

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

1 Willowbrook Court, Suite 120
Petaluma, California 94954

Tel: 707-794-0400
www.illingworthrodkin.com

Fax: 707-794-0405
illro@illingworthrodkin.com

M E M O

Date: June 27, 2018

To: **Kristy Weis**
kweis@davidjpowers.com

From: James A. Reyff
Illingworth & Rodkin, Inc.
1 Willowbrook Court, Suite 120
Petaluma, CA 94954

RE: **Vallco Special Area Specific Plan – Cupertino, CA**

SUBJECT: **Housing Rich Alternative Air Quality Modeling** Job#18-004

This memo addresses additional air quality and greenhouse gas GHG emissions modeling associated with the Vallco Special Area Specific Plan Air Quality and Greenhouse Gas Emissions Assessment, dated May 21, 2018. That air quality analysis used the California Emissions Estimator Model, CalEEMod (Version 2016.3.2) to predict construction and operational period emissions of criteria air pollutants (and their precursors) and GHG. This memo addresses the air pollutant and GHG modeling for a new project alternative.

A “Housing Rich” Alternative was evaluated. The additional modeling assumed the following land uses (as entered into the CalEEMod model):

- 600,000 sf entered as “Regional Shopping Center;”
- 3,240 dwelling units entered as “Apartments Mid Rise;”
- 1,500,000 sf entered as “General Office Building;”
- 339 rooms entered as “Hotel;”
- Transit hub entered as “User Defined Parking;”
- 38 acres entered as “City Park”/Green Roof,
- 50,000 sf entered as “Government (Civic Center),”
- 15,000 sf entered as “Junior College (2 Yr),”
- 11,391 spaces entered as “Enclosed Parking with Elevator.”

Impact 1: Conflict with or obstruct implementation of an applicable air quality plan?

This impact was assessed by evaluating the specific plan with *Bay Area 2017 Clean Air Plan* control measures to identify any inconsistencies that would conflict with implementation of the

plan. This analysis for the proposed project did not identify any inconsistencies. This proposed alternative would have similar effects. The effect of specific plan vehicle travel growth in comparison to population growth could not be addressed because the current uses in the plan area do not include any residences (no population). The effect of vehicle travel on air quality is addressed under Impacts 2 and 3.

Impact 2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The CalEEMod model was used to predict both construction and operational period emissions in the same manner as the proposed project.

Construction

Average daily construction exhaust emissions were predicted using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. Inputs to the model included the proposed land uses, construction start year, total 10-year expected duration (this was increased over CalEEMod's default 6-year schedule), 2,100,000 cubic yard (cy) of soil export, and 2,170,350 square feet (sf) of demolition. The model predicts emissions of ozone precursor pollutants (i.e., ROG and NO_x) and particulate matter (i.e., PM₁₀ and PM_{2.5}). The model also computes emissions of CO₂. The project schedule assumes that the project would be built out over a period of approximately 10 years beginning in 2019, or an estimated 2,600 construction workdays (based on an average of 260 workdays per year). Average daily emissions were computed by dividing the total construction emissions by the number of construction days. The effect of Mitigation Measures AQ-1 and AQ-2 were applied to the modeling results. Table 1 shows average daily construction emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust during construction of the project. Table 1 also shows the emissions with implementation of Mitigation Measures AQ-1 and AQ-2 (see May 2018 assessment). Emissions of NO_x during construction would be considered significant.

TABLE 1 Construction Period Emissions

Scenario	ROG	NO _x	PM ₁₀ Exhaust	PM _{2.5} Exhaust
Housing Rich Alternative Construction Emissions (tons)	60.91 tons	217.69 tons	1.80 tons	1.69 tons
Average daily emissions (pounds) ¹	46.9 lbs.	167.5 lbs.	1.4 lbs.	1.3 lbs.
BAAQMD Thresholds (pounds per day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Exceed Threshold?	No	Yes	No	No
Mitigated Proposed Project Construction Emissions (tons)		165.4 tons ²		
Mitigated average daily emissions (pounds) ¹		127.3 lbs.		
BAAQMD Thresholds (pounds per day)	54 lbs.	54 lbs.	82 lbs.	54 lbs.
Exceed Threshold?	No	Yes	No	No
¹ Based on an average of 2,600 construction days. ² Assumes 10% reduction due to use of Tier 4 construction equipment, 12% reduction due to use of newer model trucks used for hauling soil, demolition materials and equipment, additional 2 percent through idling restrictions and worker TDM program.				

Operational Emissions

Long-term area and mobile source emissions from operation and use of subsequent development under this alternative were modeled using CalEEMod. Implementation of the Plan could include stationary sources of pollutants that would be required to obtain permits to operate in compliance with BAAQMD rules. These sources include, but are not limited to, heating boilers or back up diesel-powered generators. The permit process ensures that these sources would be equipped with the required emission controls and that, individually, these sources would result in a less-than-significant impact.

The forecasted project trip generation rates, which include adjustments for a mix of uses, were input to the model. These were assumed to represent weekday conditions, so the rates for Saturdays and Sundays were computed based on the proportional adjustments using default rates in CalEEMod. The default trip lengths and trip types specified by CalEEMod were used but results were post-processed to reflect vehicle miles travelled (VMT) forecasted in the traffic report. The project traffic report contains an estimate of VMT, whereas the CalEEMod model provides only an estimate of annual VMT. The daily weekday VMT was computed from CalEEMod using relative difference between daily weekday and weekend trip rates and the number of weekdays per year. The average weekday rate using CalEEMod is 288,733 miles. The daily VMT reported in the traffic study is 401,316 miles. To be conservative, CalEEMod mobile emissions were adjusted by a factor of 1.39 to account for this discrepancy between the CalEEMod VMT and the project traffic report estimated VMT.

Modeled operational period emissions in tons per year and pounds per day are summarized in Table 2. Table 2 also shows the effect of implementing Mitigation Measure AQ-3 identified in the May 2018 assessment. Note that similar to the May 2018 assessment for the proposed project, emissions of ROG, NO_x and PM₁₀ would be significant. In addition, emissions of PM_{2.5} would be significant under this alternative.

TABLE 2 2029 Operational Air Pollutant Emissions

Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
Existing Operational Emissions (tons)	2.65 tons	5.29 tons	5.82 tons	1.58 tons
Unmitigated Project				
Proposed Project – non-mobile (tons)	28.31 tons	4.08 tons	0.42 tons	0.42 tons
Proposed Project –mobile (tons)	9.84 tons	41.34 tons	51.18 tons	13.91 tons
Net Proposed Project (tons)	35.50 tons	40.13 tons	45.78 tons	12.75 tons
<i>BAAQMD Thresholds (tons per year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
Exceed Threshold?	Yes	Yes	Yes	Yes
Net Proposed Project (pounds per day)	194.5	219.9 lbs.	250.8 lbs.	69.86 lbs.
<i>BAAQMD Thresholds (pounds per day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
Exceed Threshold?	Yes	Yes	Yes	Yes
Mitigated Project				
Proposed Project – non-mobile (tons)	26.20 tons	3.97 tons	0.42 tons	0.42 tons
Proposed Project –mobile (tons)	9.84 tons	41.34 tons	51.18 tons	13.91 tons
Net Proposed Project (tons)	33.39 tons	40.01 tons	45.78 tons	12.75 tons
<i>BAAQMD Thresholds (tons per year)</i>	<i>10 tons</i>	<i>10 tons</i>	<i>15 tons</i>	<i>10 tons</i>
Exceed Threshold?	Yes	Yes	Yes	Yes
Net Proposed Project (pounds per day)	183.0	219.2 lbs.	250.8 lbs.	69.86 lbs.
<i>BAAQMD Thresholds (pounds per day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
Exceed Threshold?	Yes	Yes	Yes	Yes

Impact 3: Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Recognizing the relatively low CO concentrations experienced in the Bay Area, the BAAQMD's CEQA Air Quality Guidelines state that a project would have a less-than-significant impact if it would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour. Peak hour traffic volumes would be far less. Since intersections affected by the project would have volumes less than the threshold of 44,000 vehicles per hour, the impact of the project related to localized CO concentrations would therefore be less than significant.

Impact 4: Expose project sensitive receptors to substantial pollutant concentrations?

Subsequent land use activities associated with implementation of the Plan could potentially include short-term construction sources of TACs and long-term operational sources of TACs, including stationary and mobile sources.

Long-Term Operational Sources

The Proposed Project and Alternatives would allow growth of new residential land uses that would include sensitive receptors and new non-residential land uses that are a potential for new emissions sources. Typically, new sources would be evaluated through the BAAQMD permit process or the CEQA process to identify and mitigate any significant exposures. The effect of existing sources of TACs and PM2.5 were evaluated across the Plan area in the May 2018 assessment. That analysis applies to this alternative. PM2.5 exposure was found to be the driving community risk effect. Figures 1 through 4 described these exposures and depict the areas where exposures would be significant. Implementation of Mitigation Measure AQ-4 (see May 2018 assessment) would reduce impacts related to the siting of receptors to a level of less than significant.

Construction

Implementation of the Plan would result in the potential construction of a variety of projects. This construction would result in short-term emissions of DPM, a TAC and PM2.5, that would be significant.

Modeling of construction community risk impacts was conducted in the manner that was used in the May 2018 assessment. Emissions modeling was conducted using CalEEMod, as described under Impact 2. To reflect on- and near-site travel of on-road vehicles associated with construction (i.e., trucks and worker traffic), a travel distance of 1 mile was used in the modeling. Dispersion modeling was conducted with the EPA AERMOD modeling using the same source, receptor, and meteorological data used in the DEIR. Emissions data obtained from CalEEMod for DPM emissions (i.e., exhaust PM10) and fugitive PM2.5 were input as emissions to the AERMOD model.

Community risk impacts from construction of the Housing Rich Alternative would be similar to the Proposed Project (see May 2018 assessment). Table 3 shows the impacts from project construction. Maximum excess residential cancer risks, assuming infant and child exposures, would be 27.0 in one million. Adult increased cancer risk would be less than 1 chance per million.

The maximum increased PM_{2.5} exposure would be 0.25µg/m³ and the maximum Hazard Index would be 0.01. Maximum cancer risks, annual PM_{2.5} concentrations and Hazard Index occurred at the same receptor that had maximum impacts from Increased cancer risk caused by construction would be significant.

TABLE 3 Community Risk Assessment at Construction MEI

Source	Maximum Cancer Risk (per million)	Maximum Annual PM _{2.5} Concentration (µg/m ³)	Maximum Hazard Index
Project Construction			
- Unmitigated	27.0	0.25	0.01
- Mitigated	2.9	0.06	
BAAQMD Threshold – any Single Source	10.0	0.3	1.0
Stevens Creek Boulevard	0.4	0.06	<0.01
North Wolfe Road	1.8	0.28	<0.01
Vallco Parkway	7.1	0.21	<0.03
I-280 ¹	--	--	--
Apple Inc, Plant 18440 10500 Ridgeview Court ¹	--	--	--
Apple Inc, Plant 18604 19333 Vallco Parkway	0.1	0.00	<0.01
Conoco Phillips #2611220, Plant G9315 19550 Stevens Creek Boulevard ¹	--	--	--
Combined Total	36.4	0.80	<0.07
BAAQMD Threshold – Combined Sources	>100	>0.8	>10.0
Exceeds any Threshold?	Unmitigated: Yes Mitigated: No	No	No

Note: ¹This source is over 1,000 feet from the construction MEI.

Effectiveness of Mitigation

Implementation of *Mitigation Measure AQ-1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure AQ-2* would further reduce on-site diesel exhaust emissions by at least 65 percent, which would reduce the cancer risk to below 10.0 per million. A mitigation scenario with Tier 4 interim construction equipment indicates that the computed maximum increased cancer risk for construction would be 2.9 in one million or less. The cancer risk would be below the BAAQMD threshold of greater than 10 per one million for cancer risk.

Impact 5: Create objectionable odors affecting a substantial number of people?

As described in the DEIR, subsequent land use activities associated with implementation of the Plan could allow for the development of uses that have the potential to produce odorous emissions either during the construction or operation of future development. Additionally, subsequent land use activities may allow for the construction of sensitive land uses (i.e., residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions.

Future construction activities could result in odorous emissions from diesel exhaust associated with construction equipment. However, because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions

would be limited.

The DEIR provides a list of the types of potential odor sources and screening buffer distance to avoid any odor complaints. The project does not propose any of these uses. Subsequent land use activities may allow for the construction of sensitive land uses (i.e., residential development, schools, parks, offices, etc.) near existing or future sources of odorous emissions.

