Appendix B

Air Quality and GHG Emissions Technical Report

SoCalGas

Ventura Compressor Station Modernization Project

1555 N. Olive St.
Ventura, CA 93001

April 2023

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Prepared for:

SoCalGas
Ventura Compressor Station
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Ventura, CA 93001

April 2023

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List of Acronyms and Abbreviations

AAQS	Ambient Air Quality Standard
AERMOD	American Meteorological Society/EPA Regulatory Model
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
ATC	Authority to Construct
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BHP	Brake Horsepower
BMP	Best Management Practice
Btu	British Thermal Unit
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emissions Estimator Model®
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
DPM	Diesel Particulate Matter
EDC	Electric-Driven Compressor
EIA	[United States] Energy Information Administration
EPA	[United States] Environmental Protection Agency
GHG	Greenhouse Gas
GLC	Ground Level Concentration
GWP	Global Warming Potential
HAE	Historic Actual Emissions
HARP2	Hotspots Analysis and Reporting Program, Version 2
HHDT	Heavy-Heavy Duty Truck
HIA	Acute Hazard Index
HIC	Chronic Hazard Index
HP	Horsepower
HRA	Health Risk Assessment
hr	Hour
IPCC	Intergovernmental Panel on Climate Change
kW	Kilowatt
lb	Pound

LDA	Light Duty Automobile
LDAR	Leak Detection and Reporting
LDT	Light Duty Truck
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
MHDT	Medium Heavy-Duty Truck
MICR	Maximum Individual Cancer Risk
MMBtu	Million British Thermal Units
MMscf	Million Standard Cubic Feet
MT	Metric Ton
MWh	Megawatt-hour
NA	Not Applicable
NAAQS	National Ambient Air Quality Standard
NEI	Net Emissions Increase
N_2O	Nitrous Oxide
NO_x	Nitrogen Oxides
NSCR	Non-Selective Catalytic Reduction
NSR	New Source Review
OEHHA	[California] Office of Environmental Health Hazard Assessment
OPR	[California] Office of Planning and Research
PEA	Proponents Environmental Assessment
PM_{10}	Respirable Particulate Matter
$PM_{2.5}$	Fine Particulate Matter
PTE	Potential to Emit
ROC	Reactive Organic Compound
R/ODS	Refrigerants/Ozone-Depleting Substances
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SIL	Significant Impact Level
SJVAPCD	San Joaquin Valley Air Pollution Control District
SoCalGas	Southern California Gas Company
SO_2	Sulfur Dioxide
SO_x	Oxides of Sulfur
TAC	Toxic Air Contaminant
TCR	The Climate Registry
VCAPCD	Ventura County Air Pollution Control District
VCS	Ventura Compressor Station
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
yr	year
$\mu g/m^3$	micrograms per cubic meter

Ventura Compressor Station Modernization Project Air Quality and Greenhouse Gas Emissions Technical Report

1.0 BACKGROUND

1.1 Project Components

SoCalGas is proposing a project to modernize the Ventura Compressor Station (VCS) by replacing the existing gas compression equipment at this site with new compression equipment that has state of the art air emission controls. The VCS is a natural gas gathering and boosting station with high-pressure gas transmission pipelines entering and leaving the station to move gas to the SoCalGas La Goleta Storage Field, as well as provide service to customers in the system. The VCS is located at 1555 North Olive Street, Ventura, CA 93001.

The existing facility consists of three 1,100 horsepower (HP) natural gas-fired reciprocating internal combustion engines that drive high-pressure gas compressors (natural gas compressors) and one 68 HP diesel-fired emergency generator engine. The existing equipment will be decommissioned and demolished approximately 1 year after the replacement equipment is fully operational with demonstrated reliability.

The proposed VCS Modernization Project (Project) includes installation of four new reciprocating compressors: two each driven by 1,900-HP natural gas engines with non-selective catalytic reduction (NSCR) emission control equipment and two each nominal up to 2,500 HP (1,963 kilowatts [kW]) electric-driven compressors (EDCs), as well as one new 840-HP natural gas-fired standby generator engine, rated at approximately 560 kW peak output power. New structures include the compressor building, office building, warehouse, and standby generator enclosure. Additional ancillary equipment includes gas filtration equipment, supporting mechanical equipment, and storage tanks/drums, where the engine oil, oil waste, and oily waste storage drums are anticipated to be the only ancillary equipment that could have air pollutant emissions, albeit the emissions would be negligible. The proposed facility enhancements would increase electric power demand, primarily for operation of the new EDCs. No off-site road improvements, pipeline extensions, or other permanent infrastructure would be necessary to construct the Project.

SoCalGas submitted an Authority to Construct (ATC) application package for a prior proposed Project that consisted of four replacement natural gas-fired engines in March 2020 and a preliminary draft ATC was provided by the Ventura County Air Pollution Control District (VCAPCD) in November 2020. That application has been withdrawn pending development of this revised Project.

1.2 Report Contents

This technical report analyzes impacts from air quality and greenhouse gas (GHG) emissions related to construction and operation of the proposed Project. The proposed Project criteria pollutant and GHG emissions and the effect of emissions on air quality are compared to relevant California Environmental Quality Act (CEQA) significance thresholds to determine the significance of the potential impacts.

2.0 AIR QUALITY IMPACT ANALYSES

The air quality impact analyses were prepared in accordance with the VCAPCD's Ventura County Air Quality Assessment Guidelines (VCAPCD Guidelines) (VCAPCD 2003).

2.1 Air Quality Thresholds of Significance

2.1.1 Criteria Pollutant Emissions

"Criteria" pollutants are those for which health-based standards have been established on either the national or State level. Ventura County has been designated as being over the established health-based ambient air quality standards (AAQS) at both the State and national levels for ozone and over the State standards for respirable particulate matter (PM_{10}). Ozone is not typically a directly emitted pollutant, but rather is a result of atmospheric photochemical reactions of nitrogen oxides (NO_x) and reactive organic compounds (ROC) "precursor" emissions in the presence of sunlight. Therefore, these "nonattainment" pollutants are of the most concern in determining the potential for a project in Ventura County to impact air quality.

2.1.1.1 Construction Emissions Significance Thresholds

The VCAPCD Guidelines provide significance thresholds for the ozone precursors NO_x and ROC of 25 pounds per day of emissions from construction activities related to a project as shown in Table 2-1 (VCAPCD 2003).

Table 2-1: VCAPCD CEQA Mass Daily Significance Thresholds

Pollutant	Project Emissions Significance Threshold (lbs/day)
ROC	25
NO_x	25

Source: VCAPCD 2003

For construction impacts, rather than having numeric significance thresholds for respirable particulate matter (PM_{10}), the VCAPCD Guidelines recommend minimizing fugitive dust through dust control measures.

Impacts related to fugitive dust are mitigated by the application of Best Management Practices (BMPs) such as watering, limiting track-out, covering haul trucks carrying bulk materials with a tarp, and reducing speed on unpaved areas. These measures are required by VCAPCD Rule 55, Fugitive Dust, which minimizes fugitive dust generation. Other BMPs such as limiting construction activities during high wind events are recommended by the California Public Utilities Commission (CPUC) Guidelines (2019). The BMPs that will be implemented for the Project are discussed in Section 5.3, Air Quality, of the Proponents Environmental Assessment (PEA).

2.1.1.2 Operational Emissions Significance Thresholds

According to the VCAPCD Guidelines, the thresholds shown in Table 2-1 are applied to unpermitted sources of NO_x and ROC emissions associated with operation of the Project. Emissions from equipment requiring VCAPCD permits, specifically stationary equipment, are not counted towards these air quality significance thresholds because they are subject to rigorous New Source Review (NSR) permit requirements. Unpermitted sources are not

subject to these NSR rules but could contribute ozone precursor emissions, which would exacerbate exceedances of the State and national ozone AAQS.

The VCAPCD Guidelines do not provide numeric thresholds for operational emissions of PM_{10} or other criteria pollutants. The VCAPCD's NSR program and other rules and regulations would limit criteria pollutant emissions from stationary sources and minimize the potential for emissions of other pollutants to lead to significant impacts. A modeling analysis of air quality impacts may also be needed as discussed below.

2.1.2 Criteria Pollutants – Air Quality Impact Analysis

VCAPCD Guidelines indicate that for criteria pollutants other than NO_x and ROC, an Air Quality Impact Analysis (AQIA) based on dispersion modeling may be needed to demonstrate that the emissions will not cause a substantial contribution to an existing exceedance of an air quality standard. "Substantial" is defined as making measurably worse an existing exceedance of a National or California Ambient Air Quality Standard (NAAQS/CAAQS). Because Ventura County is designated as nonattainment for the PM_{10} CAAQS, a demonstration that the Project will not contribute to an exceedance is needed.

The California Office of Planning and Research (OPR) CEQA Guidelines (Title 14, Division 6, Chapter 3 of the California Code of Regulations) Appendix G checklist questions (OPR 2022) require assessment of any criteria pollutant for which the project region is designated as nonattainment under an applicable NAAQS or CAAQS to determine if there would be a cumulatively considerable net increase of that pollutant. Ventura County is designated as attainment for the NAAQS and CAAQS for carbon monoxide (CO), sulfur dioxide (SO_2), and fine particulate matter ($PM_{2.5}$), as well as other pollutants for which there are CAAQS, but is designated as nonattainment of the CAAQS for PM_{10}. Based on the OPR CEQA Guidelines, AQIA modeling is only needed for PM_{10}.

Since Ventura County is nonattainment for PM_{10}, the background concentration is greater than the CAAQS; thus, the AQIA modeling results are compared to Significant Impact Levels (SILs) to determine if the Project will have a "significant contribution" to an existing exceedance. Because the VCAPCD Guidelines do not identify SILs for PM_{10}, the PM_{10} SILs provided in the San Joaquin Valley Air Pollution Control District (SJVAPCD) Policy APR 1925 were used to assess the PM_{10} impacts for the proposed Project and are shown in Table 2-2.

Table 2-2: AQIA Significant Impact Levels for PM_{10}

Pollutant	Averaging Time	Significant Impact Level (SIL)[1] ($\mu g/m^3$)
PM_{10}	24 Hour	5.0
	Annual	1.0

Note:

1. SJVAPCD Policy APR 1925 (2014)

2.1.3 Toxic Air Contaminants

In addition to criteria pollutants, carcinogenic and other health effects can be caused by toxic air contaminant (TAC) emissions. Impacts from TAC emissions are estimated by

conducting a health risk assessment (HRA). The VCAPCD Guidelines (2003) have defined significance criteria for health risks as shown in Table 2-3.

