

Bi' du Khaale Housing Project - Sonoma-North Coast County, Annual

**Bi' du Khaale Housing Project  
Sonoma-North Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	37.00	Space	0.33	14,800.00	0
Other Asphalt Surfaces	88.96	1000sqft	2.04	88,962.00	0
Other Asphalt Surfaces	7.54	1000sqft	0.17	7,540.00	0
Single Family Housing	25.00	Dwelling Unit	8.12	45,000.00	72
Government (Civic Center)	2.98	1000sqft	0.07	2,975.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	75
<b>Climate Zone</b>	4			<b>Operational Year</b>	2022
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

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

Project Characteristics -

Land Use - Project includes development of 25 single family residences that would range in size from 1,176 to 1,319 sf + 413 sf garage; a community center (2,975 sf); 37 parking spaces; private roads (88,962 sf); and trails (7,543 sf).

Construction Phase - Default assumptions; however, the anticipated demolition length has been reduced (from 5 to 2 days) due to the limited existing development currently located on-site.

Off-road Equipment - Default assumptions.

Off-road Equipment - Default assumptions.

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Off-road Equipment - Default assumptions.

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Off-road Equipment - Default assumptions.

Trips and VMT - Default assumptions.

On-road Fugitive Dust - Default assumptions.

Demolition - Limited demolition would be required for the project, including approximately 4,350 sf of existing development (derived from aerial).

Grading - Default assumptions.

Architectural Coating - Default assumptions.

Vehicle Trips - Default assumptions.

Vehicle Emission Factors - Default assumptions.

Vehicle Emission Factors - Default assumptions.

Vehicle Emission Factors - Default assumptions.

Road Dust - Default assumptions. Assumes vehicle speed would be reduced to 10mph on unpaved roads.

Woodstoves - Default assumptions.

Consumer Products - Default assumptions.

Area Coating - Default assumptions.

Landscape Equipment - Default assumptions.

Energy Use - Default assumptions.

Water And Wastewater - Default assumptions.

Solid Waste - Default assumptions.

Land Use Change - Any trees to be removed will be replanted on-site. Assumes existing forested areas will remain, approximately 5 acres of grassland would be utilized for the proposed development (based on aerial estimations).

Sequestration - Any trees removed will be replanted on-site.

Construction Off-road Equipment Mitigation - Assumes exposed areas will be watered at minimum of twice per day and vehicle speeds on unpaved roads will be reduced to 10mph.

Mobile Land Use Mitigation - N/A

Mobile Commute Mitigation - N/A

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Area Mitigation - Assumes only natural gas hearths and low VOC cleaning supplies and paint would be utilized.  
 Energy Mitigation - Assumes use of high efficiency lighting.

Water Mitigation - Assumes installation of low-flow fixtures and water-efficient irrigation systems and landscape.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	10
tblConstructionPhase	NumDays	20.00	2.00
tblConstructionPhase	PhaseEndDate	4/28/2021	4/2/2021
tblConstructionPhase	PhaseEndDate	5/12/2021	4/16/2021
tblConstructionPhase	PhaseEndDate	6/23/2021	5/28/2021
tblConstructionPhase	PhaseEndDate	8/17/2022	7/22/2022
tblConstructionPhase	PhaseEndDate	9/14/2022	8/19/2022
tblConstructionPhase	PhaseEndDate	10/12/2022	9/16/2022
tblConstructionPhase	PhaseStartDate	4/29/2021	4/5/2021
tblConstructionPhase	PhaseStartDate	5/13/2021	4/19/2021
tblConstructionPhase	PhaseStartDate	6/24/2021	5/31/2021
tblConstructionPhase	PhaseStartDate	8/18/2022	7/25/2022
tblConstructionPhase	PhaseStartDate	9/15/2022	8/22/2022
tblLandUse	LandUseSquareFeet	88,960.00	88,962.00
tblLandUse	LandUseSquareFeet	2,980.00	2,975.00