Impact 6: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions were computed for this alternative using the CalEEMod model, as described under Impact 2. Emissions rates in CalEEMod associated with electricity consumption were adjusted to account for the proposed use of Silicon Valley Clean Energy's 100 percent carbon-free electricity. Default model assumptions for GHG emissions associated with area sources, solid waste generation and water/wastewater use were applied. The model includes the 2016 Title 24 Building Standards, so, default rates for energy consumption were assumed in the model. CalEEMod predicts emissions of GHG in the form of equivalent carbon dioxide emissions or CO₂e in metric tons per year.

GHG emissions are expressed in terms of emissions per service population, where service population is the estimated number of new residents and employees. The estimated 2029 service population for the Housing Rich Alternative is 14,085, based on 6,500 new residents and 7,585 new workers.

The DEIR used a 2030 project-level GHG emission efficiency metric of 2.6 MT of CO₂e per service population (S.P.) per year was developed as a significance threshold. GHG emissions resulting from operation of the Housing Rich Alternative were compared to this threshold.

Table 4 shows the construction emissions, total and average annual, and the year 2029 annual operational emissions. GHG emissions are expressed in terms of annual metric tons of equivalent CO₂ (or CO₂e) emissions (MT of CO₂e/yr) and per service population emissions.

TABLE 4 2029 GHG Emissions (MT of CO₂e)

Source Category	Existing	Housing Rich Alternative
Construction - total		91,976
Construction -average annual		9,198
Area	<1	41
Energy Consumption	38	4,136
Mobile	4,803	41,577
Solid Waste Generation	157	2,018
Water Usage	30	590
Total	5,028	48,362
Efficiency Metric		3.43
2030 Substantial Progress Threshold		2.6

Attachments:

1. Construction and Operational CalEEMod Output
2. Construction Health Risk Assessment

Attachment 1: CalEEMod Output – Construction and Operational Emissions

Vallco, Cupertino - Housing Rich Project - Santa Clara County, Annual

Vallco, Cupertino - Housing Rich Project

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,500.00	1000sqft	58.00	1,500,000.00	0
Government (Civic Center)	50.00	1000sqft	0.00	50,000.00	0
	0.00		0.00	0.00	0
Junior College (2Yr)	15.00	1000sqft	0.00	15,000.00	0
Enclosed Parking with Elevator	11,391.00	Space	0.00	4,556,400.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
City Park	38.00	Acre	0.00	1,655,280.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	3,250.00	Dwelling Unit	0.00	3,250,000.00	9295
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT -

Demolition - 2,170,350 sf demo

Grading - 2,100,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC paint, no hearth

Energy Mitigation - energy efficient appliances

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	55
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	55
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	75.00	130.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	487.50	1,011.00
tblFireplaces	NumberWood	552.50	0.00

tblGrading	MaterialExported	0.00	2,100,000.00
tblLandUse	LotAcreage	34.44	58.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	102.52	0.00
tblLandUse	LotAcreage	38.00	0.00
tblLandUse	LotAcreage	11.30	0.00
tblLandUse	LotAcreage	85.53	0.00
tblLandUse	LotAcreage	13.77	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	6.39	4.18
tblVehicleTrips	ST_TR	22.75	182.00
tblVehicleTrips	ST_TR	2.46	2.20
tblVehicleTrips	ST_TR	8.19	6.71
tblVehicleTrips	ST_TR	11.23	9.41
tblVehicleTrips	ST_TR	49.97	31.73
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	SU_TR	5.86	3.83
tblVehicleTrips	SU_TR	16.74	134.00
tblVehicleTrips	SU_TR	1.05	0.94
tblVehicleTrips	SU_TR	5.95	4.87
tblVehicleTrips	SU_TR	1.21	1.01
tblVehicleTrips	SU_TR	25.24	16.02

tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	WD_TR	6.65	4.35
tblVehicleTrips	WD_TR	1.89	15.12
tblVehicleTrips	WD_TR	11.03	9.88
tblVehicleTrips	WD_TR	27.92	18.08
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	27.49	23.04
tblVehicleTrips	WD_TR	42.70	27.11
tblVehicleTrips	WD_TR	0.00	808.00
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2019	0.9233	18.9908	5.8946	0.0402	4.2225	0.3247	4.5472	1.1765	0.3018	1.4783	0.0000	3,847.3161	3,847.3161	0.3077	0.0000	3,855.0097
2020	2.9722	46.0778	22.1104	0.1411	6.6942	0.3898	7.0839	1.8613	0.3658	2.2271	0.0000	13,386.7628	13,386.7628	0.6845	0.0000	13,403.8758
2021	3.3664	28.0549	26.0559	0.1224	7.6011	0.2168	7.8178	2.0574	0.2039	2.2613	0.0000	11,402.4718	11,402.4718	0.4522	0.0000	11,413.7774
2022	3.1208	26.2281	24.1491	0.1193	7.5721	0.1887	7.7607	2.0495	0.1775	2.2270	0.0000	11,119.5136	11,119.5136	0.4264	0.0000	11,130.1726
2023	2.7887	20.4148	22.2413	0.1154	7.5722	0.1475	7.7196	2.0495	0.1383	2.1879	0.0000	10,766.0692	10,766.0692	0.3778	0.0000	10,775.5149
2024	2.6585	20.1025	21.1360	0.1138	7.6305	0.1363	7.7668	2.0653	0.1278	2.1932	0.0000	10,626.4030	10,626.4030	0.3668	0.0000	10,635.5730
2025	2.5157	19.5628	19.9005	0.1110	7.6014	0.1238	7.7252	2.0575	0.1160	2.1735	0.0000	10,367.6468	10,367.6468	0.3530	0.0000	10,376.4722
2026	2.4149	19.2492	18.9525	0.1089	7.6015	0.1225	7.7240	2.0575	0.1148	2.1723	0.0000	10,174.7868	10,174.7868	0.3427	0.0000	10,183.3550

2027	2.2429	18.3268	17.5558	0.1034	7.3400	0.1182	7.4582	1.9867	0.1107	2.0975	0.0000	9,666.4085	9,666.4085	0.3247	0.0000	9,674.5265
2028	37.9086	0.6780	2.0501	5.8700e-003	0.6104	0.0317	0.6421	0.1623	0.0295	0.1918	0.0000	526.8529	526.8529	0.0458	0.0000	527.9989
Maximum	37.9086	46.0778	26.0559	0.1411	7.6305	0.3898	7.8178	2.0653	0.3658	2.2613	0.0000	13,386.7628	13,386.7628	0.6845	0.0000	13,403.8758

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.4686	13.7392	5.9173	0.0402	2.4459	0.0608	2.5067	0.6489	0.0586	0.7074	0.0000	3,847.3155	3,847.3155	0.3077	0.0000	3,855.0091
2020	2.6037	41.8220	21.6977	0.1411	6.1141	0.1832	6.2973	1.6617	0.1749	1.8366	0.0000	13,307.1626	13,307.1626	0.6710	0.0000	13,323.9380
2021	3.1387	25.8684	25.1499	0.1224	7.6011	0.0944	7.6954	2.0574	0.0890	2.1464	0.0000	11,246.2700	11,246.2700	0.4265	0.0000	11,256.9336
2022	2.9193	24.2860	23.2741	0.1193	7.5721	0.0862	7.6582	2.0495	0.0812	2.1307	0.0000	10,963.9008	10,963.9008	0.4013	0.0000	10,973.9331
2023	2.6046	18.6327	21.3818	0.1154	7.5722	0.0592	7.6314	2.0495	0.0554	2.1050	0.0000	10,610.4575	10,610.4575	0.3533	0.0000	10,619.2894
2024	2.4862	18.4300	20.2801	0.1138	7.6305	0.0587	7.6892	2.0653	0.0550	2.1203	0.0000	10,469.5956	10,469.5956	0.3425	0.0000	10,478.1579
2025	2.3576	18.0238	19.0585	0.1110	7.6014	0.0577	7.6591	2.0575	0.0540	2.1115	0.0000	10,211.4360	10,211.4360	0.3292	0.0000	10,219.6667
2026	2.2568	17.7102	18.1105	0.1089	7.6015	0.0564	7.6579	2.0575	0.0528	2.1103	0.0000	10,018.5759	10,018.5759	0.3189	0.0000	10,026.5495
2027	2.0874	16.8078	16.7551	0.1034	7.3400	0.0526	7.3926	1.9867	0.0493	2.0360	0.0000	9,515.5842	9,515.5842	0.3018	0.0000	9,523.1281
2028	37.8591	0.1579	2.0969	5.8700e-003	0.6104	5.3300e-003	0.6157	0.1623	5.0900e-003	0.1674	0.0000	510.2566	510.2566	0.0449	0.0000	511.3799
Maximum	37.8591	41.8220	25.1499	0.1411	7.6305	0.1832	7.6954	2.0653	0.1749	2.1464	0.0000	13,307.1626	13,307.1626	0.6710	0.0000	13,323.9380

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	3.50	10.20	3.51	0.00	3.66	60.31	5.20	4.15	59.96	9.05	0.00	1.29	1.29	5.01	0.00	1.29

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	2.0521	0.8683
2	4-1-2019	6-30-2019	2.0549	0.8579
3	7-1-2019	9-30-2019	1.6482	0.0938
4	10-1-2019	12-31-2019	14.3296	12.5631
5	1-1-2020	3-31-2020	15.8304	14.1864
6	4-1-2020	6-30-2020	15.4180	13.7847
7	7-1-2020	9-30-2020	8.6629	7.9903
8	10-1-2020	12-31-2020	8.8852	8.2126
9	1-1-2021	3-31-2021	7.8377	7.2431
10	4-1-2021	6-30-2021	7.7403	7.1390
11	7-1-2021	9-30-2021	7.8253	7.2175
12	10-1-2021	12-31-2021	8.0119	7.4040
13	1-1-2022	3-31-2022	7.3459	6.8159
14	4-1-2022	6-30-2022	7.2619	6.7260
15	7-1-2022	9-30-2022	7.3417	6.7999
16	10-1-2022	12-31-2022	7.5091	6.9674
17	1-1-2023	3-31-2023	5.8203	5.3341
18	4-1-2023	6-30-2023	5.7518	5.2602
19	7-1-2023	9-30-2023	5.8150	5.3180
20	10-1-2023	12-31-2023	5.9496	5.4527
21	1-1-2024	3-31-2024	5.7254	5.2677
22	4-1-2024	6-30-2024	5.5999	5.1422
23	7-1-2024	9-30-2024	5.6615	5.1987
24	10-1-2024	12-31-2024	5.7883	5.3256
25	1-1-2025	3-31-2025	5.5111	5.0931
26	4-1-2025	6-30-2025	5.4538	5.0311
27	7-1-2025	9-30-2025	5.5137	5.0864
28	10-1-2025	12-31-2025	5.6335	5.2063
29	1-1-2026	3-31-2026	5.4051	4.9871

30	4-1-2026	6-30-2026	5.3524	4.9298
31	7-1-2026	9-30-2026	5.4112	4.9839
32	10-1-2026	12-31-2026	5.5252	5.0980
33	1-1-2027	3-31-2027	5.3017	4.8837
34	4-1-2027	6-30-2027	5.2536	4.8310
35	7-1-2027	9-30-2027	5.3114	4.8841
36	10-1-2027	12-31-2027	4.8091	4.4015
37	1-1-2028	3-31-2028	0.3104	0.0503
38	4-1-2028	6-30-2028	2.5697	2.3359
39	7-1-2028	9-30-2028	19.2117	19.1684
		Highest	19.2117	19.1684

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	27.8976	0.3878	24.2828	1.9800e-003		0.1430	0.1430		0.1430	0.1430	0.0000	165.8801	165.8801	0.0408	2.3100e-003	167.5900
Energy	0.4155	3.6942	2.5669	0.0227		0.2870	0.2870		0.2870	0.2870	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157
Mobile	7.0826	29.7435	78.4433	0.3249	36.5946	0.2294	36.8240	9.7934	0.2132	10.0067	0.0000	29,889.2950	29,889.2950	0.8826	0.0000	29,911.3591
Waste						0.0000	0.0000		0.0000	0.0000	814.6778	0.0000	814.6778	48.1461	0.0000	2,018.3299
Water						0.0000	0.0000		0.0000	0.0000	171.9715	0.0000	171.9715	17.6631	0.4171	737.8348
Total	35.3956	33.8255	105.2930	0.3495	36.5946	0.6595	37.2541	9.7934	0.6433	10.4368	986.6494	34,166.6583	35,153.3076	66.8114	0.4948	36,971.0295