Table 2-3: VCAPCD HRA Significance Thresholds

Risk	Threshold
Maximum Individual Cancer Risk (MICR)	10 in one million
Chronic Hazard Index (HIC)	1
Acute Hazard Index (HIA)	1

2.2 Proposed Project Construction and Operations Emissions Analyses

2.2.1 Construction and Demolition Emissions Impact Analysis

2.2.1.1 Construction and Demolition Emissions Calculation Methodology

The analysis of offroad construction/demolition emissions was performed using the California Emissions Estimator Model® (CalEEMod) version 2022.1, the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of projects under CEQA. The model quantifies direct emissions from construction (including demolition) and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from electricity use, solid waste disposal, vegetation planting and/or removal, and water use.

The mobile source emission factors used in the model – published by the California Air Resources Board (CARB) – include the Pavley standards and Low Carbon Fuel standards. The emissions model also identifies project design features, regulatory measures, and mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the South Coast Air Quality Management District (SCAQMD), the Bay Area Air Quality Management District (BAAQMD), the SJVAPCD, and other California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction offroad emissions quantification, which forms the basis for the emissions impact analyses.

2.2.1.2 Proposed Project Construction and Demolition Description

The proposed Project is expected to require up to approximately 25 months of planned work activities (i.e., from mobilization to substantial completion) comprising of the following construction phases:

1) Subsurface Exploration
2) Existing Project Site Demo
3) Site Preparation/ Rough Grading
4) Foundations
5) Trenching/Undergrounds
6) Equipment, Structural Steel & Building Erection, Piping
7) Electrical & Instrumentation
8) Paving
9) Painting/Insulation
10) Pre-Commissioning/Commissioning/ Startup and Testing
11) Post Construction/Site Restoration

Phase 2, Existing Project Site Demo, includes demolition of existing paved (asphalt and concrete) surfaces at the southern half of the Project site as well as other infrastructure around the site. Approximately 1 year after the proposed new compressors are fully operational, the existing equipment will be decommissioned and removed from the site (Phase 12). A description of the activities planned for each of these phases is provided in Chapter 3, Project Description, of the PEA.

Based on information received from SoCalGas, data used for CalEEMod inputs for construction are presented in Table 2-4. Since demolition of the existing structures will be done approximately 1 year after the replacement compressors are fully operational, the estimated square footages of the structures to be demolished during the decommissioning demolition phase (Phase 12) are presented separately in Table 2-5. A preliminary construction/demolition schedule is shown in Table 2-6. The proposed list of offroad construction/demolition equipment is shown in Table 2-7. CalEEMod defaults were used for the offroad construction/demolition equipment load factor. CalEEMod defaults were also used for the HP of the electric and some diesel offroad equipment when the HP was not available.

Table 2-4: Proposed Project Construction Land Use Data for CalEEMod Input

Project Element	CalEEMod Land Use Type	Land Use Subtype	Square Feet	Acres Disturbed
Office	Commercial	General Office Building	4,641	0.11
Warehouse	Industrial	General Heavy Industry	5,459	0.13
Compressor Station	Industrial	General Heavy Industry	10,458	0.24
Power Distribution Center (PDC) Building	Industrial	General Heavy Industry	2,016	0.05
Standby Generator Enclosure	Industrial	General Heavy Industry	442	0.01
Paved Areas	Parking	Other Asphalt Surfaces	343,759	7.89
All Project Sites			**366,775**	**8.42**

Source: SoCalGas, CalEEMod version 2022.1

Notes:

Climate Zone 8 – Ventura, Ventura County

Electric Utility: SCE

Table 2-5: Proposed Structure Demolition Data for CalEEMod Input

Project Element	Square Feet	Acres
Office Trailer	1,500	0.03
Storage Containers	1,500	0.03
Compressor Building, Piping, and Equipment	19,000	0.44
All Project Sites	**22,000**	**0.51**

Source: SoCalGas

Notes:

Climate Zone 8 – Ventura, Ventura County

Electric Utility: SCE

Table 2-6: Proposed Project Preliminary Construction/Demolition Schedule by Phase

Phase		Construction Phase	Phase Start Date[1]	Phase End Date	Expected Working Days Per Phase
Construction	1	Subsurface Exploration	5/1/2029	7/3/2029	46
	2	Existing Project Site Demolition	6/15/2029	6/29/2029	11
	3	Site Preparation/Rough Grading	7/4/2029	7/25/2029	16
	4	Foundations	8/1/2029	3/20/2030	166
	5	Trenching/Undergrounds	2/1/2030	4/19/2030	56
	6	Equipment, Structural Steel & Building Erection, Piping	10/1/2029	7/22/2030	211
	7	Electrical & Instrumentation	6/1/2030	4/5/2031	220
	8	Paving	6/1/2031	7/27/2031	40
	9	Painting/Insulation	7/1/2031	8/26/2031	41
	10	Commissioning/Startup and Testing	5/1/2031	9/30/2031	109
	11	Site Restoration[2]	–	–	20
Demolition[3]	12	Decommissioning Demolition	10/1/2032	12/30/2032	65

Notes:

1. This analysis assumed construction would start in May 2029. Current expectation is that construction will start in July or August 2029. The analysis was not revised because the earlier start date is conservative.
2. No offroad equipment are expected to be used for Phase 11, so specific start and end dates are not included.
3. Decommissioning demolition is assumed to be done approximately one year after the new replacement compressors are fully operational.

Table 2-7: Proposed Project Offroad Construction Equipment Used for CalEEMod Input

Phase Name		Equipment Type	HP[1]	No. per Day	Fuel Type[2]	Hours Per Day[3]	Load Factor[4]
1	Subsurface Exploration (Site Preparation)	Tractors/Loaders/Backhoes	107	1	Diesel	9	0.37
		Excavators	45	1	Diesel	9	0.38
		Air Compressors	2	1	Diesel	9	0.48
		Off-Highway Trucks	500	1	Diesel	9	0.38
		Tractors/Loaders/Backhoes	321	1	Diesel	9	0.37
		Bore/Drill Rigs	300	1	Diesel	9	0.50
2	Existing Project Site Demolition (Demolition A)	Concrete/Industrial Saws	33	1	Diesel	9	0.73
		Tractors/Loaders/Backhoes	107	1	Diesel	9	0.37
		Excavators	45	1	Diesel	9	0.38
		Air Compressors	2	1	Diesel	9	0.48
		Off-Highway Trucks	500	1	Diesel	9	0.38
		Tractors/Loaders/Backhoes	321	1	Diesel	9	0.37
		Skid Steer Loaders	65	1	Diesel	9	0.37

Phase Name		Equipment Type	HP[1]	No. per Day	Fuel Type[2]	Hours Per Day[3]	Load Factor[4]
3	Site Preparation/ Rough Grading (Grading)	Excavators	45	1	Diesel	9	0.38
		Tractors/Loaders/Backhoes	107	1	Diesel	9	0.37
		Air Compressors	2	1	Diesel	9	0.48
		Rubber Tired Dozers	367	1	Diesel	8[5]	0.40
		Off-Highway Trucks	500	1	Diesel	9	0.38
4	Foundations (Building Construction 1)	Air Compressors	10	1	Diesel	9	0.48
		Cranes	275	1	Diesel	9	0.29
		Excavators	45	1	Diesel	9	0.38
		Excavators	346	1	Diesel	9	0.38
		Forklifts	74	1	Diesel	9	0.20
		Forklifts	[82]	1	Electric	9	0.20
		Generator Sets	49	4	Diesel	9	0.74
		Off-Highway Trucks	500	1	Diesel	9	0.38
		Rubber Tired Dozers	170	1	Diesel	9	0.40
		Tractors/Loaders/Backhoes	225	1	Diesel	9	0.37
		Tractors/Loaders/Backhoes	321	1	Diesel	9	0.37
		Tractors/Loaders/Backhoes	107	2	Diesel	9	0.37
		Welders	24	4	Diesel	9	0.45
5	Trenching/ Undergrounds (Trenching)	Pumps[6]	[11]	4	Diesel	9	0.74
		Excavators	45	1	Diesel	9	0.38
6	Equipment, Structural Steel & Building Erection, Piping (Building Construction 2)	Aerial Lifts	84	1	Diesel	9	0.31
		Aerial Lifts	67	2	Diesel	9	0.31
		Aerial Lifts	[46]	5	Electric	9	0.31
		Air Compressors	49	1	Diesel	9	0.48
		Air Compressors	10	2	Diesel	9	0.48
		Cranes	200	1	Diesel	9	0.29
		Cranes	275	2	Diesel	9	0.29
		Excavators	45	1	Diesel	9	0.38
		Forklifts	[82]	1	Electric	9	0.20
		Forklifts	122	1	Diesel	9	0.20
		Forklifts	74	2	Diesel	9	0.20
		Generator Sets	49	5	Diesel	9	0.74
		Off-Highway Trucks	500	1	Diesel	9	0.38
		Tractors/Loaders/Backhoes	225	2	Diesel	9	0.37
		Welders	24	3	Diesel	9	0.45
		Welders	[46]	5	Electric	9	0.45
7	Electrical & Instrumentation (Building Construction 3)	Aerial Lifts	[46]	4	Electric	9	0.31
		Air Compressors	49	1	Diesel	9	0.48
		Air Compressors	10	2	Diesel	9	0.48
		Cranes	200	1	Diesel	9	0.29

Phase Name		Equipment Type	HP[1]	No. per Day	Fuel Type[2]	Hours Per Day[3]	Load Factor[4]
		Cranes	275	2	Diesel	9	0.29
		Forklifts	[82]	1	Electric	9	0.20
		Forklifts	74	2	Diesel	9	0.20
		Generator Sets	49	5	Diesel	9	0.74
		Off-Highway Trucks	500	1	Diesel	9	0.38
		Tractors/Loaders/Backhoes	225	2	Diesel	9	0.37
		Welders	[46]	5	Electric	9	0.45
		Welders	24	5	Diesel	9	0.45
8	Paving (Paving)	Rollers	125	1	Diesel	9	0.38
9	Painting/ Insulation (Architectural Coating)	Air Compressors	10	1	Diesel	9	0.48
		Generator Sets	49	1	Diesel	9	0.74
10	Commissioning / Startup and Testing (Building Construction 4)	Aerial Lifts	[46]	4	Electric	9	0.31
		Air Compressors	49	1	Diesel	9	0.48
		Cranes	275	1	Diesel	9	0.29
		Forklifts	74	1	Diesel	9	0.20
		Forklifts	[82]	1	Electric	9	0.20
		Generator Sets	49	3	Diesel	9	0.74
		Tractors/Loaders/Backhoes	225	2	Diesel	9	0.37
		Welders	[46]	2	Electric	9	0.45
		Welders	24	3	Diesel	9	0.45
12	Decommissioning Demolition (Demolition B)	Concrete/Industrial Saws	33	1	Diesel	9	0.73
		Excavators	45	1	Diesel	9	0.38
		Aerial Lifts	[46]	4	Electric	9	0.31
		Air Compressors	49	1	Diesel	9	0.48
		Cranes	275	1	Diesel	9	0.29
		Forklifts	74	1	Diesel	9	0.20
		Forklifts	[82]	1	Electric	9	0.20
		Generator Sets	49	3	Diesel	9	0.74
		Tractors/Loaders/Backhoes	225	2	Diesel	9	0.37
		Welders	[46]	2	Electric	9	0.45
		Welders	24	3	Diesel	9	0.45

Notes:

1. Engine horsepower ratings in brackets are CalEEMod default values (version 2022.1).
2. All diesel engines are assumed to be EPA Tier 4 Final and Electric engines have an average electric mix.
3. Construction is expected to occur for up to 10 hours/day, with equipment use up to 9 hours/day.
4. Engine load factors are CalEEMod default values (version 2022.1).
5. CalEEMod default value of 8 hours per day used for this equipment in Phase 3.
6. Pumps conservatively modeled as diesel units in Phase 5 rather than as electric units in Phase 4 as planned for construction.
7. No offroad equipment are expected to be used for Phase 11, Site Restoration, so this phase is not included.