**2.0 Emissions Summary**

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2021	6-30-2021	1.1868	1.1868
2	7-1-2021	9-30-2021	0.7255	0.7255
3	10-1-2021	12-31-2021	0.7282	0.7282
4	1-1-2022	3-31-2022	0.6425	0.6425
5	4-1-2022	6-30-2022	0.6472	0.6472
6	7-1-2022	9-30-2022	1.0113	1.0113
		Highest	1.1868	1.1868

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	1.8467	0.0328	2.1234	3.5200e-003		0.2725	0.2725		0.2725	0.2725	25.8239	11.1358	36.9598	0.0241	2.0300e-003	38.1684
Energy	4.1800e-003	0.0359	0.0163	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	117.1536	117.1536	4.2200e-003	1.4700e-003	117.6963
Mobile	0.0954	0.5072	1.1051	3.5900e-003	0.2935	3.5800e-003	0.2971	0.0790	3.3600e-003	0.0824	0.0000	330.2215	330.2215	0.0137	0.0000	330.5649
Waste						0.0000	0.0000		0.0000	0.0000	9.5873	0.0000	9.5873	0.5666	0.0000	23.7520
Water						0.0000	0.0000		0.0000	0.0000	0.7046	4.9109	5.6155	0.0726	1.7500e-003	7.9531
<b>Total</b>	<b>1.9463</b>	<b>0.5758</b>	<b>3.2448</b>	<b>7.3400e-003</b>	<b>0.2935</b>	<b>0.2790</b>	<b>0.5725</b>	<b>0.0790</b>	<b>0.2788</b>	<b>0.3578</b>	<b>36.1158</b>	<b>463.4218</b>	<b>499.5376</b>	<b>0.6813</b>	<b>5.2500e-003</b>	<b>518.1347</b>

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**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2658	0.0175	0.1936	1.1000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	18.0278	18.0278	6.4000e-004	3.2000e-004	18.1406
Energy	4.1800e-003	0.0359	0.0163	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	117.1536	117.1536	4.2200e-003	1.4700e-003	117.6963
Mobile	0.0954	0.5072	1.1051	3.5900e-003	0.2935	3.5800e-003	0.2971	0.0790	3.3600e-003	0.0824	0.0000	330.2215	330.2215	0.0137	0.0000	330.5649
Waste						0.0000	0.0000		0.0000	0.0000	9.5873	0.0000	9.5873	0.5666	0.0000	23.7520
Water						0.0000	0.0000		0.0000	0.0000	0.5637	4.1254	4.6891	0.0581	1.4100e-003	6.5599
<b>Total</b>	<b>0.3654</b>	<b>0.5605</b>	<b>1.3150</b>	<b>3.9300e-003</b>	<b>0.2935</b>	<b>8.7400e-003</b>	<b>0.3023</b>	<b>0.0790</b>	<b>8.5200e-003</b>	<b>0.0875</b>	<b>10.1509</b>	<b>469.5283</b>	<b>479.6792</b>	<b>0.6433</b>	<b>3.2000e-003</b>	<b>496.7138</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>81.23</b>	<b>2.66</b>	<b>59.47</b>	<b>46.46</b>	<b>0.00</b>	<b>96.87</b>	<b>47.20</b>	<b>0.00</b>	<b>96.94</b>	<b>75.54</b>	<b>71.89</b>	<b>-1.32</b>	<b>3.98</b>	<b>5.58</b>	<b>39.05</b>	<b>4.13</b>

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**2.3 Vegetation**

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-21.5500
<b>Total</b>	<b>-21.5500</b>

**3.0 Construction Detail**

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2021	4/2/2021	5	2	
2	Site Preparation	Site Preparation	4/5/2021	4/16/2021	5	10	
3	Grading	Grading	4/19/2021	5/28/2021	5	30	
4	Building Construction	Building Construction	5/31/2021	7/22/2022	5	300	
5	Paving	Paving	7/25/2022	8/19/2022	5	20	
6	Architectural Coating	Architectural Coating	8/22/2022	9/16/2022	5	20	