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	27.8848	0.2789	24.2365	1.2800e-003		0.1342	0.1342		0.1342	0.1342	0.0000	39.6676	39.6676	0.0384	0.0000	40.6275
Energy	0.4155	3.6942	2.5669	0.0227		0.2870	0.2870		0.2870	0.2870	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157
Mobile	7.0826	29.7435	78.4433	0.3249	36.5946	0.2294	36.8240	9.7934	0.2132	10.0067	0.0000	29,889.2950	29,889.2950	0.8826	0.0000	29,911.3591
Waste						0.0000	0.0000		0.0000	0.0000	814.6778	0.0000	814.6778	48.1461	0.0000	2,018.3299
Water						0.0000	0.0000		0.0000	0.0000	137.5772	0.0000	137.5772	14.1305	0.3337	590.2679
Total	35.3828	33.7166	105.2466	0.3488	36.5946	0.6507	37.2453	9.7934	0.6345	10.4280	952.2551	34,040.4457	34,992.7008	63.2764	0.4090	36,696.5000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.04	0.32	0.04	0.20	0.00	1.34	0.02	0.00	1.37	0.08	3.49	0.37	0.46	5.29	17.33	0.74

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 6,581,250; Residential Outdoor: 2,193,750; Non-Residential Indoor: 3,985,842; Non-Residential Outdoor: 1,328,614;

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

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	9,872.00	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	262,500.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,850.00	1,801.00	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	1,170.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0682	0.0000	1.0682	0.1617	0.0000	0.1617	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2284	2.3259	1.4339	2.5200e-003		0.1167	0.1167		0.1085	0.1085	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365
Total	0.2284	2.3259	1.4339	2.5200e-003	1.0682	0.1167	1.1849	0.1617	0.1085	0.2703	0.0000	225.0711	225.0711	0.0626	0.0000	226.6365

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	0.0484	1.5395	0.3308	4.0100e-003	0.0914	5.9500e-003	0.0973	0.0251	5.6900e-003	0.0308	0.0000	387.2356	387.2356	0.0180	0.0000	387.6859

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					0.2403	0.0000	0.2403	0.0364	0.0000	0.0364	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0301	0.1302	1.5132	2.5200e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362
Total	0.0301	0.1302	1.5132	2.5200e-003	0.2403	4.0100e-003	0.2444	0.0364	4.0100e-003	0.0404	0.0000	225.0709	225.0709	0.0626	0.0000	226.6362

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	0.0449	1.5368	0.3036	3.9300e-003	0.0837	5.9000e-003	0.0896	0.0230	5.6400e-003	0.0287	0.0000	380.3903	380.3903	0.0178	0.0000	380.8359

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.5400e-003	2.6400e-003	0.0272	8.0000e-005	7.7300e-003	5.0000e-005	7.7800e-003	2.0600e-003	5.0000e-005	2.1000e-003	0.0000	6.8453	6.8453	1.9000e-004	0.0000	6.8500
Total	0.0484	1.5395	0.3308	4.0100e-003	0.0914	5.9500e-003	0.0973	0.0251	5.6900e-003	0.0308	0.0000	387.2356	387.2356	0.0180	0.0000	387.6859

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	0.1691	1.7773	0.8605	1.4800e-003	0.7046	0.0932	0.7978	0.3873	0.0858	0.4731	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0182	0.0787	0.8139	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	0.0182	0.0787	0.8139	1.4800e-003	0.1585	2.4200e-003	0.1610	0.0871	2.4200e-003	0.0896	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118

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	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320
Total	2.5500e-003	1.9000e-003	0.0196	5.0000e-005	5.5700e-003	4.0000e-005	5.6000e-003	1.4800e-003	3.0000e-005	1.5100e-003	0.0000	4.9286	4.9286	1.3000e-004	0.0000	4.9320

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Category	tons/yr										MT/yr					
Fugitive Dust					0.5196	0.0000	0.5196	0.1318	0.0000	0.1318	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1256	1.4448	0.8845	1.6400e-003		0.0631	0.0631		0.0581	0.0581	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760
Total	0.1256	1.4448	0.8845	1.6400e-003	0.5196	0.0631	0.5827	0.1318	0.0581	0.1898	0.0000	147.6085	147.6085	0.0467	0.0000	148.7760

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	0.3474	11.9001	2.3505	0.0305	1.8289	0.0457	1.8746	0.4680	0.0437	0.5117	0.0000	2,945.4933	2,945.4933	0.1380	0.0000	2,948.9439
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	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	0.3493	11.9015	2.3654	0.0305	1.8331	0.0457	1.8788	0.4692	0.0437	0.5129	0.0000	2,949.2144	2,949.2144	0.1381	0.0000	2,952.6674

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					0.1169	0.0000	0.1169	0.0296	0.0000	0.0296	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.0875	0.8745	1.6400e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759

Total	0.0202	0.0875	0.8745	1.6400e-003	0.1169	2.6900e-003	0.1196	0.0296	2.6900e-003	0.0323	0.0000	147.6083	147.6083	0.0467	0.0000	148.7759
-------	--------	--------	--------	-------------	--------	-------------	--------	--------	-------------	--------	--------	----------	----------	--------	--------	----------

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	0.3474	11.9001	2.3505	0.0305	1.8289	0.0457	1.8746	0.4680	0.0437	0.5117	0.0000	2,945.4933	2,945.4933	0.1380	0.0000	2,948.9439
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	1.9300e-003	1.4300e-003	0.0148	4.0000e-005	4.2000e-003	3.0000e-005	4.2300e-003	1.1200e-003	3.0000e-005	1.1400e-003	0.0000	3.7210	3.7210	1.0000e-004	0.0000	3.7236
Total	0.3493	11.9015	2.3654	0.0305	1.8331	0.0457	1.8788	0.4692	0.0437	0.5129	0.0000	2,949.2144	2,949.2144	0.1381	0.0000	2,952.6674

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7484	0.0000	0.7484	0.2575	0.0000	0.2575	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	0.2870	3.2377	2.0613	4.0000e-003	0.7484	0.1402	0.8887	0.2575	0.1290	0.3865	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651

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	0.7731	26.9955	5.5285	0.0733	2.0622	0.0877	2.1499	0.5527	0.0839	0.6366	0.0000	7,095.3843	7,095.3843	0.3246	0.0000	7,103.4987
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	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	0.7773	26.9986	5.5608	0.0734	2.0724	0.0878	2.1602	0.5554	0.0840	0.6394	0.0000	7,104.1582	7,104.1582	0.3248	0.0000	7,112.2780

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					0.1684	0.0000	0.1684	0.0580	0.0000	0.0580	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.2129	2.1284	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	0.0491	0.2129	2.1284	4.0000e-003	0.1684	6.5500e-003	0.1750	0.0580	6.5500e-003	0.0645	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647

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	0.7731	26.9955	5.5285	0.0733	2.0622	0.0877	2.1499	0.5527	0.0839	0.6366	0.0000	7,095.3843	7,095.3843	0.3246	0.0000	7,103.4987
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	4.2800e-003	3.0800e-003	0.0323	1.0000e-004	0.0102	7.0000e-005	0.0103	2.7200e-003	6.0000e-005	2.7800e-003	0.0000	8.7739	8.7739	2.2000e-004	0.0000	8.7793
Total	0.7773	26.9986	5.5608	0.0734	2.0724	0.0878	2.1602	0.5554	0.0840	0.6394	0.0000	7,104.1582	7,104.1582	0.3248	0.0000	7,112.2780

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

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	0.4746	13.6370	3.6320	0.0327	0.7879	0.0675	0.8554	0.2278	0.0646	0.2924	0.0000	3,131.2087	3,131.2087	0.1436	0.0000	3,134.7986
Worker	1.2922	0.9285	9.7359	0.0293	3.0854	0.0199	3.1054	0.8206	0.0184	0.8389	0.0000	2,645.9516	2,645.9516	0.0649	0.0000	2,647.5741
Total	1.7669	14.5656	13.3679	0.0619	3.8733	0.0875	3.9608	1.0484	0.0830	1.1313	0.0000	5,777.1602	5,777.1602	0.2085	0.0000	5,782.3726

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	0.0104	0.0450	0.6406	1.7900e-003		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	74.4209	74.4209	0.0241	0.0000	75.0226
Total	0.0104	0.0450	0.6406	1.7900e-003		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	74.4209	74.4209	0.0241	0.0000	75.0226

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	0.4746	13.6370	3.6320	0.0327	0.7879	0.0675	0.8554	0.2278	0.0646	0.2924	0.0000	3,131.2087	3,131.2087	0.1436	0.0000	3,134.7986
Worker	1.2922	0.9285	9.7359	0.0293	3.0854	0.0199	3.1054	0.8206	0.0184	0.8389	0.0000	2,645.9516	2,645.9516	0.0649	0.0000	2,647.5741
Total	1.7669	14.5656	13.3679	0.0619	3.8733	0.0875	3.9608	1.0484	0.0830	1.1313	0.0000	5,777.1602	5,777.1602	0.2085	0.0000	5,782.3726

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

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	0.7665	24.1516	6.4291	0.0635	1.5462	0.0536	1.5998	0.4470	0.0512	0.4983	0.0000	6,087.9807	6,087.9807	0.2653	0.0000	6,094.6135
Worker	2.3518	1.6284	17.4638	0.0554	6.0548	0.0381	6.0929	1.6103	0.0351	1.6454	0.0000	5,012.2044	5,012.2044	0.1140	0.0000	5,015.0541
Total	3.1183	25.7801	23.8929	0.1189	7.6011	0.0917	7.6927	2.0574	0.0863	2.1437	0.0000	11,100.1851	11,100.1851	0.3793	0.0000	11,109.6676

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	0.0204	0.0883	1.2571	3.5100e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.0848	146.0848	0.0473	0.0000	147.2660

Total	0.0204	0.0883	1.2571	3.5100e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.0848	146.0848	0.0473	0.0000	147.2660
-------	--------	--------	--------	-------------	--	-------------	-------------	--	-------------	-------------	--------	----------	----------	--------	--------	----------

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	0.7665	24.1516	6.4291	0.0635	1.5462	0.0536	1.5998	0.4470	0.0512	0.4983	0.0000	6,087.9807	6,087.9807	0.2653	0.0000	6,094.6135
Worker	2.3518	1.6284	17.4638	0.0554	6.0548	0.0381	6.0929	1.6103	0.0351	1.6454	0.0000	5,012.2044	5,012.2044	0.1140	0.0000	5,015.0541
Total	3.1183	25.7801	23.8929	0.1189	7.6011	0.0917	7.6927	2.0574	0.0863	2.1437	0.0000	11,100.1851	11,100.1851	0.3793	0.0000	11,109.6676

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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	0.7125	22.7428	6.0319	0.0626	1.5404	0.0464	1.5868	0.4454	0.0443	0.4897	0.0000	6,006.6348	6,006.6348	0.2524	0.0000	6,012.9437
Worker	2.1866	1.4553	15.9900	0.0532	6.0316	0.0371	6.0688	1.6041	0.0342	1.6383	0.0000	4,811.6359	4,811.6359	0.1018	0.0000	4,814.1819
Total	2.8990	24.1980	22.0218	0.1158	7.5720	0.0835	7.6555	2.0495	0.0785	2.1280	0.0000	10,818.2707	10,818.2707	0.3542	0.0000	10,827.1256

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	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.6300	145.6300	0.0471	0.0000	146.8075
Total	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.6300	145.6300	0.0471	0.0000	146.8075

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	0.7125	22.7428	6.0319	0.0626	1.5404	0.0464	1.5868	0.4454	0.0443	0.4897	0.0000	6,006.6348	6,006.6348	0.2524	0.0000	6,012.9437
Worker	2.1866	1.4553	15.9900	0.0532	6.0316	0.0371	6.0688	1.6041	0.0342	1.6383	0.0000	4,811.6359	4,811.6359	0.1018	0.0000	4,814.1819
Total	2.8990	24.1980	22.0218	0.1158	7.5720	0.0835	7.6555	2.0495	0.0785	2.1280	0.0000	10,818.2707	10,818.2707	0.3542	0.0000	10,827.1256

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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	0.5369	17.2359	5.4178	0.0608	1.5405	0.0201	1.5606	0.4454	0.0192	0.4646	0.0000	5,835.8589	5,835.8589	0.2149	0.0000	5,841.2302
Worker	2.0474	1.3088	14.7118	0.0512	6.0316	0.0364	6.0680	1.6041	0.0335	1.6376	0.0000	4,628.8642	4,628.8642	0.0913	0.0000	4,631.1464
Total	2.5843	18.5447	20.1295	0.1119	7.5721	0.0565	7.6287	2.0495	0.0527	2.1023	0.0000	10,464.7230	10,464.7230	0.3061	0.0000	10,472.3766