Generally speaking, impacts of criteria pollutant emissions are analyzed within the local area or air basin, in this case within Ventura County. GHG emissions, on the other hand, are global impacts and are usually assessed anywhere within California for CEQA analyses. Therefore, the criteria pollutant emissions and GHG emissions from construction and demolition were estimated in two separate CalEEMod runs. In the first CalEEMod run (Attachment A.1), the criteria pollutant emissions for the hauling trips for subsurface exploration, site preparation/rough grading, foundation, and trenching phases were estimated using a one-way distance of 42 miles (the average distance from the Project site to the County line (e.g., going northeast toward Bakersfield, east toward Simi Valley, or southeast toward Westlake Village, CA). In the second CalEEMod run (Attachment A.2), the GHG emissions were estimated for the hauling trips for these phases using a distance of 296 miles (distance from the VCS site to the Arizona State line). These distances are based on a conservative estimate that some of the supplies may come from outside of Ventura County and that some of the equipment may come from outside of California. The CalEEMod default distance of 20 miles was used for the demolition phase hauling trips. Table 2-8 summarizes the construction and demolition trip rates and mileages.

Table 2-8: Proposed Project Construction Traffic Summary

Phase	Work Description	Trip Type	One-Way Trips per Day	Miles per One-Way Trip	Vehicle Mix[3]
1	Subsurface Exploration	Worker	28	10	LDA, LDT1, LDT2
	Subsurface Exploration	Vendor	8	10	HHDT, MHDT
	Subsurface Exploration [1]	Hauling	13	42 (*296*)	HHDT
2	Existing Project Site Demo	Worker	22	10	LDA, LDT1, LDT2
	Existing Project Site Demo	Vendor	8	10	HHDT, MHDT
	Existing Project Site Demo [2]	Hauling	48	20	HHDT
3	Site Preparation/Rough Grading	Worker	30	10	LDA, LDT1, LDT2
	Site Preparation/Rough Grading	Vendor	10	10	HHDT, MHDT
	Site Preparation/Rough Grading [1]	Hauling	8	42 (*296*)	HHDT
4	Foundations	Worker	68	10	LDA, LDT1, LDT2
	Foundations	Vendor	16	10	HHDT, MHDT
	Foundations [1]	Hauling	25	42 (*296*)	HHDT
5	Trenching/Undergrounds	Worker	46	10	LDA, LDT1, LDT2
	Trenching/Undergrounds	Vendor	2	10	HHDT, MHDT
	Trenching/Undergrounds [1]	Hauling	16	42 (*296*)	HHDT
6	Equipment, Structural Steel & Building Erection, and Piping	Worker	78	10	LDA, LDT1, LDT2
	Equipment, Structural Steel & Building Erection, and Piping	Vendor	22	10	HHDT, MHDT
7	Electrical & Instrumentation	Worker	36	10	LDA, LDT1, LDT2
	Electrical & Instrumentation	Vendor	16	10	HHDT, MHDT
8	Paving	Worker	22	10	LDA, LDT1, LDT2
9	Painting/Insulation	Worker	4	10	LDA, LDT1, LDT2
10	Commissioning/Startup and Testing	Worker	28	10	LDA, LDT1, LDT2

Phase	Work Description	Trip Type	One-Way Trips per Day	Miles per One-Way Trip	Vehicle Mix[3]
	Commissioning/Startup and Testing	Vendor	12	10	HHDT, MHDT
12	Decommissioning Demolition	Worker	28	10	LDA, LDT1, LDT2
	Decommissioning Demolition	Vendor	18	10	HHDT, MHDT
	Decommissioning Demolition [2]	Hauling	3	20	HHDT

Notes:

1. Hauling trip mileages for Subsurface Exploration, Site Preparation/Rough Grading, Foundations, and Trenching phases are average one-way distances from the Project site to County Line for criteria pollutant emissions since the trip destinations/directions are not known. The second value in italics is the one-way hauling distances from the Project site to the Arizona State Line used to estimate GHG emissions.
2. Hauling trip mileages for Demolition phases (Phases 2 and 12) are CalEEMod defaults.
3. Vehicle mix: LDA=Light Duty Automobile, LDT1=Light Duty Trucks up to 3,750 lbs loaded vehicle weight (LVW), LDT2=Light Duty Trucks 3,750-8,500 lbs LVW, MHDT=Medium Heavy-Duty Trucks (8,500-14,000 lbs), HHDT=Heavy, Heavy-Duty Trucks (>14,000 lbs).
4. No offroad equipment are expected to be used for Phase 11, Site Restoration, so this phase is not included.

2.2.1.3 Results of Emissions Analysis for Project Construction and Demolition

The construction/demolition schedule and data shown in Tables 2-4 through 2-8 are preliminary/subject to change and are dependent on when the required permits are issued; the information presented above represents a reasonable construction scenario to be used for emissions estimation. As noted in Table 2-6, this analysis assumed construction would start in May 2029. Current expectation is that construction will start in July or August 2029, however, the analysis was not revised because the earlier start date is conservative.

A project's construction/demolition phases produce many types of emissions. Particulate matter (i.e., PM_{10} and $PM_{2.5}$) is emitted from the construction equipment engine exhaust and also as fugitive dust that is caused by wind and construction activities on disturbed soil. The particulate matter emitted from diesel-powered construction equipment engine exhaust will primarily be diesel particulate matter (DPM). Construction-related emissions can cause temporary increases in localized concentrations of particulate matter, as well as affect compliance with the AAQS on a regional basis. The use of diesel-powered construction equipment also emits the ozone precursors NO_x and ROC. Use of architectural coatings and other materials associated with finishing buildings and equipment protection may also emit ROC and TACs. Table 2-9 presents the peak daily emissions of each criteria pollutant for each individual phase based on the CalEEMod outputs provided in Attachment A.1.

As shown in this table, the peak daily ROC emissions will occur during Phase 9, Painting/Insulation, the peak daily NO_x and PM_{10} emissions during Phase 2, Existing Site Demo, peak daily CO and SO_x during Phase 4, Foundations, and peak daily $PM_{2.5}$ during Phase 3, Site Preparation/Rough Grading. The ROC and NO_x peak daily emissions are below the 25 pounds per day significance threshold from the VCAPCD Guidelines (2003) shown in Table 2-1 for each individual phase.

Table 2-9: Estimated Peak Daily Emissions by Each Construction/Demolition Phase

Construction/Demolition[2] Phase		Year[3]	Emissions[1] (lbs/day)					
			ROC	NOx	CO	SOx	Total[4] PM_{10}	Total[4] $PM_{2.5}$
1	Subsurface Exploration	2029	0.76	6.33	38.0	0.08	0.93	0.37
2	Existing Project Site Demo	2029	0.59	9.31	25.7	0.07	3.90	0.83
3	Site Preparation/Rough Grading	2029	0.59	4.74	27.8	0.06	3.27	1.58
4	Foundations	2029-2030	1.06	9.28	46.3	0.13	1.77	0.61
5	Trenching/Undergrounds	2030	0.21	3.41	3.2	0.04	1.01	0.30
6	Equipment, Structural Steel & Building Erection, Piping	2029-2030	0.97	7.31	40.2	0.12	0.88	0.33
7	Electrical & Instrumentation	2030-2031	0.69	3.53	30.8	0.11	0.50	0.21
8	Paving	2031	0.63	0.29	4.1	0.01	0.17	0.05
9	Painting/Insulation	2031	4.95	0.01	0.1	0.01	0.03	0.01
10	Commissioning/Startup and Testing	2031	0.68	3.5	30.7	0.11	0.50	0.21
12	Decommissioning Demolition	2032	0.33	3.64	12.6	0.04	0.58	0.17
Proposed Project Single Phase Maximum			**4.95**	**9.31**	**46.3**	**0.13**	**3.90**	**1.58**

Notes:

1. Emissions include offroad construction equipment and onroad vehicles (hauling, vendors, workers).
2. Construction/Demolition daily emissions calculated for maximum 9 hours per day operation for all offroad equipment running simultaneously (winter peak NO_x).
3. This analysis assumed construction would start in May 2029. Current expectation is that construction will start in July or August 2029. The analysis was not revised because the earlier start date is conservative.
4. Total PM_{10}/$PM_{2.5}$ consists of fugitive dust plus engine exhaust and includes application of Project BMPs.
5. No offroad equipment are expected to be used for Phase 11, Site Restoration, so this phase is not included.

The construction/demolition schedule provided in Table 2-6 indicated that some of the phases could overlap. Even though it is unlikely that the peak day for a given phase would occur on the exact same peak day for another phase, where there was potential for overlap of the phase, the peak day emissions were added together to provide the potential peak daily emissions for ROC and NO_x. The results of this potential phase overlap peak daily emissions and significance evaluation is shown in Table 2-10, where only phases with potential overlap are shown. As shown in Table 2-10, the peak daily ROC emissions could occur during the overlap of Phases 8, 9, and 10, Paving + Painting/Insulation + Commissioning/Startup and Testing. The peak daily NO_x emissions could occur during the overlap of Phases 4, 5, and 6, Foundations + Trenching/Undergrounds + Equipment, Structural Steel & Building Erection, Piping. These emissions were compared to the VCAPCD Guidelines significance thresholds shown in Table 2-1. Only ROC and NO_x peak daily emissions are shown in Table 2-10 because the VCAPCD Guidelines (2003) do not include significance thresholds for emissions of the other criteria pollutants as described in Section 2.1.1.1. Even with the conservative assumption that the peak daily emissions for multiple phases could occur on the same day, the peak day emissions shown in Table 2-10

remain below the significance thresholds for ROC and NO_x during construction/demolition of the proposed Project.