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

**Acres of Grading (Grading Phase): 75**

**Acres of Paving: 2.54**

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**Residential Indoor: 91,125; Residential Outdoor: 30,375; Non-Residential Indoor: 4,463; Non-Residential Outdoor: 1,488; Striped Parking Area: 6,678 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

**Trips and VMT**

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	20.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	57.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

**3.2 Demolition - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.1400e-003	0.0000	2.1400e-003	3.2000e-004	0.0000	3.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0314	0.0216	4.0000e-005		1.5500e-003	1.5500e-003		1.4400e-003	1.4400e-003	0.0000	3.4001	3.4001	9.6000e-004	0.0000	3.4240
<b>Total</b>	<b>3.1700e-003</b>	<b>0.0314</b>	<b>0.0216</b>	<b>4.0000e-005</b>	<b>2.1400e-003</b>	<b>1.5500e-003</b>	<b>3.6900e-003</b>	<b>3.2000e-004</b>	<b>1.4400e-003</b>	<b>1.7600e-003</b>	<b>0.0000</b>	<b>3.4001</b>	<b>3.4001</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.4240</b>

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**3.2 Demolition - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.7200e-003	5.8000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7603	0.7603	5.0000e-005	0.0000	0.7614
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	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1047	0.1047	0.0000	0.0000	0.1048
<b>Total</b>	<b>1.4000e-004</b>	<b>2.7700e-003</b>	<b>1.0500e-003</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.8650</b>	<b>0.8650</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.8662</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.6000e-004	0.0000	9.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1700e-003	0.0314	0.0216	4.0000e-005		1.5500e-003	1.5500e-003		1.4400e-003	1.4400e-003	0.0000	3.4001	3.4001	9.6000e-004	0.0000	3.4240
<b>Total</b>	<b>3.1700e-003</b>	<b>0.0314</b>	<b>0.0216</b>	<b>4.0000e-005</b>	<b>9.6000e-004</b>	<b>1.5500e-003</b>	<b>2.5100e-003</b>	<b>1.5000e-004</b>	<b>1.4400e-003</b>	<b>1.5900e-003</b>	<b>0.0000</b>	<b>3.4001</b>	<b>3.4001</b>	<b>9.6000e-004</b>	<b>0.0000</b>	<b>3.4240</b>

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**3.2 Demolition - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	2.7200e-003	5.8000e-004	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.7603	0.7603	5.0000e-005	0.0000	0.7614
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	7.0000e-005	5.0000e-005	4.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1047	0.1047	0.0000	0.0000	0.1048
<b>Total</b>	<b>1.4000e-004</b>	<b>2.7700e-003</b>	<b>1.0500e-003</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>0.8650</b>	<b>0.8650</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.8662</b>

**3.3 Site Preparation - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>0.0194</b>	<b>0.2025</b>	<b>0.1058</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0102</b>	<b>0.1006</b>	<b>0.0497</b>	<b>9.4000e-003</b>	<b>0.0591</b>	<b>0.0000</b>	<b>16.7179</b>	<b>16.7179</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</b>

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**3.3 Site Preparation - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.8400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6282	0.6282	2.0000e-005	0.0000	0.6287
<b>Total</b>	<b>4.0000e-004</b>	<b>2.8000e-004</b>	<b>2.8400e-003</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6282</b>	<b>0.6282</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6287</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
<b>Total</b>	<b>0.0194</b>	<b>0.2025</b>	<b>0.1058</b>	<b>1.9000e-004</b>	<b>0.0407</b>	<b>0.0102</b>	<b>0.0509</b>	<b>0.0223</b>	<b>9.4000e-003</b>	<b>0.0317</b>	<b>0.0000</b>	<b>16.7178</b>	<b>16.7178</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8530</b>

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**3.3 Site Preparation - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.8000e-004	2.8400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.1000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6282	0.6282	2.0000e-005	0.0000	0.6287
<b>Total</b>	<b>4.0000e-004</b>	<b>2.8000e-004</b>	<b>2.8400e-003</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.0000e-005</b>	<b>7.1000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>0.6282</b>	<b>0.6282</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6287</b>