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	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.7345	145.7345	0.0471	0.0000	146.9129
Total	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.7345	145.7345	0.0471	0.0000	146.9129

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	0.5369	17.2359	5.4178	0.0608	1.5405	0.0201	1.5606	0.4454	0.0192	0.4646	0.0000	5,835.8589	5,835.8589	0.2149	0.0000	5,841.2302
Worker	2.0474	1.3088	14.7118	0.0512	6.0316	0.0364	6.0680	1.6041	0.0335	1.6376	0.0000	4,628.8642	4,628.8642	0.0913	0.0000	4,631.1464
Total	2.5843	18.5447	20.1295	0.1119	7.5721	0.0565	7.6287	2.0495	0.0527	2.1023	0.0000	10,464.7230	10,464.7230	0.3061	0.0000	10,472.3766

3.5 Building Construction - 2024

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

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	0.5237	17.1492	5.2715	0.0608	1.5525	0.0200	1.5724	0.4489	0.0191	0.4680	0.0000	5,841.4269	5,841.4269	0.2121	0.0000	5,846.7289
Worker	1.9420	1.1921	13.7467	0.0495	6.0780	0.0360	6.1141	1.6165	0.0332	1.6496	0.0000	4,481.2538	4,481.2538	0.0829	0.0000	4,483.3263
Total	2.4657	18.3413	19.0182	0.1103	7.6305	0.0560	7.6865	2.0653	0.0522	2.1176	0.0000	10,322.6807	10,322.6807	0.2950	0.0000	10,330.0551

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	0.0205	0.0887	1.2619	3.5300e-003		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	146.9149	146.9149	0.0475	0.0000	148.1028

Total	0.0205	0.0887	1.2619	3.5300e-003		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	146.9149	146.9149	0.0475	0.0000	148.1028
-------	--------	--------	--------	-------------	--	-------------	-------------	--	-------------	-------------	--------	----------	----------	--------	--------	----------

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.5237	17.1492	5.2715	0.0608	1.5525	0.0200	1.5724	0.4489	0.0191	0.4680	0.0000	5,841.4269	5,841.4269	0.2121	0.0000	5,846.7289
Worker	1.9420	1.1921	13.7467	0.0495	6.0780	0.0360	6.1141	1.6165	0.0332	1.6496	0.0000	4,481.2538	4,481.2538	0.0829	0.0000	4,483.3263
Total	2.4657	18.3413	19.0182	0.1103	7.6305	0.0560	7.6865	2.0653	0.0522	2.1176	0.0000	10,322.6807	10,322.6807	0.2950	0.0000	10,330.0551

3.5 Building Construction - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

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	0.5073	16.8561	5.1121	0.0601	1.5466	0.0196	1.5662	0.4472	0.0187	0.4659	0.0000	5,781.3796	5,781.3796	0.2071	0.0000	5,786.5575
Worker	1.8300	1.0794	12.6893	0.0473	6.0548	0.0354	6.0902	1.6103	0.0326	1.6429	0.0000	4,283.6124	4,283.6124	0.0748	0.0000	4,285.4812
Total	2.3372	17.9355	17.8014	0.1075	7.6014	0.0550	7.6564	2.0575	0.0513	2.1088	0.0000	10,064.9920	10,064.9920	0.2819	0.0000	10,072.0386

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	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281
Total	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281

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	0.5073	16.8561	5.1121	0.0601	1.5466	0.0196	1.5662	0.4472	0.0187	0.4659	0.0000	5,781.3796	5,781.3796	0.2071	0.0000	5,786.5575
Worker	1.8300	1.0794	12.6893	0.0473	6.0548	0.0354	6.0902	1.6103	0.0326	1.6429	0.0000	4,283.6124	4,283.6124	0.0748	0.0000	4,285.4812
Total	2.3372	17.9355	17.8014	0.1075	7.6014	0.0550	7.6564	2.0575	0.0513	2.1088	0.0000	10,064.9920	10,064.9920	0.2819	0.0000	10,072.0386

3.5 Building Construction - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

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	0.4952	16.6328	5.0125	0.0598	1.5467	0.0192	1.5659	0.4472	0.0184	0.4656	0.0000	5,747.0707	5,747.0707	0.2034	0.0000	5,752.1568
Worker	1.7412	0.9890	11.8409	0.0456	6.0548	0.0344	6.0892	1.6103	0.0317	1.6420	0.0000	4,125.0612	4,125.0612	0.0681	0.0000	4,126.7647
Total	2.2364	17.6219	16.8534	0.1053	7.6015	0.0537	7.6552	2.0575	0.0500	2.1076	0.0000	9,872.1319	9,872.1319	0.2716	0.0000	9,878.9214

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	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281
Total	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281

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	0.4952	16.6328	5.0125	0.0598	1.5467	0.0192	1.5659	0.4472	0.0184	0.4656	0.0000	5,747.0707	5,747.0707	0.2034	0.0000	5,752.1568
Worker	1.7412	0.9890	11.8409	0.0456	6.0548	0.0344	6.0892	1.6103	0.0317	1.6420	0.0000	4,125.0612	4,125.0612	0.0681	0.0000	4,126.7647
Total	2.2364	17.6219	16.8534	0.1053	7.6015	0.0537	7.6552	2.0575	0.0500	2.1076	0.0000	9,872.1319	9,872.1319	0.2716	0.0000	9,878.9214

3.5 Building Construction - 2027

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	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358

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	0.4680	15.8398	4.7600	0.0574	1.4934	0.0182	1.5117	0.4318	0.0174	0.4492	0.0000	5,517.8739	5,517.8739	0.1930	0.0000	5,522.6996
Worker	1.5984	0.8771	10.7026	0.0425	5.8461	0.0316	5.8776	1.5548	0.0291	1.5838	0.0000	3,846.9551	3,846.9551	0.0601	0.0000	3,848.4572
Total	2.0663	16.7169	15.4625	0.0999	7.3395	0.0498	7.3893	1.9866	0.0465	2.0331	0.0000	9,364.8290	9,364.8290	0.2531	0.0000	9,371.1567

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	0.0197	0.0853	1.2137	3.4000e-003		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	141.3942	141.3942	0.0457	0.0000	142.5375

Total	0.0197	0.0853	1.2137	3.4000e-003		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	141.3942	141.3942	0.0457	0.0000	142.5375
-------	--------	--------	--------	-------------	--	-------------	-------------	--	-------------	-------------	--------	----------	----------	--------	--------	----------

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	0.4680	15.8398	4.7600	0.0574	1.4934	0.0182	1.5117	0.4318	0.0174	0.4492	0.0000	5,517.8739	5,517.8739	0.1930	0.0000	5,522.6996
Worker	1.5984	0.8771	10.7026	0.0425	5.8461	0.0316	5.8776	1.5548	0.0291	1.5838	0.0000	3,846.9551	3,846.9551	0.0601	0.0000	3,848.4572
Total	2.0663	16.7169	15.4625	0.0999	7.3395	0.0498	7.3893	1.9866	0.0465	2.0331	0.0000	9,364.8290	9,364.8290	0.2531	0.0000	9,371.1567

3.6 Paving - 2027

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	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

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	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524

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	1.2600e-003	5.4700e-003	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2600e-003	5.4700e-003	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

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	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524
Total	1.5000e-004	8.0000e-005	9.8000e-004	0.0000	5.4000e-004	0.0000	5.4000e-004	1.4000e-004	0.0000	1.5000e-004	0.0000	0.3523	0.3523	1.0000e-005	0.0000	0.3524

3.6 Paving - 2028

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	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905

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	0.0170	0.0735	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0170	0.0735	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956

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	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905
Total	1.8600e-003	1.0000e-003	0.0124	5.0000e-005	7.2000e-003	4.0000e-005	7.2300e-003	1.9100e-003	3.0000e-005	1.9500e-003	0.0000	4.5888	4.5888	7.0000e-005	0.0000	4.5905

3.7 Architectural Coating - 2028

Unmitigated Construction On-Site

Off-Road	0.0000	0.0000	0.0000	1.9000e-004		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	37.6842	0.0000	0.0000	1.9000e-004		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.1560	0.0834	1.0381	4.2500e-003	0.6032	3.0300e-003	0.6062	0.1604	2.7900e-003	0.1632	0.0000	384.5515	384.5515	5.6900e-003	0.0000	384.6938
Total	0.1560	0.0834	1.0381	4.2500e-003	0.6032	3.0300e-003	0.6062	0.1604	2.7900e-003	0.1632	0.0000	384.5515	384.5515	5.6900e-003	0.0000	384.6938

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	7.0826	29.7435	78.4433	0.3249	36.5946	0.2294	36.8240	9.7934	0.2132	10.0067	0.0000	29,889.2950	29,889.2950	0.8826	0.0000	29,911.3591
Unmitigated	7.0826	29.7435	78.4433	0.3249	36.5946	0.2294	36.8240	9.7934	0.2132	10.0067	0.0000	29,889.2950	29,889.2950	0.8826	0.0000	29,911.3591

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	14,137.50	13,585.00	12447.50	31,912,174	31,912,174
City Park	574.56	6,916.00	5092.00	4,538,331	4,538,331
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	14,820.00	3,300.00	1410.00	26,905,203	26,905,203
Government (Civic Center)	904.00	0.00	0.00	1,234,371	1,234,371
Hotel	2,267.91	2,274.69	1650.93	4,143,252	4,143,252
Junior College (2Yr)	345.60	141.15	15.15	683,607	683,607
Regional Shopping Center	16,266.00	19,038.00	9612.00	27,546,924	27,546,924
User Defined Parking	808.00	808.00	808.00	1,470,560	1,470,560
Total	50,123.57	46,062.84	31,035.58	98,434,422	98,434,422

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Government (Civic Center)	9.50	7.30	7.30	75.00	20.00	5.00	50	34	16
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	54	35	11
User Defined Parking	5.00	5.00	5.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Apartments Mid Rise	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
City Park	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Enclosed Parking with Elevator	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
General Office Building	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

Government (Civic Center)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Hotel	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Junior College (2Yr)	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
Regional Shopping Center	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656
User Defined Parking	0.621001	0.034238	0.180324	0.101476	0.012045	0.005050	0.013047	0.022691	0.002214	0.001475	0.005139	0.000645	0.000656

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.4155	3.6942	2.5669	0.0227		0.2870	0.2870		0.2870	0.2870	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157
NaturalGas Unmitigated	0.4155	3.6942	2.5669	0.0227		0.2870	0.2870		0.2870	0.2870	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
--	----------------	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	-----------	-----------	-----	-----	------

Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.80782e+007	0.1514	1.2938	0.5506	8.2600e-003		0.1046	0.1046		0.1046	0.1046	0.0000	1,498.3604	1,498.3604	0.0287	0.0275	1,507.2644
City Park	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.4555e+007	0.1324	1.2037	1.0111	7.2200e-003		0.0915	0.0915		0.0915	0.0915	0.0000	1,310.3483	1,310.3483	0.0251	0.0240	1,318.1351
Government (Civic Center)	818500	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6783	43.6783	8.4000e-004	8.0000e-004	43.9378
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144
Junior College (2Yr)	361950	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3150	19.3150	3.7000e-004	3.5000e-004	19.4298
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.4154	3.6942	2.5669	0.0227		0.2871	0.2871		0.2871	0.2871	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.80782e+007	0.1514	1.2938	0.5506	8.2600e-003		0.1046	0.1046		0.1046	0.1046	0.0000	1,498.3604	1,498.3604	0.0287	0.0275	1,507.2644
City Park	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
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.4555e+007	0.1324	1.2037	1.0111	7.2200e-003		0.0915	0.0915		0.0915	0.0915	0.0000	1,310.3483	1,310.3483	0.0251	0.0240	1,318.1351
Government (Civic Center)	818500	4.4100e-003	0.0401	0.0337	2.4000e-004		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	43.6783	43.6783	8.4000e-004	8.0000e-004	43.9378
Hotel	2.18106e+007	0.1176	1.0692	0.8981	6.4100e-003		0.0813	0.0813		0.0813	0.0813	0.0000	1,163.8979	1,163.8979	0.0223	0.0213	1,170.8144