Table 2-10: Significance Evaluation for Estimated Peak Daily ROC and NOx Emissions During Potential Construction/Demolition Phase Overlaps

Construction/Demolition Peak Day Emissions with Potential Phase Timeline Overlaps		Year	Emissions[1] (lbs/day)	
			ROC	NO_x
1+2	Subsurface Exploration + Existing Project Site Demo	2029	1.4	15.6
4+5+6	Foundations + Trenching/Undergrounds + Equipment, Structural Steel & Building Erection, and Piping	2029-2030	2.2	20.0
6+7	Equipment, Structural Steel & Building Erection, Piping + Electrical & Instrumentation	2030	1.7	10.8
8+9+10	Paving + Painting/Insulation + Commissioning/Startup and Testing	2031	6.3	3.8
Project Construction/Demolition Overlapping Phases Maximum			**6.3**	**20.0**
		Threshold	**25**	**25**
		Significant?	**No**	**No**

Notes:

1. Emissions reflect the peak daily phase emissions totals from Table 2-9 combined for the phases indicated.

CalEEMod outputs (Attachment A.1) present the emissions results as unmitigated and mitigated to allow for additional emissions controls to be selected in the model. As discussed in Section 5.3.7, Avoidance and Minimization Measures, of this PEA, the CPUC recommended measures and additional fugitive dust BMPs from the VCAPCD Guidelines will be employed to minimize fugitive dust from the Project. Because these measures are incorporated as Project BMPs, the peak day mitigated and unmitigated emissions are the same.

Furthermore, the construction equipment will either be electric or have engines that meet EPA Tier 4 Final emission standards. As shown in Table 2-10 above, emissions of NO_x and ROC associated with the construction and demolition phases of the Project would be below the significance threshold of 25 pounds per day for both pollutants. The VCAPCD Guidelines do not provide significance thresholds for other criteria pollutants.

2.2.2 Operational Emissions Impact Analysis

The Project consists of the replacement of the three existing 1,100-HP natural gas compressors with two replacement 1,900-HP natural gas compressors and two new nominal up to 2,500-HP EDCs. The existing 68-HP diesel emergency generator will be replaced with a new 840-HP natural gas standby generator. The number of workers operating the VCS will increase from three to four due to the Project.

Stationary source project emissions were estimated on a maximum potential to emit (PTE) basis that assumes continuous operation of the two new 1,900-HP natural gas compressors

for consistency with the air permitting. The PTE for the new standby generator is based on the maximum permitted operation of 1,000 hours per year.

Baseline emissions were estimated for the three existing 1,100-HP natural gas compressors and emergency generator using their 2021 and 2022 fuel usage.

Emissions of criteria pollutants from the small number of vehicles to be used by VCS employees during operations were estimated using EMFAC2021 version 1.0.2 (CARB 2022) and AP-42 fugitive dust emissions estimation techniques for paved roads (EPA 2011). The proposed Project operational vehicle miles traveled (VMT) analysis assumes four employees commuting daily in separate light-duty vehicles for a one-way distance of 32 miles within Ventura County. Baseline vehicle use assumed three worker vehicles. The emissions calculations for the operational worker vehicles are provided in Attachment B.

Table 2-11 shows the baseline emissions, which are the average of the last 2 years of actual emissions (from 2021 and 2022) for the three existing natural gas compressors and emergency generator, as well as emissions from three worker vehicles. Table 2-12 shows the proposed Project annual emissions based on the PTE of the replacement units (two new natural gas compressors and one new standby generator) plus four worker vehicles (one more than in the baseline). The Project net emissions increase (NEI) during operation was calculated based on the difference between the PTE for the new engines and the historical actual emissions (HAE) for the existing engines as presented in Table 2-13. Additional details on these emission calculations are provided in Attachment B.

Table 2-11: Baseline Criteria Pollutant Emissions During 2021-2022 (tons/year)

Pollutant	Natural Gas Compressor Engines	Emergency Generator	Worker Vehicles	Total Baseline Emissions
ROC	0.47	0.0002	0.0025	0.48
NO_x	2.88	0.004	0.002	2.89
$PM_{10}/PM_{2.5}$	0.44	0.0004	0.008	0.45
CO	0.60	0.005	0.036	0.64
SO_x	0.03	0.00001	0.0001	0.03

Table 2-12: Proposed Project Criteria Pollutant Potential to Emit (tons/year)

Pollutant	Natural Gas Compressor Engines	Standby Generator	Worker Vehicles	Total Project Potential Emissions
ROC	5.50	0.14	0.0033	5.64
NO_x	5.50	0.14	0.003	5.64
$PM_{10}/PM_{2.5}$	1.24	0.04	0.016	1.29
CO	22.00	0.56	0.048	22.56
SO_x	0.08	0.002	0.0002	0.08

Table 2-13: Proposed Project Criteria Pollutant Net Emissions (tons/year)

Pollutant	Total Project Potential Emissions	Total Baseline Actual Emissions	Net Project Emissions (PTE – Baseline)
ROC	5.64	0.48	5.16
NO_x	5.64	2.89	2.75
$PM_{10}/PM_{2.5}$	1.29	0.45	0.84
CO	22.60	0.64	21.95
SO_x	0.08	0.03	0.06

As noted in Section 2.1.1, the VCAPCD Guidelines require that only unpermitted source emissions associated with the operational Project be compared to the significance thresholds. In addition to the four worker vehicles (annual emissions are shown in Table 2-12), PEA Section 3.2.2.1, Proposed Site Improvements, lists several storage tanks that would be installed including 1 engine oil, 1 waste oil, and 3 oily waste storage tanks. These storage tanks (or drums, see PEA Table 3-1, Dimensions of Structures) are considered ancillary equipment and would not be required to obtain a permit from VCAPCD. Used oil has a very low vapor pressure and tank throughput would be low; hence, ROC emissions from these tanks would be negligible. When the emissions are compared to the significance thresholds in Table 2-14, the operational emissions are less than significant.

Table 2-14: Maximum Daily Operational Non-Permitted Sources Emissions Summary and Evaluation

Emission Source	NO_x (lbs/day)	ROC (lbs/day)
Non-stationary source emissions [1]	negligible	negligible
Non-stationary source threshold [2]	25	25
Significant?	No	No

Notes:

1. Unpermitted sources include worker vehicles (see Table 2-12) and ancillary storage tanks, i.e., engine oil, oil waste, and oily waste storage drums, which would have very low emissions of ROC.
2. VCAPCD Guidelines (2003).

Per the VCAPCD and OPR CEQA Guidelines, a project is significant if it results in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment of an applicable NAAQS or CAAQS.

VCAPCD is designated attainment for CO, SO_x and $PM_{2.5}$ but is nonattainment of the CAAQS for PM_{10}. Based on the VCAPCD Guidelines, since Ventura County is nonattainment for PM_{10}, an AQIA was conducted to assess the significance of the Project PM_{10} emissions, as described in the next section.

2.3 Proposed Project Air Quality Impact Analyses

In addition to the emissions analyses, the VCAPCD Guidelines indicate that an AQIA should be performed to ensure that there are no localized impacts that would cause or contribute to an exceedance of a State or national AAQS for nonattainment pollutants. Emissions which cause or contribute to an exceedance of an applicable standard would be considered to have a significant impact.

Per the VCAPCD Guidelines, and as described in the previous sections, an AQIA was prepared to demonstrate the significance of the Project PM_{10} operational emissions.

2.3.1 Ambient Air Quality Impacts from Project Operation

The purpose of the AQIA is to evaluate whether criteria pollutant emissions resulting from the proposed Project will cause or contribute significantly to an exceedance of the NAAQS or CAAQS. The United States Environmental Protection Agency's (EPA's) guideline **A**merican Meteorological Society/**E**PA **R**egulatory **Mod**el (AERMOD) was used to simulate the atmospheric transport and dispersion of airborne pollutants and to quantify the maximum expected ground level concentrations (GLCs) from Project emissions.

The modeling of PM_{10} emissions during operations analyzed the 24-hour and annual concentrations from the PTE of the new natural gas compressors and standby generator. The modeling input parameters and results are provided in Attachment C.

The modeling results for PM_{10} are summarized in Table 2-15. Since the background PM_{10} concentrations are greater than the CAAQS, the modeled concentrations were compared to the SILs as described above. The PM_{10} concentrations predicted by the model from onsite emissions sources are less than these significance levels. Therefore, the proposed Project will have a less than significant adverse impact to air quality based on modeling.

Table 2-15: Proposed Project PM_{10} AQIA Results

Pollutant	Averaging Time	Modeled Concentration ($\mu g/m^3$)	Significant Impact Level[1] ($\mu g/m^3$)	Exceed SIL?
PM_{10}	24-Hour	3.92	5.0	No
	Annual	0.37	1.0	No

Note:

1. SJVAPCD Policy APR 1925 (2014)

2.4 Proposed Project Health Risk Assessment

Both a construction HRA and operations HRA were conducted. The construction and operations HRAs were conducted in accordance with VCAPCD guidance following the California Office of Environmental Health Hazard Assessment (OEHHA) Air Toxics Hot Spots Program Guidance Manual (2015). The HRAs used refined air dispersion analyses and health risk modeling.

AERMOD was used to estimate the GLCs. The Hotspots Analysis and Reporting Program, Version 2 (HARP2) software was used to perform the calculations for this step for comparison to the current VCAPCD risk threshold values.

For the HRAs, AERMOD was run with all sources emitting unit emissions [1 gram per second (g/s)] to obtain the X/Q (i.e., the relative concentration given as the effluent concentration divided by the source strength at a given distance and direction from the source) values that are necessary for input into HARP2. The health risk calculations were performed using the HARP2 Air Dispersion Modeling and Risk Tool (ADMRT). The X/Q values that were determined for each source using AERMOD were imported into HARP2 and used in conjunction with hourly and annual emissions to determine the GLCs for each pollutant. The GLCs were then used to estimate the long-term cancer health risk to an individual and non-cancer chronic and acute health indices.

The Maximally Exposed Individual Resident (MEIR), Maximally Exposed Individual Worker (MEIW), and maximum impact at a sensitive receptor were calculated for cancer risk and non-cancer chronic and acute health indices.

2.4.1 Health Risk Assessment for Project Construction

The purpose of the construction HRA is to evaluate the potential health risks associated with the Project-related construction emissions. During construction and demolition, the use of diesel-fueled equipment will emit DPM. DPM emissions are derived from the CalEEMod runs in Attachment A.1, where DPM is conservatively assumed to be 100% of the exhaust PM_{10} emissions.