**3.4 Grading - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7425	81.7425	0.0264	0.0000	82.4034
<b>Total</b>	<b>0.0629</b>	<b>0.6960</b>	<b>0.4632</b>	<b>9.3000e-004</b>	<b>0.1301</b>	<b>0.0298</b>	<b>0.1599</b>	<b>0.0540</b>	<b>0.0274</b>	<b>0.0814</b>	<b>0.0000</b>	<b>81.7425</b>	<b>81.7425</b>	<b>0.0264</b>	<b>0.0000</b>	<b>82.4034</b>

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**3.4 Grading - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	9.3000e-004	9.4500e-003	2.0000e-005	2.3500e-003	2.0000e-005	2.3700e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.0939	2.0939	7.0000e-005	0.0000	2.0956
<b>Total</b>	<b>1.3300e-003</b>	<b>9.3000e-004</b>	<b>9.4500e-003</b>	<b>2.0000e-005</b>	<b>2.3500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.0939</b>	<b>2.0939</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0956</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0586	0.0000	0.0586	0.0243	0.0000	0.0243	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0629	0.6960	0.4632	9.3000e-004		0.0298	0.0298		0.0274	0.0274	0.0000	81.7424	81.7424	0.0264	0.0000	82.4033
<b>Total</b>	<b>0.0629</b>	<b>0.6960</b>	<b>0.4632</b>	<b>9.3000e-004</b>	<b>0.0586</b>	<b>0.0298</b>	<b>0.0883</b>	<b>0.0243</b>	<b>0.0274</b>	<b>0.0517</b>	<b>0.0000</b>	<b>81.7424</b>	<b>81.7424</b>	<b>0.0264</b>	<b>0.0000</b>	<b>82.4033</b>

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**3.4 Grading - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	9.3000e-004	9.4500e-003	2.0000e-005	2.3500e-003	2.0000e-005	2.3700e-003	6.3000e-004	2.0000e-005	6.4000e-004	0.0000	2.0939	2.0939	7.0000e-005	0.0000	2.0956
<b>Total</b>	<b>1.3300e-003</b>	<b>9.3000e-004</b>	<b>9.4500e-003</b>	<b>2.0000e-005</b>	<b>2.3500e-003</b>	<b>2.0000e-005</b>	<b>2.3700e-003</b>	<b>6.3000e-004</b>	<b>2.0000e-005</b>	<b>6.4000e-004</b>	<b>0.0000</b>	<b>2.0939</b>	<b>2.0939</b>	<b>7.0000e-005</b>	<b>0.0000</b>	<b>2.0956</b>

**3.5 Building Construction - 2021**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1473	1.3510	1.2846	2.0900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	179.5189	179.5189	0.0433	0.0000	180.6016
<b>Total</b>	<b>0.1473</b>	<b>1.3510</b>	<b>1.2846</b>	<b>2.0900e-003</b>		<b>0.0743</b>	<b>0.0743</b>		<b>0.0699</b>	<b>0.0699</b>	<b>0.0000</b>	<b>179.5189</b>	<b>179.5189</b>	<b>0.0433</b>	<b>0.0000</b>	<b>180.6016</b>