Junior College (2Yr)	361950	1.9500e-003	0.0177	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3150	19.3150	3.7000e-004	3.5000e-004	19.4298
Regional Shopping Center	1.422e+006	7.6700e-003	0.0697	0.0586	4.2000e-004		5.3000e-003	5.3000e-003		5.3000e-003	5.3000e-003	0.0000	75.8833	75.8833	1.4500e-003	1.3900e-003	76.3343
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.4154	3.6942	2.5669	0.0227		0.2871	0.2871		0.2871	0.2871	0.0000	4,111.4832	4,111.4832	0.0788	0.0754	4,135.9157

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.34171e+007	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	2.6745e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	891500	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	118650	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.30721e+007	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	2.67005e+007	0.0000	0.0000	0.0000	0.0000
General Office Building	2.6745e+007	0.0000	0.0000	0.0000	0.0000
Government (Civic Center)	891500	0.0000	0.0000	0.0000	0.0000
Hotel	3.75078e+006	0.0000	0.0000	0.0000	0.0000
Junior College (2Yr)	118650	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	6.414e+006	0.0000	0.0000	0.0000	0.0000
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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
- No Hearths Installed

	ROG	NOx	CO	SO2	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	27.8848	0.2789	24.2365	1.2800e-003		0.1342	0.1342		0.1342	0.1342	0.0000	39.6676	39.6676	0.0384	0.0000	40.6275
Unmitigated	27.8976	0.3878	24.2828	1.9800e-003		0.1430	0.1430		0.1430	0.1430	0.0000	165.8801	165.8801	0.0408	2.3100e-003	167.5900

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	3.7684					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	23.3808					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0128	0.1090	0.0464	7.0000e-004		8.8100e-003	8.8100e-003		8.8100e-003	8.8100e-003	0.0000	126.2125	126.2125	2.4200e-003	2.3100e-003	126.9625
Landscaping	0.7356	0.2789	24.2365	1.2800e-003		0.1342	0.1342		0.1342	0.1342	0.0000	39.6676	39.6676	0.0384	0.0000	40.6275
Total	27.8976	0.3878	24.2828	1.9800e-003		0.1430	0.1430		0.1430	0.1430	0.0000	165.8801	165.8801	0.0408	2.3100e-003	167.5900

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	3.7684					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	23.3808					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.7356	0.2789	24.2365	1.2800e-003		0.1342	0.1342		0.1342	0.1342	0.0000	39.6676	39.6676	0.0384	0.0000	40.6275
Total	27.8848	0.2789	24.2365	1.2800e-003		0.1342	0.1342		0.1342	0.1342	0.0000	39.6676	39.6676	0.0384	0.0000	40.6275

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	137.5772	14.1305	0.3337	590.2679
Unmitigated	171.9715	17.6631	0.4171	737.8348

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	211.751 / 133.495	67.1787	6.8999	0.1629	288.2267
City Park	0 / 45.2763	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	266.601 / 163.4	84.5801	8.6872	0.2051	362.8864
Government (Civic Center)	9.93298 / 6.08796	3.1513	0.3237	7.6400e-003	13.5204
Hotel	8.59934 / 0.955482	2.7282	0.2802	6.6200e-003	11.7051
Junior College (2Yr)	0.735735 / 1.15077	0.2334	0.0240	5.7000e-004	1.0015
Regional Shopping Center	44.4435 / 27.2396	14.0999	1.4482	0.0342	60.4948
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		171.9715	17.6631	0.4171	737.8348

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	169.4 / 125.352	53.7430	5.5199	0.1303	230.5814
City Park	0 / 42.5144	0.0000	0.0000	0.0000	0.0000

Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	213.28 / 153.433	67.6641	6.9498	0.1641	290.3092
Government (Civic Center)	7.94639 / 5.71659	2.5210	0.2589	6.1100e-003	10.8163
Hotel	6.87947 / 0.897197	2.1825	0.2242	5.2900e-003	9.3641
Junior College (2Yr)	0.588588 / 1.08057	0.1867	0.0192	4.5000e-004	0.8012
Regional Shopping Center	35.5548 / 25.578	11.2799	1.1586	0.0274	48.3958
User Defined Parking	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		137.5772	14.1305	0.3337	590.2679

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	814.6778	48.1461	0.0000	2,018.3299
Unmitigated	814.6778	48.1461	0.0000	2,018.3299

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1495	303.4715	17.9347	0.0000	751.8378
City Park	3.27	0.6638	0.0392	0.0000	1.6445
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1395	283.1724	16.7350	0.0000	701.5476
Government (Civic Center)	285	57.8524	3.4190	0.0000	143.3269
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Junior College (2Yr)	19.5	3.9583	0.2339	0.0000	9.8066
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		814.6778	48.1461	0.0000	2,018.3299

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	1495	303.4715	17.9347	0.0000	751.8378
City Park	3.27	0.6638	0.0392	0.0000	1.6445
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	1395	283.1724	16.7350	0.0000	701.5476

Government (Civic Center)	285	57.8524	3.4190	0.0000	143.3269
Hotel	185.6	37.6751	2.2265	0.0000	93.3385
Junior College (2Yr)	19.5	3.9583	0.2339	0.0000	9.8066
Regional Shopping Center	630	127.8843	7.5578	0.0000	316.8280
User Defined Parking	0	0.0000	0.0000	0.0000	0.0000
Total		814.6778	48.1461	0.0000	2,018.3299

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

**Proposed Project - Housing
Rich**

CalEEMod trips:	50,124.00	46,063.00	31,036.00	98,434,422	vmt
	76%	14%	9%	75,276,792	vmt/weekday
CalEEMod VMT	75,276,791.52	13,835,587.14	9,322,043.34		
CalEEMod VMT/day	288,733	265,340	178,779		
TIA VMT and adjustments	401,316	368,802	248,489		
Adjustment	1.39	1.39	1.39		
Days/year	261	52	52		

Attachment 2: Construction Health Risk Analysis

Vallco Specific Plan, Cupertino, CA

DPM Emissions and Modeling Emission Rates - Without Mitigation

Housing Rich Alternative

Construction Year	Activity	Modeled DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2019	Construction	0.2789	DPM_19	557.8	0.16980	2.14E-02	251,770	8.50E-08
2020	Construction	0.2404	DPM_20	480.8	0.14636	1.84E-02	251,770	7.32E-08
2021	Construction	0.1453	DPM_21	290.6	0.08846	1.11E-02	251,770	4.43E-08
2022	Construction	0.1234	DPM_22	246.8	0.07513	9.47E-03	251,770	3.76E-08
2023	Construction	0.1033	DPM_23	206.6	0.06289	7.92E-03	251,770	3.15E-08
2024	Construction	0.0924	DPM_24	184.8	0.05626	7.09E-03	251,770	2.82E-08
2025	Construction	0.0806	DPM_25	161.2	0.04907	6.18E-03	251,770	2.46E-08
2026	Construction	0.0803	DPM_26	160.6	0.04889	6.16E-03	251,770	2.45E-08
2027	Construction	0.0790	DPM_27	158.0	0.04810	6.06E-03	251,770	2.41E-08
2028	Construction	0.0293	DPM_28	58.6	0.01784	2.25E-03	251,770	8.93E-09
Total		1.253		2505.8				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

PM2.5 Fugitive Dust Emissions for Modeling - Without Mitigation

Housing Rich Alternative

Construction Year	Activity	Modeled Area Source	PM2.5 Emissions (ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate g/s/m ²
				(lb/yr)	(lb/hr)	(g/s)		
2019	Construction	FUG_19	0.7061	1412.2	0.42989	5.42E-02	251,770	2.15E-07
2020	Construction	FUG_20	0.3957	791.4	0.24091	3.04E-02	251,770	1.21E-07
2021	Construction	FUG_21	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2022	Construction	FUG_22	0.2143	428.6	0.13047	1.64E-02	251,770	6.53E-08
2023	Construction	FUG_23	0.2143	428.6	0.13047	1.64E-02	251,770	6.53E-08
2024	Construction	FUG_24	0.2160	432.0	0.13151	1.66E-02	251,770	6.58E-08
2025	Construction	FUG_25	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2026	Construction	FUG_26	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2027	Construction	FUG_27	0.2078	415.6	0.12651	1.59E-02	251,770	6.33E-08
2028	Construction	FUG_28	0.0153	30.6	0.00932	1.17E-03	251,770	4.66E-09
Total			2.615	5230.2				

Operation Hours

hr/day =	9	(7am - 4pm)
days/yr =	365	
hours/year =	3285	

DPM Emissions and Modeling Emission Rates - With Mitigation
Housing Rich Alternative

Construction Year	Activity	Modeled DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m ²)	DPM Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2019	Construction	0.0150	DPM_19	30.0	0.00913	1.15E-03	251,770	4.57E-09
2020	Construction	0.0339	DPM_20	67.8	0.02064	2.60E-03	251,770	1.03E-08
2021	Construction	0.0229	DPM_21	45.8	0.01394	1.76E-03	251,770	6.98E-09
2022	Construction	0.0209	DPM_22	41.8	0.01272	1.60E-03	251,770	6.37E-09
2023	Construction	0.0150	DPM_23	30.0	0.00913	1.15E-03	251,770	4.57E-09
2024	Construction	0.0148	DPM_24	29.6	0.00901	1.14E-03	251,770	4.51E-09
2025	Construction	0.0145	DPM_25	29.0	0.00883	1.11E-03	251,770	4.42E-09
2026	Construction	0.0141	DPM_26	28.2	0.00858	1.08E-03	251,770	4.30E-09
2027	Construction	0.0134	DPM_27	26.8	0.00816	1.03E-03	251,770	4.08E-09
2028	Construction	0.0029	DPM_28	5.8	0.00177	2.22E-04	251,770	8.84E-10
Total		0.17		334.8				

Operation Hours

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

PM2.5 Fugitive Dust Emissions for Modeling - With Mitigation
Housing Rich Alternative

Construction Year	Activity	Modeled Area Source	(ton/year)	PM2.5 Emissions			Modeled Area (m ²)	PM2.5 Emission Rate (g/s/m ²)
				(lb/yr)	(lb/hr)	(g/s)		
2019	Construction	FUG_19	0.1785	357.0	0.10868	1.37E-02	251,770	5.44E-08
2020	Construction	FUG_20	0.1962	392.4	0.11945	1.51E-02	251,770	5.98E-08
2021	Construction	FUG_21	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2022	Construction	FUG_22	0.2143	428.6	0.13047	1.64E-02	251,770	6.53E-08
2023	Construction	FUG_23	0.2143	428.6	0.13047	1.64E-02	251,770	6.53E-08
2024	Construction	FUG_24	0.2160	432.0	0.13151	1.66E-02	251,770	6.58E-08
2025	Construction	FUG_25	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2026	Construction	FUG_26	0.2152	430.4	0.13102	1.65E-02	251,770	6.56E-08
2027	Construction	FUG_27	0.2078	415.6	0.12651	1.59E-02	251,770	6.33E-08
2028	Construction	FUG_28	0.0153	30.6	0.00932	1.17E-03	251,770	4.66E-09
Total			1.89	3776.0				

Operation Hours

hr/day = 9 (7am - 4pm)
days/yr = 365
hours/year = 3285

Vallco Specific Plan, Cupertino, CA Construction
Health impacts Summary - Unmitigated Emissions Scenarios

Housing Rich Alternative

Maximum Impacts at Construction MEI Location - Unmitigated

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m³)
	Exhaust PM10/DPM (µg/m³)	Fugitive PM2.5 (µg/m³)				
	Child	Adult				
2019	0.0686	0.1830	12.19	0.20	0.014	0.25
2020	0.0590	0.1030	9.70	0.17	0.012	0.16
2021	0.0357	0.0558	1.02	0.10	0.007	0.09
2022	0.0303	0.0556	0.87	0.09	0.006	0.09
2023	0.0254	0.0556	0.72	0.07	0.005	0.08
2024	0.0228	0.0560	0.65	0.07	0.005	0.08
2025	0.0198	0.0558	0.57	0.06	0.004	0.08
2026	0.0198	0.0558	0.56	0.06	0.004	0.08
2027	0.0194	0.0539	0.55	0.06	0.004	0.07
2028	0.0072	0.0040	0.21	0.02	0.001	0.01
Total			27.0	0.9		
Maximum	0.0686	0.1830	-	-	0.01	0.25

Vallco Specific Plan, Cupertino, CA Construction
Health impacts Summary - Mitigated Emissions Scenarios