Since the construction and demolition activities will last approximately 3 years, cancer risk was estimated for a 3-year period using the average annual DPM emissions over the entire construction and demolition period for both residential and off-site workers.

The construction HRA input parameters and results are provided in Attachment D. The construction HRA results are summarized in Table 2-16. The results show that, for all receptor types and locations, the predicted health risks are less than the VCAPCD cancer significance threshold and well below the non-cancer thresholds. The cancer risk at the MEIR occurs at a residence bordering the VCS's northeastern fenceline.

The HRA demonstrates that health risks related to construction and demolition activities for the proposed Project are less than significant.

Table 2-16: Construction/Demolition Health Risk Assessment Results

Health Risk	MEIR	Maximum Sensitive Receptor	MEIW	VCAPCD Guidelines Threshold	Significant?
Cancer Risk (Per Million)	2.30	1.49	0.31	10	No
Chronic Hazard Index (HIC)	0.001	0.001	0.002	1	No

Note:

1. Because DPM does not have an acute risk, an Acute Hazard Index (HIA) was not modeled for construction.

2.4.2 Health Risk Assessment for Project Operation

The operations HRA modeling conservatively analyzed the total post-Project TAC emissions based on the proposed Project's PTE from the new natural gas compressors and standby generator, rather than the delta between pre-Project and post-Project TAC emissions. Additional information on the TAC emission calculations is provided in Attachment B, and the input parameters and detailed results for the operational HRA are provided in Attachment E for each health risk and at each receptor type, broken down by pollutant and source. The results of the HRA for the proposed Project operational TAC emissions are summarized in Table 2-17.

The results show that, for all receptor types and locations, the predicted health risks are less than the VCAPCD cancer significance threshold and well below the non-cancer thresholds. For cancer risk, the MEIR occurs past the southern end of the facility.

The results show that the predicted health risks are below the VCAPCD health risk thresholds; thus, impacts from the Project TAC emissions during VCS operation are less than significant.

Table 2-17: Operation Health Risk Assessment Results

Health Risk	MEIR	Maximum Sensitive Receptor	MEIW	VCAPCD Guidelines Threshold	Significant?
Cancer Risk (In One Million)	2.81	0.54	1.25	10	No
Chronic Hazard Index (HIC)	0.009	0.002	0.01 (annual) 0.05 (8-hour)	1	No
Acute Hazard Index (HIA)	0.03	0.03	0.02	1	No

3.0 GREENHOUSE GAS EMISSIONS

3.1 GHG Emissions Significance Criteria

The VCAPCD has not adopted a mass emissions threshold for GHGs. Other air districts such as the SCAQMD use a threshold of 10,000 metric tons (MT) of carbon dioxide equivalents (CO_2e) per year as the significance criteria for industrial facilities (SCAQMD 2023). This significance threshold is proposed for this Project.

3.2 GHG Emissions Analysis for the Proposed Project

GHG emissions are estimated for both construction/demolition and operations for the proposed Project. Construction GHG emissions are typically amortized over the life of the project (typically 30 years) and added to the annual operational GHG emissions for evaluation against the significance threshold to determine significance. Additional details on the emissions calculations are provided in Attachment F.

3.2.1 GHG Emissions from Project Construction/Demolition

During construction, GHGs – primarily carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), collectively reported as CO_2e – are directly emitted from mobile sources such as onroad vehicles and offroad construction equipment. Direct onsite and off-site GHG emissions were estimated for proposed Project construction activities using CalEEMod. CalEEMod also includes a calculation of GHG emissions related to refrigerants and ozone-depleting substances (R/ODS).

Table 3-1 shows a breakdown of proposed Project construction GHG emissions over the roughly 25-month main construction period (2029-2031) and 3-month demolition period (2032). The CalEEMod output file for GHG emissions can be found in Attachment A.2. Table 3-1 also aggregates the CO_2e emissions for all construction/demolition and determines the 30-year amortization amount for the operational GHG netting analysis. The maximum annual GHG emissions from construction are 2,731 MT in 2030. Together, construction and demolition emissions amortized over 30 years are 198 MT CO_2e per year.

Table 3-1: Construction and Demolition GHG Emissions by Year[1] (2029-2032)

GHGs	2029 (MT)	2030 (MT)	2031 (MT)	2032 (MT)	Total (MT)	30-Year (MT/yr)
CO_2	2,549	2,677	580	4	–	–
CH_4	0.06	0.08	0.02	0.00	–	–
N_2O	0.25	0.17	0.01	0.00	–	–
R/ODS	1.25	0.84	0.04	0.00	–	–
CO_2e	**2,625**	**2,731**	**583**	**4**	**5,943**	**198**

Notes:

1. This analysis assumed construction would start in May 2029. Current expectation is that construction will start in July or August 2029. The analysis was not revised because the earlier start date is conservative.

3.2.2 GHG Emissions from Project Operation

The baseline GHG emissions for the proposed Project are shown in Table 3-2. The baseline is based on fuel use by the existing equipment to be replaced (three natural gas compressors

and an emergency generator), plus up to three operations workers commuting, and indirect GHG emissions from facility-wide electric power usage. Baseline emissions were estimated for the three existing 1,100-HP engine compressors and emergency generator using the average of their 2021 and 2022 fuel usage. Baseline facility-wide electricity usage was based on the average of 2021 and 2022 electricity purchased for the VCS site.

Emissions of GHGs from the limited number of onroad vehicles to be used by VCS employees during operations were estimated using EMFAC2021 version 1.0.2 (CARB 2022). Because EMFAC2021 outputs the GHGs as CO_2, CH_4, and N_2O, the Intergovernmental Panel on Climate Change (IPCC) global warming potentials (GWPs) were used to determine CO_2e from these mobile sources (CARB 2016). The operational baseline VMT analysis assumes three workers commuting daily in separate light-duty vehicles for a one-way distance of 32 miles within Ventura County, which is an average distance to communities within the County. Project worker vehicle emissions are based on four workers commuting, a net increase of one worker.

Table 3-2: VCS Baseline GHG Emissions (MT/year)

GHGs	Existing (3) Natural Gas Compressors	Existing Emergency Generator	Worker Vehicles	Indirect Electric Power	Total Baseline Emissions[1]
CO_2	4,845	0.6	50.5	92.0	4,988
CH_4	0.09	0.00003	0.0004	0.012	0.103
N_2O	0.01	0.00001	0.0008	0.001	0.011
CO_2e	**4,850**	**1**	**51**	**93**	**4,994**

Note:

1. Baseline emissions based on HAE for 2021-2022 for natural gas compressors and standby generator, three operations workers, and electricity purchased during these years.

The projected emissions of GHGs from the replacement combustion units (two new natural gas compressors and new standby generator) are provided in Table 3-3, along with worker commuting and indirect GHG emissions for the EDCs and other electric power usage. Stationary source GHG emissions for the proposed Project were estimated based on the projected annual usage of the two new 1,900-HP engine compressors, the new standby generator, one additional operations worker, and the electrical usage for the new EDCs.

As noted in Section 3.1, Project Overview (footnote 1), of this PEA, as a result of not having electric compressors selected at this time, SoCalGas has assumed that the two EDCs will each be 2,500 HP in the PEA for the purpose of environmental review. Upon completion of engineering related to the EDCs, the horsepower utilized may be lower than, but will not be higher than the 2,500 HP reviewed in this PEA. However, as discussed in Section 5.6, Energy, it was decided to analyze two scenarios for energy impacts, where Case 1 is based on two 2,500 HP EDCs and Case 2 is based on two 2,000 HP EDCs, both cases along with the two 1,900 HP natural gas compressors. These cases represent the projected maximum electricity use and maximum natural gas use, respectively.

The GHG emissions for both cases were estimated for the Project operations and are shown in Table 3-3. Both Cases 1 and 2 show a decrease in natural gas usage and an increase in electricity usage as compared to the baseline.

GHG emissions can occur from venting of natural gas to the blowdown stack during maintenance activities. These activities occur infrequently and typically consist of venting the residual amount of gas in a length of pipe from the equipment that is being serviced and the blowdown stack has a discharge scrubber. The Project will implement a vapor capture and recovery system that will prevent 85-100% of the natural gas from being released to the atmosphere during venting. Thus, the Project is expected to result in a reduction in GHG emissions associated with venting compared to the existing facility.

To meet the CARB Oil and Gas Regulation, the VCS has implemented a leak detection and reporting (LDAR) system to minimize natural gas leaks from the equipment components, such as flanges, valves, seals, etc., which lead to CH_4 emissions. The combination of the LDAR system and newer technologies for the equipment components will ensure that Project GHG emissions are similar or reduced from baseline conditions.

Table 3-3: Projected Annual Project GHG Emissions (MT/year)

GHGs	New (2) Natural Gas Compressors[1, 2]		New Standby Generator	Worker Vehicles[3]	Indirect Electric Power[4, 2]		Total Project Emissions[2]	
	Case 1	Case 2			Case 1	Case 2	Case 1	Case 2
CO_2	1,723.0	3071.1	79.3	67.4	2526.3	2208.7	4346.2	5376.8
CH_4	0.0325	0.0579	0.0015	0.0006	0.32	0.28	0.35	0.34
N_2O	0.0032	0.0058	0.0001	0.0011	0.04	0.03	0.04	0.04
CO_2e	**1,725**	**3,074**	**79**	**68**	**2,546**	**2,226**	**4,368**	**5,397**

Notes:

1. GHG emissions are based on a conservative projected usage of the natural gas compressors based on historic flow rates and accounting for a drop in the local production rate. It is assumed that the trend of the monthly demand for the new plant will continue to remain the same as the existing plant (lower demand in winter and higher demand in summer).
2. Case 1 is two 2,500 HP EDCs, which would have slightly lower natural gas use and higher electricity use. Case 2 is two 2,000 HP EDCs, which would have slightly higher natural gas use and lower electricity use.
3. Worker vehicle emissions based on 4 workers (1 more than the baseline) commuting from within Ventura County in separate vehicles (32 miles each one-way trip).
4. Indirect emissions based on electric power for projected use of new EDCs as well as station utilities and auxiliaries. The analysis is based on the EDCs turned on first and turned off last from an operational standpoint.

As shown in Table 3-3, Case 1 would have slightly lower natural gas use and higher electricity use than Case 2 since it includes the two larger 2,500 HP EDCs. Case 2 would have slightly higher natural gas use and lower electricity use than Case 1 since it includes two smaller 2,000 HP EDCs. Because GHG emissions are higher from natural gas use than from indirect electricity use, Case 2 would have slightly higher GHG emissions.

