive Thru	1.93642	0.0209	0.1898	0.1595	1.1400e-003		0.0144	0.0144		0.0144	0.0144		227.8137	227.8137	4.3700e-003	4.1800e-003	229.1675
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
Strip Mall	0.0259726	2.8000e-004	2.5500e-003	2.1400e-003	2.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		3.0556	3.0556	6.0000e-005	6.0000e-005	3.0738
Total		**0.0249**	**0.2261**	**0.1899**	**1.3700e-003**		**0.0172**	**0.0172**		**0.0172**	**0.0172**		**271.3066**	**271.3066**	**5.2000e-003**	**4.9800e-003**	**272.9189**

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	lb/day										lb/day					
Mitigated	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Unmitigated	0.3175	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187

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	0.0387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2780					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Total	**0.3175**	**7.0000e-005**	**8.2000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0187**

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	0.0387					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2780					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.6000e-004	7.0000e-005	8.2000e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0176	0.0176	5.0000e-005		0.0187
Total	**0.3175**	**7.0000e-005**	**8.2000e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0176**	**0.0176**	**5.0000e-005**		**0.0187**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenville Plaza Project Idling Emmsions for Cars and Light Duty Trucks

Alameda County, 2022

		Pounds per Day					CO2e (MT per Year)				
Input		**ROG**	**CO**	**NOX**	**PM10**	**PM2.5**		**CO2**	**CH4**	**N20**	**Total**
Vehicles per Day in Idling Queue	381						**GWP**	1	25	298	
Average Idling Time (minutes)	5	1.06E-03	1.90E-02	1.32E-03	1.40E-04	1.29E-04		1.51	0.00	0.01	1.52
Metric Tonnes (MT) per Pound	4.54E-04										

Notes:

1. Idling emissions are approximated by 5 mph emissions. Number of vehicles estimated from peak hour trips in TIA (Aliquot 2018) and car washes per day per Intital Study subsection 4.19, Utilities.
2. Average idling emissions in pounds per minute for Alameda County calculated using weighted average of annual VMT for cars and light duty trucks.
3. Electric vehicle VMT estimated from EMFAC2017 aggregated speed report, electric vehicle percent of car and light duty truck VMT.