Housing Rich Alternative

Maximum Impacts at Construction MEI Location - Mitigated

Emissions Year						
	Maximum Concentrations		Cancer Risk (per million)		Hazard Index	Maximum
	Exhaust PM10/DPM (µg/m ³)	Fugitive PM2.5 (µg/m ³)				Annual PM2.5 Concentration (µg/m ³)
			Child	Adult	(-)	
2019	0.0037	0.0463	0.66	0.01	0.001	0.050
2020	0.0083	0.0509	1.36	0.02	0.002	0.059
2021	0.0056	0.0558	0.16	0.02	0.001	0.061
2022	0.0051	0.0556	0.15	0.01	0.001	0.061
2023	0.0037	0.0556	0.11	0.01	0.001	0.059
2024	0.0036	0.0560	0.10	0.01	0.001	0.060
2025	0.0036	0.0558	0.10	0.01	0.001	0.059
2026	0.0035	0.0558	0.10	0.01	0.001	0.059
2027	0.0033	0.0539	0.09	0.01	0.001	0.057
2028	0.0007	0.0040	0.02	0.00	0.000	0.005
Total			2.9	0.1		
Maximum	0.0083	0.0560	-	-	0.002	0.06

Vallco Specific Plan, Cupertino, CA Construction
Housing Rich Alternative
Maximum DPM Cancer Risk Calculations From Construction - Unmitigated
Impacts at Off-Site Receptors-5.8 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹
 ASF = Age sensitivity factor for specified age group
 ED = Exposure duration (years)
 AT = Averaging time for lifetime cancer risk (years)
 FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Age --> Parameter	Infant/Child				Adult
	3rd Trimester	0 - 2	2 - 9	2 - 16	16 - 30
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
			DPM Conc (ug/m3)		Sensitivity Factor		Modeled		Sensitivity Factor			
			Year	Annual			DPM Conc (ug/m3)					
							Year	Annual				
0	0.25	-0.25 - 0*	2019	0.0686	10	0.93	2019	0.0686	-	-		
1	1	0 - 1	2019	0.0686	10	11.26	2019	0.0686	1	0.20	0.183	0.252
2	1	1 - 2	2020	0.0590	10	9.70	2020	0.0590	1	0.17	0.1030	0.162
3	1	2 - 3	2021	0.0357	3	1.02	2021	0.0357	1	0.10	0.0558	0.092
4	1	3 - 4	2022	0.0303	3	0.87	2022	0.0303	1	0.09	0.0556	0.086
5	1	4 - 5	2023	0.0254	3	0.72	2023	0.0254	1	0.07	0.0556	0.081
6	1	5 - 6	2024	0.0228	3	0.65	2024	0.0228	1	0.07	0.0560	0.079
7	1	6 - 7	2025	0.0198	3	0.57	2025	0.0198	1	0.06	0.0558	0.076
8	1	7 - 8	2026	0.0198	3	0.56	2026	0.0198	1	0.06	0.0558	0.076
9	1	8 - 9	2027	0.0194	3	0.55	2027	0.0194	1	0.06	0.0539	0.073
10	1	9 - 10	2028	0.0072	3	0.21	2028	0.0072	1	0.02	0.0040	0.011
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						27.0				0.9		

* Third trimester of pregnancy

Vallco Specific Plan, Cupertino, CA Construction
Housing Rich Alternative
Maximum DPM Cancer Risk Calculations From Construction - Mitigated
Impacts at Off-Site Receptors-5.8 meters

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)⁻¹
 ASF = Age sensitivity factor for specified age group
 ED = Exposure duration (years)
 AT = Averaging time for lifetime cancer risk (years)
 FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C_{air} x DBR x A x (EF/365) x 10⁻⁶

Where: C_{air} = concentration in air (µg/m³)
 DBR = daily breathing rate (L/kg body weight-day)
 A = Inhalation absorption factor
 EF = Exposure frequency (days/year)
 10⁻⁶ = Conversion factor

Values

Age --> Parameter	Infant/Child				Adult
	3rd Trimester	0 - 2	2 - 9	2 - 16	16 - 30
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	1.00	1.00	1.00	1.00	0.73

* 95th percentile breathing rates for infants and 80th percentile for children and adults

Construction Cancer Risk by Year - Maximum Impact Receptor Location

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Adult Cancer Risk (per million)	Fugitive PM2.5	Total PM2.5
			DPM Conc (ug/m3)		Age Sensitivity Factor		Modeled		Age Sensitivity Factor			
			Year	Annual			DPM Conc (ug/m3)					
							Year	Annual				
0	0.25	-0.25 - 0*	2019	0.0037	10	0.05	2019	0.0037	-	-		
1	1	0 - 1	2019	0.0037	10	0.61	2019	0.0037	1	0.01	0.046	0.050
2	1	1 - 2	2020	0.0083	10	1.36	2020	0.0083	1	0.02	0.0509	0.059
3	1	2 - 3	2021	0.0056	3	0.16	2021	0.0056	1	0.02	0.0558	0.061
4	1	3 - 4	2022	0.0051	3	0.15	2022	0.0051	1	0.01	0.0556	0.061
5	1	4 - 5	2023	0.0037	3	0.11	2023	0.0037	1	0.01	0.0556	0.059
6	1	5 - 6	2024	0.0036	3	0.10	2024	0.0036	1	0.01	0.0560	0.060
7	1	6 - 7	2025	0.0036	3	0.10	2025	0.0036	1	0.01	0.0558	0.059
8	1	7 - 8	2026	0.0035	3	0.10	2026	0.0035	1	0.01	0.0558	0.059
9	1	8 - 9	2027	0.0033	3	0.09	2027	0.0033	1	0.01	0.0539	0.057
10	1	9 - 10	2028	0.0007	3	0.02	2028	0.0007	1	0.00	0.0040	0.005
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
Total Increased Cancer Risk						2.9				0.1		

* Third trimester of pregnancy



Vallco, Cupertino - Housing Rich Project - Santa Clara County, Annual

Vallco, Cupertino - Housing Rich Project
Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,500.00	1000sqft	58.00	1,500,000.00	0
Government (Civic Center)	50.00	1000sqft	0.00	50,000.00	0
	0.00		0.00	0.00	0
Junior College (2Yr)	15.00	1000sqft	0.00	15,000.00	0
Enclosed Parking with Elevator	11,391.00	Space	0.00	4,556,400.00	0
User Defined Parking	1.00	User Defined Unit	0.00	0.00	0
City Park	38.00	Acre	0.00	1,655,280.00	0
Hotel	339.00	Room	0.00	492,228.00	0
Apartments Mid Rise	3,250.00	Dwelling Unit	0.00	3,250,000.00	9295
Regional Shopping Center	600.00	1000sqft	0.00	600,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	58
Climate Zone	4			Operational Year	2029
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project will use Silicon Valley Clean Energy, which is 100% carbon-free

Land Use - 58 acres. Transit hub entered as "user defined parking"

Construction Phase - Default adjusted for 10-year anticipated construction period

Trips and VMT - 1 mile trip length for on- and near-site travel

Demolition - 2,170,350 sf demo

Grading - 2,100,000 cy soil export

Vehicle Trips - Trip rates from project traffic report including MXD reductions. 5mi trip length for transit hub

Woodstoves - No woodstoves or fireplaces, possible gas fireplaces

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 engines and BAAQMD BMPs

Area Mitigation - Low VOC paint, no hearth

Energy Mitigation - energy efficient appliances

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstDustMitigation	WaterExposedAreaPM10PercentReduction	61	55
tblConstDustMitigation	WaterExposedAreaPM25PercentReduction	61	55
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	FuelType	Diesel	Electrical

tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	FuelType	Diesel	Electrical
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	1,110.00	1,950.00
tblConstructionPhase	NumDays	70.00	130.00
tblConstructionPhase	NumDays	110.00	182.00
tblConstructionPhase	NumDays	75.00	130.00
tblConstructionPhase	NumDays	40.00	78.00
tblFireplaces	FireplaceWoodMass	228.80	0.00
tblFireplaces	NumberGas	487.50	1,011.00
tblFireplaces	NumberWood	552.50	0.00
tblGrading	MaterialExported	0.00	2,100,000.00
tblLandUse	LotAcreage	34.44	58.00
tblLandUse	LotAcreage	1.15	0.00
tblLandUse	LotAcreage	0.34	0.00
tblLandUse	LotAcreage	102.52	0.00
tblLandUse	LotAcreage	38.00	0.00
tblLandUse	LotAcreage	11.30	0.00
tblLandUse	LotAcreage	85.53	0.00
tblLandUse	LotAcreage	13.77	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	641.35	0

tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	HaulingTripLength	20.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	VendorTripLength	7.30	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblTripsAndVMT	WorkerTripLength	10.80	1.00
tblVehicleTrips	CC_TL	7.30	5.00
tblVehicleTrips	CNW_TL	7.30	5.00
tblVehicleTrips	CW_TL	9.50	5.00
tblVehicleTrips	ST_TR	6.39	4.18
tblVehicleTrips	ST_TR	22.75	182.00
tblVehicleTrips	ST_TR	2.46	2.20
tblVehicleTrips	ST_TR	8.19	6.71
tblVehicleTrips	ST_TR	11.23	9.41
tblVehicleTrips	ST_TR	49.97	31.73
tblVehicleTrips	ST_TR	0.00	808.00
tblVehicleTrips	SU_TR	5.86	3.83
tblVehicleTrips	SU_TR	16.74	134.00
tblVehicleTrips	SU_TR	1.05	0.94
tblVehicleTrips	SU_TR	5.95	4.87
tblVehicleTrips	SU_TR	1.21	1.01
tblVehicleTrips	SU_TR	25.24	16.02
tblVehicleTrips	SU_TR	0.00	808.00
tblVehicleTrips	WD_TR	6.65	4.35
tblVehicleTrips	WD_TR	1.89	15.12
tblVehicleTrips	WD_TR	11.03	9.88
tblVehicleTrips	WD_TR	27.92	18.08
tblVehicleTrips	WD_TR	8.17	6.69
tblVehicleTrips	WD_TR	27.49	23.04
tblVehicleTrips	WD_TR	42.70	27.11
tblVehicleTrips	WD_TR	0.00	808.00
tblWoodstoves	WoodstoveWoodMass	582.40	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					
2019	0.6305	10.1724	3.9665	0.0115	2.3905	0.2789	2.6694	0.7061	0.2580	0.9641	0.0000	1,066.9007	1,066.9007	0.2169	0.0000	1,072.3224
2020	1.2886	22.3159	9.5306	0.0318	1.2542	0.2404	1.4946	0.3957	0.2235	0.6193	0.0000	2,992.5659	2,992.5659	0.3872	0.0000	3,002.2467
2021	1.4173	17.5584	10.6987	0.0296	0.7846	0.1453	0.9299	0.2152	0.1366	0.3518	0.0000	2,770.8103	2,770.8103	0.2699	0.0000	2,777.5576
2022	1.2937	16.7319	9.9364	0.0291	0.7816	0.1234	0.9050	0.2143	0.1161	0.3304	0.0000	2,722.1431	2,722.1431	0.2552	0.0000	2,728.5238
2023	1.1398	14.3472	9.1641	0.0282	0.7816	0.1033	0.8849	0.2143	0.0971	0.3114	0.0000	2,638.8120	2,638.8120	0.2191	0.0000	2,644.2895
2024	1.0729	14.1909	8.7557	0.0280	0.7877	0.0924	0.8801	0.2160	0.0869	0.3029	0.0000	2,618.1336	2,618.1336	0.2136	0.0000	2,623.4742
2025	1.0019	13.8746	8.3176	0.0274	0.7847	0.0806	0.8653	0.2152	0.0758	0.2909	0.0000	2,569.1028	2,569.1028	0.2062	0.0000	2,574.2566
2026	0.9564	13.7499	7.9980	0.0270	0.7847	0.0803	0.8650	0.2152	0.0754	0.2906	0.0000	2,534.6557	2,534.6557	0.2006	0.0000	2,539.6715
2027	0.8877	13.2034	7.5235	0.0259	0.7577	0.0790	0.8366	0.2078	0.0741	0.2819	0.0000	2,427.0823	2,427.0823	0.1917	0.0000	2,431.8749
2028	37.7968	0.6099	1.2512	2.0900e-003	0.0572	0.0293	0.0865	0.0153	0.0272	0.0425	0.0000	184.3731	184.3731	0.0412	0.0000	185.4025
Maximum	37.7968	22.3159	10.6987	0.0318	2.3905	0.2789	2.6694	0.7061	0.2580	0.9641	0.0000	2,992.5659	2,992.5659	0.3872	0.0000	3,002.2467