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**3.5 Building Construction - 2021**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1700e-003	0.1772	0.0434	4.3000e-004	0.0106	4.4000e-004	0.0110	3.0500e-003	4.3000e-004	3.4700e-003	0.0000	41.5243	41.5243	2.4700e-003	0.0000	41.5860
Worker	0.0195	0.0136	0.1392	3.4000e-004	0.0347	2.7000e-004	0.0349	9.2300e-003	2.5000e-004	9.4800e-003	0.0000	30.8321	30.8321	1.0400e-003	0.0000	30.8581
<b>Total</b>	<b>0.0247</b>	<b>0.1908</b>	<b>0.1826</b>	<b>7.7000e-004</b>	<b>0.0452</b>	<b>7.1000e-004</b>	<b>0.0459</b>	<b>0.0123</b>	<b>6.8000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>72.3564</b>	<b>72.3564</b>	<b>3.5100e-003</b>	<b>0.0000</b>	<b>72.4441</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1473	1.3510	1.2846	2.0900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	179.5187	179.5187	0.0433	0.0000	180.6014
<b>Total</b>	<b>0.1473</b>	<b>1.3510</b>	<b>1.2846</b>	<b>2.0900e-003</b>		<b>0.0743</b>	<b>0.0743</b>		<b>0.0699</b>	<b>0.0699</b>	<b>0.0000</b>	<b>179.5187</b>	<b>179.5187</b>	<b>0.0433</b>	<b>0.0000</b>	<b>180.6014</b>

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**3.5 Building Construction - 2021**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.1700e-003	0.1772	0.0434	4.3000e-004	0.0106	4.4000e-004	0.0110	3.0500e-003	4.3000e-004	3.4700e-003	0.0000	41.5243	41.5243	2.4700e-003	0.0000	41.5860
Worker	0.0195	0.0136	0.1392	3.4000e-004	0.0347	2.7000e-004	0.0349	9.2300e-003	2.5000e-004	9.4800e-003	0.0000	30.8321	30.8321	1.0400e-003	0.0000	30.8581
<b>Total</b>	<b>0.0247</b>	<b>0.1908</b>	<b>0.1826</b>	<b>7.7000e-004</b>	<b>0.0452</b>	<b>7.1000e-004</b>	<b>0.0459</b>	<b>0.0123</b>	<b>6.8000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>72.3564</b>	<b>72.3564</b>	<b>3.5100e-003</b>	<b>0.0000</b>	<b>72.4441</b>

**3.5 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1237	1.1321	1.1864	1.9500e-003		0.0587	0.0587		0.0552	0.0552	0.0000	168.0008	168.0008	0.0403	0.0000	169.0070
<b>Total</b>	<b>0.1237</b>	<b>1.1321</b>	<b>1.1864</b>	<b>1.9500e-003</b>		<b>0.0587</b>	<b>0.0587</b>		<b>0.0552</b>	<b>0.0552</b>	<b>0.0000</b>	<b>168.0008</b>	<b>168.0008</b>	<b>0.0403</b>	<b>0.0000</b>	<b>169.0070</b>

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**3.5 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4800e-003	0.1574	0.0372	4.0000e-004	9.8700e-003	3.6000e-004	0.0102	2.8500e-003	3.5000e-004	3.2000e-003	0.0000	38.4845	38.4845	2.2500e-003	0.0000	38.5407
Worker	0.0169	0.0113	0.1167	3.1000e-004	0.0324	2.4000e-004	0.0327	8.6300e-003	2.2000e-004	8.8600e-003	0.0000	27.7876	27.7876	8.6000e-004	0.0000	27.8090
<b>Total</b>	<b>0.0214</b>	<b>0.1688</b>	<b>0.1539</b>	<b>7.1000e-004</b>	<b>0.0423</b>	<b>6.0000e-004</b>	<b>0.0429</b>	<b>0.0115</b>	<b>5.7000e-004</b>	<b>0.0121</b>	<b>0.0000</b>	<b>66.2720</b>	<b>66.2720</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>66.3498</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1237	1.1321	1.1864	1.9500e-003		0.0587	0.0587		0.0552	0.0552	0.0000	168.0006	168.0006	0.0403	0.0000	169.0068
<b>Total</b>	<b>0.1237</b>	<b>1.1321</b>	<b>1.1864</b>	<b>1.9500e-003</b>		<b>0.0587</b>	<b>0.0587</b>		<b>0.0552</b>	<b>0.0552</b>	<b>0.0000</b>	<b>168.0006</b>	<b>168.0006</b>	<b>0.0403</b>	<b>0.0000</b>	<b>169.0068</b>