3.2.3 Determination of GHG Emissions Significance

Table 3-4 provides a comparison of the aggregated net GHG emissions for the proposed Project to the significance threshold. The net GHG emissions reflect the direct and indirect GHG emissions from the proposed Project (Table 3-3) plus the amortized GHG construction emissions (Table 3-1) minus the baseline GHG emissions (Table 3-2).

As shown in Table 3-4 the aggregated GHG net emissions show a small decrease in GHG emissions associated with the Case 1 Project and a small increase for the Case 2 Project

compared to the baseline. This result shows that the projected future operation of the Project will be similar to the operation of the VCS in the future. Further, the slightly larger EDC assumed in Case 1 will lead to a reduction in GHG emissions. In both cases, the net emissions decrease or increase is below the CO_2e significance threshold of 10,000 MT per year, and thus, the proposed Project will have a less than significant impact.

Additional details on these emission calculations are provided in Attachment F.

Table 3-4: Proposed Project GHG Significance Evaluation

Item	Annual CO_2e Net Emissions (MT/year)	
	Case 1	**Case 2**
Total Direct Project Net Emissions (Project-Baseline)	(3,042)	(1,693)
Total Indirect Project Net Emissions (Project-Baseline)	2,453	2,133
Amortized Construction Emissions (30 years)	198	198
Total Operation Net Emissions + Construction	**(391)**	**639**
Significance Threshold	**10,000**	**10,000**
Total Project Net Emissions Significant?	**No**	**No**
Mitigation Required	**None**	**None**

4.0 REFERENCES

Association of Environmental Professionals (AEP), 2023. 2023 CEQA Statute & Guidelines. Website (https://www.califaep.org/statute_and_guidelines.php) accessed February 10, 2023.

California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. Website (https://ww3.arb.ca.gov/cc/scopingplan/scopingplan.htm) accessed February 10, 2023.

California Air Resources Board (CARB). 2016. GHG Global Warming Potentials. Website (https://ww2.arb.ca.gov/ghg-gwps#:~:text=CARB%20uses%202007%20IPCC%20AR4%20GWPs%20for%20the,AR4%20GWPs%20are%20included%20in%20the%20table%20above.) accessed February 10, 2023.

California Air Pollution Control Officers Association (CAPCOA). 2022. California Emissions Estimation Model® (CalEEMod). Version 2022.1. Website (http://www.caleemod.com/) accessed February 10, 2023.

California Independent System Operator (CAISO). 2023. "Today's Outlook/Capacity/Demand." Website (https://www.caiso.com/TodaysOutlook/Pages/index.html) accessed March 3, 2023.

California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments. February. Website (https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0) accessed February 10, 2023.

California Office of Planning and Research (OPR). 2022. Appendix G Checklist Form. Website (https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf) accessed March 3, 2023.

California Public Utilities Commission (CPUC). 2019. Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments. Version 1.0. November 2019. Website (https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/c/6442463239-ceqa-pre-filing-guidelines-pea-checklist-nov-2019.pdf) accessed March 3, 2023.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2014. APR-1925 Policy for District Rule 2201 AAQA Modeling. Website (https://www.valleyair.org/policies_per/policies_per_idx.htm) accessed February 10, 2023.

South Coast Air Quality Management District (SCAQMD). 2023. Air Quality Significance Thresholds. Website (http://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25) accessed March 27, 2023.

Southern California Edison (SCE). 2018. Fact Sheet on SCE's Green Rate and Community Renewables Programs. Website (https://www.sce.com/sites/default/files/inline-files/G18-013%2BGreen%2BRate%2BBusiness%2BFact%2Bsheet-AA_0.pdf) assessed February 10, 2023.

Southern California Edison (SCE). 2021. Power Content Label. Website (https://www.sce.com/sites/default/files/custom-files/Web%20files/2021%20Power%20Content%20Label.pdf) accessed February 17, 2023.

Southern California Edison (SCE). 2019. "Southern California Edison's Service Area." Website (https://newsroom.edison.com/internal_redirect/cms.ipressroom.com.s3.amazonaws.com/166/files/20193/SCE%20Service%20Area%20Fact%20Sheet_Ver2_04252019.pdf#:~:text=Southern%20California%20Edison%20is%20one%20of%20the%20nation%E2%80%99s,15%20million%20people%20through%205%20million%20customer%20accounts) accessed March 3, 2023.

The Climate Registry (TCR). 2022. Default Emission Factors Document. Website (https://theclimateregistry.org/registries-resources/protocols/) accessed assessed February 10, 2023.

United States Energy Information Administration (EIA). 2021. Southern California Daily Energy Report. Website (https://www.eia.gov/special/disruptions/socal/summer/#dashboard) accessed February 10, 2023.

Ventura County Air Pollution Control District (VCAPCD). 2003. Ventura County Air Quality Assessment Guidelines. Website (http://www.vcapcd.org/pubs/Planning/VCAQGuidelines.pdf) accessed February 10, 2023.

ATTACHMENT A – CALEEMOD OUTPUTS

SCG-VCM Project Detailed Report

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1.1. Basic Project Information

Data Field	Value
Project Name	SCG-VCM Project
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	1555 N Olive St, Ventura, CA 93001, USA
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3406
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Heavy Industry	5.46	1000sqft	0.13	5,459	0.00	—	—	—
General Heavy Industry	10.5	1000sqft	0.24	10,458	0.00	—	—	—

General Heavy Industry	2.02	1000sqft	0.05	2,016	0.00	—	—	—
General Heavy Industry	0.44	1000sqft	0.01	442	0.00	—	—	—
General Office Building	4.64	1000sqft	0.11	4,641	0.00	—	—	—
Other Asphalt Surfaces	344	1000sqft	7.89	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.90	15.6	70.9	0.21	0.28	4.53	4.81	0.28	1.47	1.58	—	21,404	21,404	0.83	0.91	10.4	21,530
Mit.	5.90	15.6	70.9	0.21	0.28	4.53	4.81	0.28	1.47	1.58	—	21,404	21,404	0.83	0.91	10.4	21,530
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.17	19.7	89.2	0.26	0.38	3.26	3.63	0.38	0.85	1.22	—	28,721	28,721	1.00	1.19	0.37	29,101
Mit.	2.17	19.7	89.2	0.26	0.38	3.26	3.63	0.38	0.85	1.22	—	28,721	28,721	1.00	1.19	0.37	29,101
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.85	6.29	36.3	0.11	0.14	0.95	1.06	0.14	0.27	0.38	—	11,391	11,391	0.42	0.31	1.63	11,490
Mit.	0.85	6.29	36.3	0.11	0.14	0.95	1.06	0.14	0.27	0.38	—	11,391	11,391	0.42	0.31	1.63	11,490
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	1.15	6.63	0.02	0.03	0.17	0.19	0.03	0.05	0.07	—	1,886	1,886	0.07	0.05	0.27	1,902
Mit.	0.16	1.15	6.63	0.02	0.03	0.17	0.19	0.03	0.05	0.07	—	1,886	1,886	0.07	0.05	0.27	1,902
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.35	15.6	63.7	0.14	0.28	4.53	4.81	0.28	1.47	1.58	—	16,521	16,521	0.55	0.91	10.4	16,817
2030	1.65	10.7	70.9	0.21	0.26	1.69	1.86	0.26	0.43	0.61	—	21,404	21,404	0.83	0.53	6.78	21,530
2031	5.90	3.47	30.7	0.10	0.12	0.48	0.54	0.12	0.12	0.21	—	10,006	10,006	0.39	0.14	1.33	10,058
2032	—	—	—	—	—	—	—	—	—	—	—	2.82	2.82	< 0.005	< 0.005	—	2.83

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	2.01	16.6	86.4	0.24	0.34	2.30	2.64	0.34	0.60	0.94	—	25,925	25,925	0.93	0.88	0.28	26,213
2030	2.17	19.7	89.2	0.26	0.38	3.26	3.63	0.38	0.85	1.22	—	28,721	28,721	1.00	1.19	0.37	29,101
2031	0.68	3.50	30.7	0.10	0.12	0.39	0.51	0.12	0.10	0.21	—	9,996	9,996	0.39	0.15	0.03	10,050
2032	0.32	3.88	12.6	0.04	0.05	0.60	0.65	0.05	0.13	0.18	—	3,951	3,951	0.14	0.13	0.03	3,994
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.62	5.39	27.8	0.07	0.11	0.95	1.06	0.11	0.27	0.38	—	8,021	8,021	0.28	0.31	1.63	8,123
2030	0.85	6.29	36.3	0.11	0.14	0.84	0.98	0.14	0.21	0.36	—	11,391	11,391	0.42	0.29	1.44	11,490
2031	0.85	1.18	10.2	0.04	0.04	0.18	0.22	0.04	0.04	0.08	—	3,501	3,501	0.14	0.06	0.24	3,522
2032	0.06	0.69	2.25	0.01	0.01	0.11	0.12	0.01	0.02	0.03	—	704	704	0.03	0.02	0.10	711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.11	0.98	5.08	0.01	0.02	0.17	0.19	0.02	0.05	0.07	—	1,328	1,328	0.05	0.05	0.27	1,345
2030	0.16	1.15	6.63	0.02	0.03	0.15	0.18	0.03	0.04	0.06	—	1,886	1,886	0.07	0.05	0.24	1,902
2031	0.15	0.22	1.86	0.01	0.01	0.03	0.04	0.01	0.01	0.02	—	580	580	0.02	0.01	0.04	583
2032	0.01	0.13	0.41	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	117	117	< 0.005	< 0.005	0.02	118

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.35	15.6	63.7	0.14	0.28	4.53	4.81	0.28	1.47	1.58	—	16,521	16,521	0.55	0.91	10.4	16,817
2030	1.65	10.7	70.9	0.21	0.26	1.69	1.86	0.26	0.43	0.61	—	21,404	21,404	0.83	0.53	6.78	21,530
2031	5.90	3.47	30.7	0.10	0.12	0.48	0.54	0.12	0.12	0.21	—	10,006	10,006	0.39	0.14	1.33	10,058
2032	—	—	—	—	—	—	—	—	—	—	—	2.82	2.82	< 0.005	< 0.005	—	2.83