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1759	4.9207	3.9892	0.0115	0.6139	0.0150	0.6289	0.1785	0.0148	0.1932	0.0000	1,066.9001	1,066.9001	0.2169	0.0000	1,072.3218
2020	0.9201	18.0602	9.1179	0.0318	0.6742	0.0339	0.7080	0.1962	0.0326	0.2287	0.0000	2,912.9658	2,912.9658	0.3737	0.0000	2,922.3089
2021	1.1896	15.3718	9.7927	0.0296	0.7846	0.0229	0.8075	0.2152	0.0217	0.2369	0.0000	2,614.6084	2,614.6084	0.2442	0.0000	2,620.7137
2022	1.0922	14.7899	9.0614	0.0291	0.7816	0.0209	0.8026	0.2143	0.0199	0.2342	0.0000	2,566.5303	2,566.5303	0.2302	0.0000	2,572.2843
2023	0.9557	12.5651	8.3046	0.0282	0.7816	0.0150	0.7967	0.2143	0.0142	0.2286	0.0000	2,483.2003	2,483.2003	0.1946	0.0000	2,488.0640
2024	0.9006	12.5184	7.8997	0.0280	0.7877	0.0148	0.8025	0.2160	0.0140	0.2300	0.0000	2,461.3262	2,461.3262	0.1893	0.0000	2,466.0591
2025	0.8439	12.3357	7.4757	0.0274	0.7847	0.0145	0.7992	0.2152	0.0137	0.2289	0.0000	2,412.8919	2,412.8919	0.1824	0.0000	2,417.4511
2026	0.7983	12.2110	7.1560	0.0270	0.7847	0.0141	0.7988	0.2152	0.0134	0.2286	0.0000	2,378.4449	2,378.4449	0.1769	0.0000	2,382.8660
2027	0.7323	11.6843	6.7228	0.0259	0.7577	0.0134	0.7711	0.2078	0.0127	0.2204	0.0000	2,276.2580	2,276.2580	0.1687	0.0000	2,280.4766
2028	37.7473	0.0898	1.2980	2.0900e-003	0.0572	2.9000e-003	0.0601	0.0153	2.8500e-003	0.0182	0.0000	167.7768	167.7768	0.0403	0.0000	168.7836
Maximum	37.7473	18.0602	9.7927	0.0318	0.7877	0.0339	0.8075	0.2160	0.0326	0.2369	0.0000	2,912.9658	2,912.9658	0.3737	0.0000	2,922.3089

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.49	16.24	8.20	0.00	25.71	86.64	33.04	27.81	86.35	45.91	0.00	5.26	5.26	8.38	0.00	5.26

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	1.5268	0.3429
2	4-1-2019	6-30-2019	1.5511	0.3541
3	7-1-2019	9-30-2019	1.6402	0.0858
4	10-1-2019	12-31-2019	6.0504	4.2839

5	1-1-2020	3-31-2020	6.6284	4.9844
6	4-1-2020	6-30-2020	6.7425	5.1092
7	7-1-2020	9-30-2020	5.1353	4.4626
8	10-1-2020	12-31-2020	5.0405	4.3679
9	1-1-2021	3-31-2021	4.6360	4.0413
10	4-1-2021	6-30-2021	4.7792	4.1779
11	7-1-2021	9-30-2021	4.8317	4.2239
12	10-1-2021	12-31-2021	4.7390	4.1311
13	1-1-2022	3-31-2022	4.4197	3.8897
14	4-1-2022	6-30-2022	4.5576	4.0217
15	7-1-2022	9-30-2022	4.6077	4.0659
16	10-1-2022	12-31-2022	4.5180	3.9762
17	1-1-2023	3-31-2023	3.8045	3.3184
18	4-1-2023	6-30-2023	3.9151	3.4236
19	7-1-2023	9-30-2023	3.9581	3.4612
20	10-1-2023	12-31-2023	3.8890	3.3921
21	1-1-2024	3-31-2024	3.7616	3.3039
22	4-1-2024	6-30-2024	3.8284	3.3707
23	7-1-2024	9-30-2024	3.8704	3.4077
24	10-1-2024	12-31-2024	3.8029	3.3402
25	1-1-2025	3-31-2025	3.6391	3.2211
26	4-1-2025	6-30-2025	3.7450	3.3223
27	7-1-2025	9-30-2025	3.7861	3.3588
28	10-1-2025	12-31-2025	3.7200	3.2927
29	1-1-2026	3-31-2026	3.5971	3.1791
30	4-1-2026	6-30-2026	3.7012	3.2785
31	7-1-2026	9-30-2026	3.7418	3.3146
32	10-1-2026	12-31-2026	3.6771	3.2498
33	1-1-2027	3-31-2027	3.5586	3.1406
34	4-1-2027	6-30-2027	3.6610	3.2383
35	7-1-2027	9-30-2027	3.7012	3.2739
36	10-1-2027	12-31-2027	3.2401	2.8325
37	1-1-2028	3-31-2028	0.3090	0.0490
38	4-1-2028	6-30-2028	2.5588	2.3250
39	7-1-2028	9-30-2028	19.1282	19.0850
		Highest	19.1282	19.0850

3.0 Construsing Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	7/1/2019	5	130	
2	Site Preparation	Site Preparation	7/2/2019	10/17/2019	5	78	
3	Grading	Grading	10/18/2019	6/29/2020	5	182	
4	Building Construction	Building Construction	6/30/2020	12/20/2027	5	1950	
5	Paving	Paving	12/21/2027	6/19/2028	5	130	
6	Architectural Coating	Architectural Coating	6/20/2028	12/18/2028	5	130	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 455

Acres of Paving: 0

Residential Indoor: 6,581,250; Residential Outdoor: 2,193,750; Non-Residential Indoor: 3,985,842; Non-Residential Outdoor: 1,328,614;

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

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	9,872.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	262,500.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5,850.00	1,801.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1,170.00	0.00	0.00	1.00	1.00	1.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Alternative Fuel for Construction Equipment
- Use Cleaner Engines for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	----------	-----------	-----	-----	------

Category	tons/yr										MT/yr					
Fugitive Dust					0.7046	0.0000	0.7046	0.3873	0.0000	0.3873	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1691	1.7773	0.8605	1.4800e-003		0.0932	0.0932		0.0858	0.0858	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119
Total	0.1691	1.7773	0.8605	1.4800e-003	0.7046	0.0932	0.7978	0.3873	0.0858	0.4731	0.0000	133.2579	133.2579	0.0422	0.0000	134.3119

	ROG	NOx	CO	SO2	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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896

	ROG	NOx	CO	SO2	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					0.1585	0.0000	0.1585	0.0871	0.0000	0.0871	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0182	0.0787	0.8139	1.4800e-003		2.4200e-003	2.4200e-003		2.4200e-003	2.4200e-003	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118
Total	0.0182	0.0787	0.8139	1.4800e-003	0.1585	2.4200e-003	0.1610	0.0871	2.4200e-003	0.0896	0.0000	133.2577	133.2577	0.0422	0.0000	134.3118

	ROG	NOx	CO	SO2	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	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896
Total	8.6000e-004	4.1000e-004	5.1900e-003	1.0000e-005	5.2000e-004	1.0000e-005	5.3000e-004	1.4000e-004	1.0000e-005	1.5000e-004	0.0000	0.5889	0.5889	3.0000e-005	0.0000	0.5896

Unmitigated Construction On-Site

Category	tons/yr										MT/yr					
Fugitive Dust					0.7484	0.0000	0.7484	0.2575	0.0000	0.2575	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2870	3.2377	2.0613	4.0000e-003		0.1402	0.1402		0.1290	0.1290	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651
Total	0.2870	3.2377	2.0613	4.0000e-003	0.7484	0.1402	0.8887	0.2575	0.1290	0.3865	0.0000	351.4237	351.4237	0.1137	0.0000	354.2651

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	0.2021	9.5944	1.5663	0.0125	0.1050	9.0300e-003	0.1140	0.0283	8.6400e-003	0.0370	0.0000	1,208.2578	1,208.2578	0.1285	0.0000	1,211.4708
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	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	0.2035	9.5951	1.5748	0.0125	0.1059	9.0400e-003	0.1150	0.0286	8.6500e-003	0.0372	0.0000	1,209.3068	1,209.3068	0.1286	0.0000	1,212.5210

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					0.1684	0.0000	0.1684	0.0580	0.0000	0.0580	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0491	0.2129	2.1284	4.0000e-003		6.5500e-003	6.5500e-003		6.5500e-003	6.5500e-003	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647
Total	0.0491	0.2129	2.1284	4.0000e-003	0.1684	6.5500e-003	0.1750	0.0580	6.5500e-003	0.0645	0.0000	351.4233	351.4233	0.1137	0.0000	354.2647

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	0.2021	9.5944	1.5663	0.0125	0.1050	9.0300e-003	0.1140	0.0283	8.6400e-003	0.0370	0.0000	1,208.2578	1,208.2578	0.1285	0.0000	1,211.4708
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	1.4300e-003	6.5000e-004	8.4600e-003	1.0000e-005	9.6000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0490	1.0490	5.0000e-005	0.0000	1.0502
Total	0.2035	9.5951	1.5748	0.0125	0.1059	9.0400e-003	0.1150	0.0286	8.6500e-003	0.0372	0.0000	1,209.3068	1,209.3068	0.1286	0.0000	1,212.5210

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	----------	-----------	-----	-----	------

Category	tons/yr										MT/yr					
Off-Road	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600
Total	0.1410	1.2759	1.1204	1.7900e-003		0.0743	0.0743		0.0699	0.0699	0.0000	154.0206	154.0206	0.0376	0.0000	154.9600

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	0.2262	8.0099	2.2232	0.0100	0.1106	0.0129	0.1236	0.0323	0.0124	0.0446	0.0000	961.4581	961.4581	0.0938	0.0000	963.8036
Worker	0.4309	0.1973	2.5509	3.5200e-003	0.2892	3.9600e-003	0.2931	0.0774	3.6500e-003	0.0810	0.0000	316.3567	316.3567	0.0136	0.0000	316.6970
Total	0.6571	8.2072	4.7741	0.0135	0.3998	0.0169	0.4167	0.1096	0.0160	0.1257	0.0000	1,277.8148	1,277.8148	0.1074	0.0000	1,280.5006

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	0.0104	0.0450	0.6406	1.7900e-003		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	74.4209	74.4209	0.0241	0.0000	75.0226
Total	0.0104	0.0450	0.6406	1.7900e-003		1.3900e-003	1.3900e-003		1.3900e-003	1.3900e-003	0.0000	74.4209	74.4209	0.0241	0.0000	75.0226

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	0.2262	8.0099	2.2232	0.0100	0.1106	0.0129	0.1236	0.0323	0.0124	0.0446	0.0000	961.4581	961.4581	0.0938	0.0000	963.8036
Worker	0.4309	0.1973	2.5509	3.5200e-003	0.2892	3.9600e-003	0.2931	0.0774	3.6500e-003	0.0810	0.0000	316.3567	316.3567	0.0136	0.0000	316.6970
Total	0.6571	8.2072	4.7741	0.0135	0.3998	0.0169	0.4167	0.1096	0.0160	0.1257	0.0000	1,277.8148	1,277.8148	0.1074	0.0000	1,280.5006

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	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

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	0.3965	14.9421	4.0246	0.0195	0.2171	0.0126	0.2297	0.0633	0.0120	0.0753	0.0000	1,868.7810	1,868.7810	0.1734	0.0000	1,873.1155
Worker	0.7727	0.3413	4.5110	6.6800e-003	0.5675	7.6000e-003	0.5751	0.1518	6.9900e-003	0.1588	0.0000	599.7426	599.7426	0.0236	0.0000	600.3323
Total	1.1692	15.2835	8.5356	0.0261	0.7846	0.0202	0.8048	0.2151	0.0190	0.2342	0.0000	2,468.5236	2,468.5236	0.1970	0.0000	2,473.4477

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	0.0204	0.0883	1.2571	3.5100e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.0848	146.0848	0.0473	0.0000	147.2660
Total	0.0204	0.0883	1.2571	3.5100e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.0848	146.0848	0.0473	0.0000	147.2660

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	0.3965	14.9421	4.0246	0.0195	0.2171	0.0126	0.2297	0.0633	0.0120	0.0753	0.0000	1,868.7810	1,868.7810	0.1734	0.0000	1,873.1155
Worker	0.7727	0.3413	4.5110	6.6800e-003	0.5675	7.6000e-003	0.5751	0.1518	6.9900e-003	0.1588	0.0000	599.7426	599.7426	0.0236	0.0000	600.3323
Total	1.1692	15.2835	8.5356	0.0261	0.7846	0.0202	0.8048	0.2151	0.0190	0.2342	0.0000	2,468.5236	2,468.5236	0.1970	0.0000	2,473.4477