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**3.5 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4800e-003	0.1574	0.0372	4.0000e-004	9.8700e-003	3.6000e-004	0.0102	2.8500e-003	3.5000e-004	3.2000e-003	0.0000	38.4845	38.4845	2.2500e-003	0.0000	38.5407
Worker	0.0169	0.0113	0.1167	3.1000e-004	0.0324	2.4000e-004	0.0327	8.6300e-003	2.2000e-004	8.8600e-003	0.0000	27.7876	27.7876	8.6000e-004	0.0000	27.8090
<b>Total</b>	<b>0.0214</b>	<b>0.1688</b>	<b>0.1539</b>	<b>7.1000e-004</b>	<b>0.0423</b>	<b>6.0000e-004</b>	<b>0.0429</b>	<b>0.0115</b>	<b>5.7000e-004</b>	<b>0.0121</b>	<b>0.0000</b>	<b>66.2720</b>	<b>66.2720</b>	<b>3.1100e-003</b>	<b>0.0000</b>	<b>66.3498</b>

**3.6 Paving - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	3.3300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0144</b>	<b>0.1113</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.2200e-003</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>20.0276</b>	<b>20.0276</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1895</b>

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**3.6 Paving - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.1000e-004	4.2400e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0086	1.0086	3.0000e-005	0.0000	1.0094
<b>Total</b>	<b>6.1000e-004</b>	<b>4.1000e-004</b>	<b>4.2400e-003</b>	<b>1.0000e-005</b>	<b>1.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1900e-003</b>	<b>3.1000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>1.0086</b>	<b>1.0086</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0094</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	3.3300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0144</b>	<b>0.1113</b>	<b>0.1458</b>	<b>2.3000e-004</b>		<b>5.6800e-003</b>	<b>5.6800e-003</b>		<b>5.2200e-003</b>	<b>5.2200e-003</b>	<b>0.0000</b>	<b>20.0275</b>	<b>20.0275</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1895</b>

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**3.6 Paving - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.1000e-004	4.2400e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0086	1.0086	3.0000e-005	0.0000	1.0094
<b>Total</b>	<b>6.1000e-004</b>	<b>4.1000e-004</b>	<b>4.2400e-003</b>	<b>1.0000e-005</b>	<b>1.1800e-003</b>	<b>1.0000e-005</b>	<b>1.1900e-003</b>	<b>3.1000e-004</b>	<b>1.0000e-005</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>1.0086</b>	<b>1.0086</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0094</b>

**3.7 Architectural Coating - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
<b>Total</b>	<b>0.7792</b>	<b>0.0141</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

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**3.7 Architectural Coating - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.1100e-003	1.0000e-005	8.6000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7397	0.7397	2.0000e-005	0.0000	0.7402
<b>Total</b>	<b>4.5000e-004</b>	<b>3.0000e-004</b>	<b>3.1100e-003</b>	<b>1.0000e-005</b>	<b>8.6000e-004</b>	<b>1.0000e-005</b>	<b>8.7000e-004</b>	<b>2.3000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.7397</b>	<b>0.7397</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7402</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7771					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
<b>Total</b>	<b>0.7792</b>	<b>0.0141</b>	<b>0.0181</b>	<b>3.0000e-005</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>		<b>8.2000e-004</b>	<b>8.2000e-004</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>2.5574</b>

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**3.7 Architectural Coating - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.0000e-004	3.1100e-003	1.0000e-005	8.6000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7397	0.7397	2.0000e-005	0.0000	0.7402
<b>Total</b>	<b>4.5000e-004</b>	<b>3.0000e-004</b>	<b>3.1100e-003</b>	<b>1.0000e-005</b>	<b>8.6000e-004</b>	<b>1.0000e-005</b>	<b>8.7000e-004</b>	<b>2.3000e-004</b>	<b>1.0000e-005</b>	<b>2.4000e-004</b>	<b>0.0000</b>	<b>0.7397</b>	<b>0.7397</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.7402</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0954	0.5072	1.1051	3.5900e-003	0.2935	3.5800e-003	0.2971	0.0790	3.3600e-003	0.0824	0.0000	330.2215	330.2215	0.0137	0.0000	330.5649
Unmitigated	0.0954	0.5072	1.1051	3.5900e-003	0.2935	3.5800e-003	0.2971	0.0790	3.3600e-003	0.0824	0.0000	330.2215	330.2215	0.0137	0.0000	330.5649