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	2.01	16.6	86.4	0.24	0.34	2.30	2.64	0.34	0.60	0.94	—	25,925	25,925	0.93	0.88	0.28	26,213
2030	2.17	19.7	89.2	0.26	0.38	3.26	3.63	0.38	0.85	1.22	—	28,721	28,721	1.00	1.19	0.37	29,101
2031	0.68	3.50	30.7	0.10	0.12	0.39	0.51	0.12	0.10	0.21	—	9,996	9,996	0.39	0.15	0.03	10,050
2032	0.32	3.88	12.6	0.04	0.05	0.60	0.65	0.05	0.13	0.18	—	3,951	3,951	0.14	0.13	0.03	3,994
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.62	5.39	27.8	0.07	0.11	0.95	1.06	0.11	0.27	0.38	—	8,021	8,021	0.28	0.31	1.63	8,123
2030	0.85	6.29	36.3	0.11	0.14	0.84	0.98	0.14	0.21	0.36	—	11,391	11,391	0.42	0.29	1.44	11,490
2031	0.85	1.18	10.2	0.04	0.04	0.18	0.22	0.04	0.04	0.08	—	3,501	3,501	0.14	0.06	0.24	3,522
2032	0.06	0.69	2.25	0.01	0.01	0.11	0.12	0.01	0.02	0.03	—	704	704	0.03	0.02	0.10	711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.11	0.98	5.08	0.01	0.02	0.17	0.19	0.02	0.05	0.07	—	1,328	1,328	0.05	0.05	0.27	1,345
2030	0.16	1.15	6.63	0.02	0.03	0.15	0.18	0.03	0.04	0.06	—	1,886	1,886	0.07	0.05	0.24	1,902
2031	0.15	0.22	1.86	0.01	0.01	0.03	0.04	0.01	0.01	0.02	—	580	580	0.02	0.01	0.04	583
2032	0.01	0.13	0.41	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	117	117	< 0.005	< 0.005	0.02	118

3. Construction Emissions Details

3.1. Demolition (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.46	5.35	24.0	0.04	0.08	—	0.08	0.08	—	0.08	—	4,394	4,394	0.18	0.04	—	4,409
Demolition	—	—	—	—	—	2.69	2.69	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.16	0.72	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	132	132	0.01	< 0.005	—	133
Demolition	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.64	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.43	152
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.05	3.67	0.98	0.02	0.04	0.86	0.90	0.04	0.24	0.28	—	2,988	2,988	0.06	0.47	5.46	3,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.34	4.34	< 0.005	< 0.005	0.01	4.40
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.98
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.07	94.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.16
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.01	15.6

3.2. Demolition (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	5.35	24.0	0.04	0.08	—	0.08	0.08	—	0.08	—	4,394	4,394	0.18	0.04	—	4,409
Demolition	—	—	—	—	—	2.69	2.69	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.16	0.72	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	132	132	0.01	< 0.005	—	133
Demolition	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.64	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.43	152
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.05	3.67	0.98	0.02	0.04	0.86	0.90	0.04	0.24	0.28	—	2,988	2,988	0.06	0.47	5.46	3,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.34	4.34	< 0.005	< 0.005	0.01	4.40
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.98
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.07	94.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.16
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.01	15.6

3.3. Demolition (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.09	11.8	0.03	0.04	—	0.04	0.04	—	0.04	—	3,130	3,130	0.13	0.03	—	3,141
Demolition	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.55	2.09	0.01	0.01	—	0.01	0.01	—	0.01	—	557	557	0.02	< 0.005	—	559
Demolition	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	92.3	92.3	< 0.005	< 0.005	—	92.6
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.65	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	0.01	0.01	176
Vendor	0.01	0.50	0.18	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	451	451	0.01	0.07	0.02	471
Hauling	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	194	194	< 0.005	0.03	0.01	203
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	0.03	31.6
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.05	83.9
Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.5	34.5	< 0.005	0.01	0.02	36.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.23
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.01	13.9
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.72	5.72	< 0.005	< 0.005	< 0.005	5.99

3.4. Demolition (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.09	11.8	0.03	0.04	—	0.04	0.04	—	0.04	—	3,130	3,130	0.13	0.03	—	3,141

Demolitio	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.55	2.09	0.01	0.01	—	0.01	0.01	—	0.01	—	557	557	0.02	< 0.005	—	559
Demolitio n	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	92.3	92.3	< 0.005	< 0.005	—	92.6
Demolitio n	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.65	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	0.01	0.01	176
Vendor	0.01	0.50	0.18	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	451	451	0.01	0.07	0.02	471
Hauling	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	194	194	< 0.005	0.03	0.01	203
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	0.03	31.6
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.05	83.9

Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.5	34.5	< 0.005	0.01	0.02	36.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.23
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.01	13.9
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.72	5.72	< 0.005	< 0.005	< 0.005	5.99

3.5. Site Preparation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	4.12	36.7	0.06	0.13	—	0.13	0.13	—	0.13	—	6,660	6,660	0.27	0.05	—	6,683
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.52	4.62	0.01	0.02	—	0.02	0.02	—	0.02	—	839	839	0.03	0.01	—	842
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	139	139	0.01	< 0.005	—	139
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.55	193
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.02	1.91	0.43	0.01	0.02	0.49	0.52	0.02	0.14	0.16	—	1,694	1,694	0.03	0.27	3.13	1,778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.1	23.1	< 0.005	< 0.005	0.03	23.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.9	27.9	< 0.005	< 0.005	0.02	29.2
Hauling	< 0.005	0.25	0.05	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	213	213	< 0.005	0.03	0.17	224
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.82	3.82	< 0.005	< 0.005	< 0.005	3.88
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	< 0.005	4.83
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.3	35.3	< 0.005	0.01	0.03	37.1

3.6. Site Preparation (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	4.12	36.7	0.06	0.13	—	0.13	0.13	—	0.13	—	6,660	6,660	0.27	0.05	—	6,683
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.52	4.62	0.01	0.02	—	0.02	0.02	—	0.02	—	839	839	0.03	0.01	—	842
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	139	139	0.01	< 0.005	—	139

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.55	193
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.02	1.91	0.43	0.01	0.02	0.49	0.52	0.02	0.14	0.16	—	1,694	1,694	0.03	0.27	3.13	1,778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.1	23.1	< 0.005	< 0.005	0.03	23.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.9	27.9	< 0.005	< 0.005	0.02	29.2
Hauling	< 0.005	0.25	0.05	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	213	213	< 0.005	0.03	0.17	224
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.82	3.82	< 0.005	< 0.005	< 0.005	3.88
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	< 0.005	4.83
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.3	35.3	< 0.005	0.01	0.03	37.1

3.7. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.20	26.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,824	4,824	0.20	0.04	—	4,841
Dust From Material Movement	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	211	211	0.01	< 0.005	—	212
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.88	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.59	207
Vendor	0.01	0.31	0.10	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	277	277	< 0.005	0.04	0.53	290
Hauling	0.01	1.17	0.26	0.01	0.01	0.30	0.32	0.01	0.09	0.10	—	1,042	1,042	0.02	0.16	1.93	1,094
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.60	8.60	< 0.005	< 0.005	0.01	8.73
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.7	45.7	< 0.005	0.01	0.04	47.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.42	1.42	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.57	7.57	< 0.005	< 0.005	0.01	7.93

3.8. Grading (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.20	26.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,824	4,824	0.20	0.04	—	4,841

Dust From Material Movement	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	211	211	0.01	< 0.005	—	212
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.88	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.59	207
Vendor	0.01	0.31	0.10	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	277	277	< 0.005	0.04	0.53	290
Hauling	0.01	1.17	0.26	0.01	0.01	0.30	0.32	0.01	0.09	0.10	—	1,042	1,042	0.02	0.16	1.93	1,094

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.60	8.60	< 0.005	< 0.005	0.01	8.73
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	45.7	45.7	< 0.005	0.01	0.04	47.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.42	1.42	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.57	7.57	< 0.005	< 0.005	0.01	7.93

3.9. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.44	13.0	0.03	0.05	—	0.05	0.05	—	0.05	—	3,112	3,112	0.13	0.03	—	3,123
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.26	2.37	0.01	0.01	—	0.01	0.01	—	0.01	—	515	515	0.02	< 0.005	—	517
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.13	1.99	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	1.33	469
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.85	463
Hauling	0.04	3.67	0.82	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,257	3,257	0.05	0.52	6.02	3,418
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	1.89	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	442	442	0.01	0.02	0.03	448
Vendor	0.01	0.51	0.17	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.02	463
Hauling	0.04	3.80	0.83	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,258	3,258	0.05	0.52	0.16	3,413
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.17	135
Vendor	< 0.005	0.15	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	< 0.005	0.02	0.11	139
Hauling	0.01	1.14	0.25	0.01	0.01	0.28	0.30	0.01	0.08	0.09	—	975	975	0.02	0.15	0.78	1,023
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.03	22.4

Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.02	23.0
Hauling	< 0.005	0.21	0.04	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	161	161	< 0.005	0.03	0.13	169

3.10. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.44	13.0	0.03	0.05	—	0.05	0.05	—	0.05	—	3,112	3,112	0.13	0.03	—	3,123
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.26	2.37	0.01	0.01	—	0.01	0.01	—	0.01	—	515	515	0.02	< 0.005	—	517
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.13	1.99	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	1.33	469
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.85	463
Hauling	0.04	3.67	0.82	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,257	3,257	0.05	0.52	6.02	3,418
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	1.89	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	442	442	0.01	0.02	0.03	448
Vendor	0.01	0.51	0.17	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.02	463
Hauling	0.04	3.80	0.83	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,258	3,258	0.05	0.52	0.16	3,413
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.17	135
Vendor	< 0.005	0.15	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	< 0.005	0.02	0.11	139
Hauling	0.01	1.14	0.25	0.01	0.01	0.28	0.30	0.01	0.08	0.09	—	975	975	0.02	0.15	0.78	1,023
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.03	22.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.02	23.0
Hauling	< 0.005	0.21	0.04	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	161	161	< 0.005	0.03	0.13	169

3.11. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.74	6.70	0.02	0.02	—	0.02	0.02	—	0.02	—	1,607	1,607	0.07	0.01	—	1,612
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	266	266	0.01	< 0.005	—	267
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.15	1.77	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	434	434	0.01	0.02	0.03	440
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.04	3.63	0.83	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,163	3,163	0.05	0.49	0.14	3,311
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.27	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.6	67.6	< 0.005	< 0.005	0.08	68.6
Vendor	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	66.4	66.4	< 0.005	0.01	0.05	69.3
Hauling	0.01	0.56	0.13	< 0.005	0.01	0.15	0.15	0.01	0.04	0.05	—	489	489	0.01	0.08	0.37	512

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.01	11.5
Hauling	< 0.005	0.10	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	81.0	81.0	< 0.005	0.01	0.06	84.8