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	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

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	0.3656	14.4009	3.7380	0.0192	0.2163	0.0108	0.2271	0.0631	0.0103	0.0734	0.0000	1,844.7741	1,844.7741	0.1623	0.0000	1,848.8304
Worker	0.7063	0.3010	4.0712	6.4100e-003	0.5653	7.4300e-003	0.5727	0.1512	6.8400e-003	0.1581	0.0000	576.1262	576.1262	0.0208	0.0000	576.6464
Total	1.0719	14.7019	7.8092	0.0256	0.7816	0.0182	0.7999	0.2143	0.0172	0.2315	0.0000	2,420.9003	2,420.9003	0.1831	0.0000	2,425.4768

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	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.6300	145.6300	0.0471	0.0000	146.8075
Total	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.6300	145.6300	0.0471	0.0000	146.8075

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	0.3656	14.4009	3.7380	0.0192	0.2163	0.0108	0.2271	0.0631	0.0103	0.0734	0.0000	1,844.7741	1,844.7741	0.1623	0.0000	1,848.8304
Worker	0.7063	0.3010	4.0712	6.4100e-003	0.5653	7.4300e-003	0.5727	0.1512	6.8400e-003	0.1581	0.0000	576.1262	576.1262	0.0208	0.0000	576.6464
Total	1.0719	14.7019	7.8092	0.0256	0.7816	0.0182	0.7999	0.2143	0.0172	0.2315	0.0000	2,420.9003	2,420.9003	0.1831	0.0000	2,425.4768

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
--	-----	-----	----	-----	---------------	--------------	------------	----------------	---------------	-------------	----------	----------	-----------	-----	-----	------

Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

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	0.2853	12.2095	3.3542	0.0185	0.2163	5.0100e-003	0.2214	0.0631	4.7800e-003	0.0679	0.0000	1,782.8855	1,782.8855	0.1290	0.0000	1,786.1098
Worker	0.6501	0.2676	3.6982	6.1600e-003	0.5653	7.3100e-003	0.5726	0.1512	6.7300e-003	0.1580	0.0000	554.5803	554.5803	0.0184	0.0000	555.0414
Total	0.9354	12.4771	7.0524	0.0247	0.7816	0.0123	0.7940	0.2143	0.0115	0.2259	0.0000	2,337.4658	2,337.4658	0.1474	0.0000	2,341.1512

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	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.7345	145.7345	0.0471	0.0000	146.9129
Total	0.0203	0.0880	1.2522	3.5000e-003		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	145.7345	145.7345	0.0471	0.0000	146.9129

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	0.2853	12.2095	3.3542	0.0185	0.2163	5.0100e-003	0.2214	0.0631	4.7800e-003	0.0679	0.0000	1,782.8855	1,782.8855	0.1290	0.0000	1,786.1098
Worker	0.6501	0.2676	3.6982	6.1600e-003	0.5653	7.3100e-003	0.5726	0.1512	6.7300e-003	0.1580	0.0000	554.5803	554.5803	0.0184	0.0000	555.0414
Total	0.9354	12.4771	7.0524	0.0247	0.7816	0.0123	0.7940	0.2143	0.0115	0.2259	0.0000	2,337.4658	2,337.4658	0.1474	0.0000	2,341.1512

3.5 Building Construction - 2024

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	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

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	0.2743	12.1887	3.2228	0.0185	0.2180	4.8200e-003	0.2228	0.0636	4.6000e-003	0.0682	0.0000	1,777.2250	1,777.2250	0.1252	0.0000	1,780.3560
Worker	0.6058	0.2411	3.4150	5.9700e-003	0.5696	7.2700e-003	0.5769	0.1524	6.6900e-003	0.1591	0.0000	537.1863	537.1863	0.0166	0.0000	537.6003
Total	0.8801	12.4298	6.6378	0.0244	0.7877	0.0121	0.7998	0.2160	0.0113	0.2273	0.0000	2,314.4113	2,314.4113	0.1418	0.0000	2,317.9563

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	0.0205	0.0887	1.2619	3.5300e-003		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	146.9149	146.9149	0.0475	0.0000	148.1028
Total	0.0205	0.0887	1.2619	3.5300e-003		2.7300e-003	2.7300e-003		2.7300e-003	2.7300e-003	0.0000	146.9149	146.9149	0.0475	0.0000	148.1028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2743	12.1887	3.2228	0.0185	0.2180	4.8200e-003	0.2228	0.0636	4.6000e-003	0.0682	0.0000	1,777.2250	1,777.2250	0.1252	0.0000	1,780.3560
Worker	0.6058	0.2411	3.4150	5.9700e-003	0.5696	7.2700e-003	0.5769	0.1524	6.6900e-003	0.1591	0.0000	537.1863	537.1863	0.0166	0.0000	537.6003
Total	0.8801	12.4298	6.6378	0.0244	0.7877	0.0121	0.7998	0.2160	0.0113	0.2273	0.0000	2,314.4113	2,314.4113	0.1418	0.0000	2,317.9563

3.5 Building Construction - 2025

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

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	0.2626	12.0316	3.0949	0.0182	0.2172	4.6000e-003	0.2218	0.0634	4.3900e-003	0.0677	0.0000	1,752.7011	1,752.7011	0.1202	0.0000	1,755.7070
Worker	0.5609	0.2158	3.1237	5.7100e-003	0.5675	7.1700e-003	0.5746	0.1518	6.6000e-003	0.1584	0.0000	513.7468	513.7468	0.0148	0.0000	514.1160
Total	0.8235	12.2473	6.2186	0.0239	0.7847	0.0118	0.7964	0.2152	0.0110	0.2262	0.0000	2,266.4479	2,266.4479	0.1350	0.0000	2,269.8231

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	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281
Total	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281

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	0.2626	12.0316	3.0949	0.0182	0.2172	4.6000e-003	0.2218	0.0634	4.3900e-003	0.0677	0.0000	1,752.7011	1,752.7011	0.1202	0.0000	1,755.7070
Worker	0.5609	0.2158	3.1237	5.7100e-003	0.5675	7.1700e-003	0.5746	0.1518	6.6000e-003	0.1584	0.0000	513.7468	513.7468	0.0148	0.0000	514.1160
Total	0.8235	12.2473	6.2186	0.0239	0.7847	0.0118	0.7964	0.2152	0.0110	0.2262	0.0000	2,266.4479	2,266.4479	0.1350	0.0000	2,269.8231

3.5 Building Construction - 2026

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	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

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	0.2540	11.9274	3.0118	0.0180	0.2172	4.4000e-003	0.2216	0.0634	4.1900e-003	0.0676	0.0000	1,737.2052	1,737.2052	0.1162	0.0000	1,740.1096
Worker	0.5239	0.1953	2.8872	5.4900e-003	0.5675	7.0300e-003	0.5745	0.1518	6.4700e-003	0.1583	0.0000	494.7957	494.7957	0.0133	0.0000	495.1283
Total	0.7779	12.1227	5.8989	0.0235	0.7847	0.0114	0.7961	0.2152	0.0107	0.2258	0.0000	2,232.0008	2,232.0008	0.1295	0.0000	2,235.2380

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	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281
Total	0.0204	0.0883	1.2571	3.5200e-003		2.7200e-003	2.7200e-003		2.7200e-003	2.7200e-003	0.0000	146.4440	146.4440	0.0474	0.0000	147.6281

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	0.2540	11.9274	3.0118	0.0180	0.2172	4.4000e-003	0.2216	0.0634	4.1900e-003	0.0676	0.0000	1,737.2052	1,737.2052	0.1162	0.0000	1,740.1096
Worker	0.5239	0.1953	2.8872	5.4900e-003	0.5675	7.0300e-003	0.5745	0.1518	6.4700e-003	0.1583	0.0000	494.7957	494.7957	0.0133	0.0000	495.1283
Total	0.7779	12.1227	5.8989	0.0235	0.7847	0.0114	0.7961	0.2152	0.0107	0.2258	0.0000	2,232.0008	2,232.0008	0.1295	0.0000	2,235.2380

3.5 Building Construction - 2027

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	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358
Total	0.1723	1.5712	2.0267	3.4000e-003		0.0665	0.0665		0.0625	0.0625	0.0000	292.2185	292.2185	0.0687	0.0000	293.9358

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	0.2384	11.4223	2.8449	0.0173	0.2097	4.0700e-003	0.2138	0.0612	3.8800e-003	0.0651	0.0000	1,664.4118	1,664.4118	0.1085	0.0000	1,667.1243
Worker	0.4728	0.1712	2.5861	5.1200e-003	0.5479	6.5200e-003	0.5544	0.1466	6.0000e-003	0.1526	0.0000	461.4011	461.4011	0.0116	0.0000	461.6911
Total	0.7113	11.5935	5.4310	0.0224	0.7576	0.0106	0.7682	0.2078	9.8800e-003	0.2176	0.0000	2,125.8129	2,125.8129	0.1201	0.0000	2,128.8153

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	0.0197	0.0853	1.2137	3.4000e-003		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	141.3942	141.3942	0.0457	0.0000	142.5375
Total	0.0197	0.0853	1.2137	3.4000e-003		2.6200e-003	2.6200e-003		2.6200e-003	2.6200e-003	0.0000	141.3942	141.3942	0.0457	0.0000	142.5375

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	0.2384	11.4223	2.8449	0.0173	0.2097	4.0700e-003	0.2138	0.0612	3.8800e-003	0.0651	0.0000	1,664.4118	1,664.4118	0.1085	0.0000	1,667.1243
Worker	0.4728	0.1712	2.5861	5.1200e-003	0.5479	6.5200e-003	0.5544	0.1466	6.0000e-003	0.1526	0.0000	461.4011	461.4011	0.0116	0.0000	461.6911
Total	0.7113	11.5935	5.4310	0.0224	0.7576	0.0106	0.7682	0.2078	9.8800e-003	0.2176	0.0000	2,125.8129	2,125.8129	0.1201	0.0000	2,128.8153

3.6 Paving - 2027

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	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.1200e-003	0.0386	0.0656	1.0000e-004		1.8800e-003	1.8800e-003		1.7300e-003	1.7300e-003	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

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-005	2.0000e-005	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423

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	1.2600e-003	5.4700e-003	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2600e-003	5.4700e-003	0.0778	1.0000e-004		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	9.0087	9.0087	2.9100e-003	0.0000	9.0815

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-005	2.0000e-005	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423
Total	4.0000e-005	2.0000e-005	2.4000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0423	0.0423	0.0000	0.0000	0.0423

3.6 Paving - 2028

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	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0554	0.5192	0.8820	1.3800e-003		0.0253	0.0253		0.0233	0.0233	0.0000	121.1165	121.1165	0.0392	0.0000	122.0958

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506

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	0.0170	0.0735	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0170	0.0735	1.0464	1.3800e-003		2.2600e-003	2.2600e-003		2.2600e-003	2.2600e-003	0.0000	121.1164	121.1164	0.0392	0.0000	122.0956

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	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506
Total	5.4000e-004	1.9000e-004	2.9700e-003	1.0000e-005	6.7000e-004	1.0000e-005	6.8000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	0.5502	0.5502	1.0000e-005	0.0000	0.5506

3.7 Architectural Coating - 2028

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	37.6842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188
Total	37.6953	0.0745	0.1176	1.9000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	16.5962	16.5962	9.1000e-004	0.0000	16.6188

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	0.0455	0.0161	0.2487	5.1000e-004	0.0565	6.3000e-004	0.0572	0.0151	5.8000e-004	0.0157	0.0000	46.1102	46.1102	1.0900e-003	0.0000	46.1374
Total	0.0455	0.0161	0.2487	5.1000e-004	0.0565	6.3000e-004	0.0572	0.0151	5.8000e-004	0.0157	0.0000	46.1102	46.1102	1.0900e-003	0.0000	46.1374

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	37.6842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	1.9000e-004		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	37.6842	0.0000	0.0000	1.9000e-004		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.0455	0.0161	0.2487	5.1000e-004	0.0565	6.3000e-004	0.0572	0.0151	5.8000e-004	0.0157	0.0000	46.1102	46.1102	1.0900e-003	0.0000	46.1374
Total	0.0455	0.0161	0.2487	5.1000e-004	0.0565	6.3000e-004	0.0572	0.0151	5.8000e-004	0.0157	0.0000	46.1102	46.1102	1.0900e-003	0.0000	46.1374