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Government (Civic Center)	83.20	0.00	0.00	113,608	113,608
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	238.00	247.75	215.50	677,528	677,528
Parking Lot	0.00	0.00	0.00		
<b>Total</b>	<b>321.20</b>	<b>247.75</b>	<b>215.50</b>	<b>791,136</b>	<b>791,136</b>

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	7.30	7.50	42.90	19.50	37.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

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**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Government (Civic Center)	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Other Asphalt Surfaces	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Single Family Housing	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037
Parking Lot	0.586631	0.037797	0.168261	0.105494	0.026152	0.006386	0.029932	0.027401	0.003107	0.001767	0.005158	0.000878	0.001037

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Install High Efficiency Lighting

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.7791	75.7791	3.4300e-003	7.1000e-004	76.0760
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.7791	75.7791	3.4300e-003	7.1000e-004	76.0760
NaturalGas Mitigated	4.1800e-003	0.0359	0.0163	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	41.3745	41.3745	7.9000e-004	7.6000e-004	41.6203
NaturalGas Unmitigated	4.1800e-003	0.0359	0.0163	2.3000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	41.3745	41.3745	7.9000e-004	7.6000e-004	41.6203

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**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Government (Civic Center)	48700.7	2.6000e-004	2.3900e-003	2.0100e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5989	2.5989	5.0000e-005	5.0000e-005	2.6143
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	726627	3.9200e-003	0.0335	0.0143	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.7756	38.7756	7.4000e-004	7.1000e-004	39.0060
<b>Total</b>		<b>4.1800e-003</b>	<b>0.0359</b>	<b>0.0163</b>	<b>2.2000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>	<b>0.0000</b>	<b>41.3745</b>	<b>41.3745</b>	<b>7.9000e-004</b>	<b>7.6000e-004</b>	<b>41.6203</b>

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**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					
Government (Civic Center)	48700.7	2.6000e-004	2.3900e-003	2.0100e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	2.5989	2.5989	5.0000e-005	5.0000e-005	2.6143
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Single Family Housing	726627	3.9200e-003	0.0335	0.0143	2.1000e-004		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	38.7756	38.7756	7.4000e-004	7.1000e-004	39.0060
<b>Total</b>		<b>4.1800e-003</b>	<b>0.0359</b>	<b>0.0163</b>	<b>2.2000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>	<b>0.0000</b>	<b>41.3745</b>	<b>41.3745</b>	<b>7.9000e-004</b>	<b>7.6000e-004</b>	<b>41.6203</b>

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**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	53044.2	15.4312	7.0000e-004	1.4000e-004	15.4916
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5180	1.5069	7.0000e-005	1.0000e-005	1.5128
Single Family Housing	202264	58.8410	2.6600e-003	5.5000e-004	59.0716
<b>Total</b>		<b>75.7791</b>	<b>3.4300e-003</b>	<b>7.0000e-004</b>	<b>76.0760</b>

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**5.3 Energy by Land Use - Electricity**

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Government (Civic Center)	53044.2	15.4312	7.0000e-004	1.4000e-004	15.4916
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	5180	1.5069	7.0000e-005	1.0000e-005	1.5128
Single Family Housing	202264	58.8410	2.6600e-003	5.5000e-004	59.0716
<b>Total</b>		<b>75.7791</b>	<b>3.4300e-003</b>	<b>7.0000e-004</b>	<b>76.0760</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- Use only Natural Gas Hearths
- Use Low VOC Cleaning Supplies

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2658	0.0175	0.1936	1.1000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	18.0278	18.0278	6.4000e-004	3.2000e-004	18.1406
Unmitigated	1.8467	0.0328	2.1234	3.5200e-003		0.2725	0.2725		0.2725	0.2725	25.8239	11.1358	36.9598	0.0241	2.0300e-003	38.1684

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.5687	0.0306	1.9363	3.5100e-003		0.2715	0.2715		0.2715	0.2715	25.8239	10.8302	36.6541	0.0238	2.0300e-003	37.8552
Landscaping	5.7300e-003	2.1500e-003	0.1871	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3057	0.3057	3.0000e-004	0.0000	0.3131
<b>Total</b>	<b>1.8467</b>	<b>0.0328</b>	<b>2.1234</b>	<b>3.5200e-003</b>		<b>0.2725</b>	<b>0.2725</b>		<b>0.2725</b>	<b>0.2725</b>	<b>25.8239</b>	<b>11.1358</b>	<b>36.9598</b>	<b>0.0241</b>	<b>2.0300e-003</b>	<b>38.1684</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0777					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1806					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.7900e-003	0.0153	6.5100e-003	1.0000e-004		1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003	0.0000	17.7221	17.7221	3.4000e-004	3.2000e-004	17.8274
Landscaping	5.7300e-003	2.1500e-003	0.1871	1.0000e-005		1.0300e-003	1.0300e-003		1.0300e-003	1.0300e-003	0.0000	0.3057	0.3057	3.0000e-004	0.0000	0.3131
<b>Total</b>	<b>0.2658</b>	<b>0.0175</b>	<b>0.1936</b>	<b>1.1000e-004</b>		<b>2.2700e-003</b>	<b>2.2700e-003</b>		<b>2.2700e-003</b>	<b>2.2700e-003</b>	<b>0.0000</b>	<b>18.0278</b>	<b>18.0278</b>	<b>6.4000e-004</b>	<b>3.2000e-004</b>	<b>18.1406</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower
- Use Water Efficient Irrigation System
- Use Water Efficient Landscaping

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.6891	0.0581	1.4100e-003	6.5599
Unmitigated	5.6155	0.0726	1.7500e-003	7.9531

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	0.592006 / 0.362842	1.4892	0.0194	4.7000e-004	2.1123
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.62885 / 1.02688	4.1263	0.0532	1.2900e-003	5.8408
<b>Total</b>		<b>5.6155</b>	<b>0.0726</b>	<b>1.7600e-003</b>	<b>7.9531</b>

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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Government (Civic Center)	0.473605 / 0.340709	1.2427	0.0155	3.7000e-004	1.7414
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.30308 / 0.964244	3.4464	0.0426	1.0300e-003	4.8186
<b>Total</b>		<b>4.6891</b>	<b>0.0581</b>	<b>1.4000e-003</b>	<b>6.5599</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

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**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.5873	0.5666	0.0000	23.7520
Unmitigated	9.5873	0.5666	0.0000	23.7520

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	16.99	3.4488	0.2038	0.0000	8.5443
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	30.24	6.1385	0.3628	0.0000	15.2077
<b>Total</b>		<b>9.5873</b>	<b>0.5666</b>	<b>0.0000</b>	<b>23.7520</b>

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**8.2 Waste by Land Use**

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Government (Civic Center)	16.99	3.4488	0.2038	0.0000	8.5443
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	30.24	6.1385	0.3628	0.0000	15.2077
<b>Total</b>		<b>9.5873</b>	<b>0.5666</b>	<b>0.0000</b>	<b>23.7520</b>

**9.0 Operational Offroad**

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

**Fire Pumps and Emergency Generators**

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

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

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Equipment Type	Number
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### 11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	-21.5500	0.0000	0.0000	-21.5500

### 11.1 Vegetation Land Change

#### Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	23 / 18	-21.5500	0.0000	0.0000	-21.5500
Trees	23 / 23	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>-21.5500</b>	<b>0.0000</b>	<b>0.0000</b>	<b>-21.5500</b>