3.12. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.74	6.70	0.02	0.02	—	0.02	0.02	—	0.02	—	1,607	1,607	0.07	0.01	—	1,612
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	266	266	0.01	< 0.005	—	267
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.15	1.77	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	434	434	0.01	0.02	0.03	440
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.04	3.63	0.83	0.02	0.05	0.95	1.00	0.05	0.27	0.31	—	3,163	3,163	0.05	0.49	0.14	3,311
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.27	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.6	67.6	< 0.005	< 0.005	0.08	68.6
Vendor	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	66.4	66.4	< 0.005	0.01	0.05	69.3
Hauling	0.01	0.56	0.13	< 0.005	0.01	0.15	0.15	0.01	0.04	0.05	—	489	489	0.01	0.08	0.37	512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.01	11.5
Hauling	< 0.005	0.10	0.02	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	81.0	81.0	< 0.005	0.01	0.06	84.8

3.13. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.27	12.7	0.05	0.05	—	0.05	0.05	—	0.05	—	4,588	4,588	0.19	0.04	—	4,604
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.38	3.79	0.01	0.01	—	0.01	0.01	—	0.01	—	1,370	1,370	0.06	0.01	—	1,375
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	227	227	0.01	< 0.005	—	228
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.72	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	184	184	< 0.005	< 0.005	0.43	185
Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	311	311	< 0.005	0.05	0.49	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	52.9	52.9	< 0.005	< 0.005	0.06	53.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.9	92.9	< 0.005	0.01	0.06	97.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.76	8.76	< 0.005	< 0.005	0.01	8.90
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.01	16.1

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.27	12.7	0.05	0.05	—	0.05	0.05	—	0.05	—	4,588	4,588	0.19	0.04	—	4,604
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.38	3.79	0.01	0.01	—	0.01	0.01	—	0.01	—	1,370	1,370	0.06	0.01	—	1,375
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	227	227	0.01	< 0.005	—	228
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.72	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	184	184	< 0.005	< 0.005	0.43	185

Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	311	311	< 0.005	0.05	0.49	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	52.9	52.9	< 0.005	< 0.005	0.06	53.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.9	92.9	< 0.005	0.01	0.06	97.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.76	8.76	< 0.005	< 0.005	0.01	8.90
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.01	16.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	1.15	6.80	0.02	0.02	—	0.02	0.02	—	0.02	—	1,849	1,849	0.08	0.02	—	1,855
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	306	306	0.01	< 0.005	—	307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.19	2.16	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	507	507	0.01	0.02	0.04	514
Vendor	0.01	0.71	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	609	609	0.01	0.09	0.03	636
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.9	91.9	< 0.005	< 0.005	0.12	93.3
Vendor	< 0.005	0.13	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	< 0.005	0.02	0.09	115
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.02	15.4
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	19.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.15	6.80	0.02	0.02	—	0.02	0.02	—	0.02	—	1,849	1,849	0.08	0.02	—	1,855
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	306	306	0.01	< 0.005	—	307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.19	2.16	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	507	507	0.01	0.02	0.04	514
Vendor	0.01	0.71	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	609	609	0.01	0.09	0.03	636

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.9	91.9	< 0.005	< 0.005	0.12	93.3
Vendor	< 0.005	0.13	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	< 0.005	0.02	0.09	115
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.02	15.4
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	19.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	2.55	15.0	0.04	0.05	—	0.05	0.05	—	0.05	—	4,080	4,080	0.17	0.03	—	4,094
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	2.74	0.01	0.01	—	0.01	0.01	—	0.01	—	675	675	0.03	0.01	—	678
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.15	2.15	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	521	521	0.01	0.02	1.36	529
Vendor	0.01	0.65	0.22	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	1.03	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.17	2.04	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	498	498	0.01	0.02	0.04	505
Vendor	0.01	0.67	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	0.03	616
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.80	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.23	202
Vendor	0.01	0.27	0.09	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	234	234	< 0.005	0.03	0.18	245
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.0	33.0	< 0.005	< 0.005	0.04	33.5
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.8	38.8	< 0.005	0.01	0.03	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.55	15.0	0.04	0.05	—	0.05	0.05	—	0.05	—	4,080	4,080	0.17	0.03	—	4,094
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	2.74	0.01	0.01	—	0.01	0.01	—	0.01	—	675	675	0.03	0.01	—	678
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.15	2.15	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	521	521	0.01	0.02	1.36	529
Vendor	0.01	0.65	0.22	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	1.03	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.17	2.04	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	498	498	0.01	0.02	0.04	505
Vendor	0.01	0.67	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	0.03	616
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.80	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.23	202
Vendor	0.01	0.27	0.09	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	234	234	< 0.005	0.03	0.18	245
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.0	33.0	< 0.005	< 0.005	0.04	33.5
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.8	38.8	< 0.005	0.01	0.03	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.24	12.4	0.04	0.05	—	0.05	0.05	—	0.05	—	3,916	3,916	0.16	0.03	—	3,929
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.23	2.26	0.01	0.01	—	0.01	0.01	—	0.01	—	648	648	0.03	0.01	—	651
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.99	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	240	240	0.01	0.01	0.63	244
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.75	449
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.94	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	230	230	0.01	0.01	0.02	233

Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	97.0	97.0	< 0.005	< 0.005	0.11	98.4
Vendor	< 0.005	0.20	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	180	180	< 0.005	0.03	0.14	188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	0.02	16.3
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	0.02	31.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.24	12.4	0.04	0.05	—	0.05	0.05	—	0.05	—	3,916	3,916	0.16	0.03	—	3,929
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.23	2.26	0.01	0.01	—	0.01	0.01	—	0.01	—	648	648	0.03	0.01	—	651
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.99	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	240	240	0.01	0.01	0.63	244
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.75	449
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.94	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	230	230	0.01	0.01	0.02	233
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	97.0	97.0	< 0.005	< 0.005	0.11	98.4
Vendor	< 0.005	0.20	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	180	180	< 0.005	0.03	0.14	188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	0.02	16.3

Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	0.02	31.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.55	5.51	0.02	0.02	—	0.02	0.02	—	0.02	—	1,738	1,738	0.07	0.01	—	1,744
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.10	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	288	288	0.01	< 0.005	—	289
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.92	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	< 0.005	< 0.005	0.56	238
Vendor	0.01	0.45	0.15	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.65	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.07	0.88	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	226	226	0.01	0.01	0.01	230
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.02	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.04	43.0
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.1	77.1	< 0.005	0.01	0.05	80.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.01	7.01	< 0.005	< 0.005	0.01	7.12
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.55	5.51	0.02	0.02	—	0.02	0.02	—	0.02	—	1,738	1,738	0.07	0.01	—	1,744
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.10	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	288	288	0.01	< 0.005	—	289
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.92	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	< 0.005	< 0.005	0.56	238
Vendor	0.01	0.45	0.15	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.65	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.07	0.88	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	226	226	0.01	0.01	0.01	230

Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.02	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.04	43.0
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.1	77.1	< 0.005	0.01	0.05	80.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.01	7.01	< 0.005	< 0.005	0.01	7.12
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.25	3.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	497	497	0.02	< 0.005	—	499
Paving	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.03	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.5	54.5	< 0.005	< 0.005	—	54.7
Paving	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.02	9.02	< 0.005	< 0.005	—	9.05
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	0.34	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.25	3.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	497	497	0.02	< 0.005	—	499
Paving	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.03	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.5	54.5	< 0.005	< 0.005	—	54.7
Paving	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.02	9.02	< 0.005	< 0.005	—	9.05
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.04	0.56	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	0.34	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Architectural Coating (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	0.01	—	—	—	—	—	—	—	463	463	0.02	< 0.005	—	465
Architectural Coatings	4.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Architectural Coatings	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	8.61	8.61	< 0.005	< 0.005	—	8.64
Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.3	26.3	< 0.005	< 0.005	0.06	26.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	< 0.005	2.89

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.26. Architectural Coating (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	0.01	—	—	—	—	—	—	—	463	463	0.02	< 0.005	—	465
Architectural Coatings	4.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Architectural Coatings	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	8.61	8.61	< 0.005	< 0.005	—	8.64
Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.3	26.3	< 0.005	< 0.005	0.06	26.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	< 0.005	2.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Trenching (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	86.9	86.9	< 0.005	< 0.005	—	87.2
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	1.27	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	307	307	0.01	0.01	0.80	312
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.09	56.1
Hauling	0.03	2.24	0.53	0.02	0.03	0.61	0.64	0.03	0.17	0.20	—	2,024	2,024	0.03	0.31	3.50	2,122
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.10	1.20	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	294	294	0.01	0.01	0.02	298
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.7	53.7	< 0.005	0.01	< 0.005	56.0
Hauling	0.02	2.32	0.53	0.02	0.03	0.61	0.64	0.03	0.17	0.20	—	2,024	2,024	0.03	0.31	0.09	2,119
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	45.4	45.4	< 0.005	< 0.005	0.05	46.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.23	8.23	< 0.005	< 0.005	0.01	8.60
Hauling	< 0.005	0.36	0.08	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	311	311	0.01	0.05	0.23	325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.52	7.52	< 0.005	< 0.005	0.01	7.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.42
Hauling	< 0.005	0.07	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.4	51.4	< 0.005	0.01	0.04	53.9

3.28. Trenching (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	86.9	86.9	< 0.005	< 0.005	—	87.2
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	1.27	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	307	307	0.01	0.01	0.80	312
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.09	56.1
Hauling	0.03	2.24	0.53	0.02	0.03	0.61	0.64	0.03	0.17	0.20	—	2,024	2,024	0.03	0.31	3.50	2,122
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.10	1.20	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	294	294	0.01	0.01	0.02	298
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.7	53.7	< 0.005	0.01	< 0.005	56.0
Hauling	0.02	2.32	0.53	0.02	0.03	0.61	0.64	0.03	0.17	0.20	—	2,024	2,024	0.03	0.31	0.09	2,119
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	45.4	45.4	< 0.005	< 0.005	0.05	46.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.23	8.23	< 0.005	< 0.005	0.01	8.60
Hauling	< 0.005	0.36	0.08	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	311	311	0.01	0.05	0.23	325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.52	7.52	< 0.005	< 0.005	0.01	7.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.42

Hauling	< 0.005	0.07	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	51.4	51.4	< 0.005	0.01	0.04	53.9

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
2-Existing Project Site Demo	Demolition	6/15/2029	6/29/2029	5.00	11.0	—
12-Decomissioning Demolition	Demolition	10/1/2032	12/30/2032	5.00	65.0	—
1-Subsurface Exploration	Site Preparation	5/1/2029	7/3/2029	5.00	46.0	—
3-Site Preparation/ Rough Grading	Grading	7/4/2029	7/25/2029	5.00	16.0	—
4-Foundations	Building Construction	8/1/2029	3/20/2030	5.00	166	—

10-Commissioning / Startup and Testing	Building Construction	5/1/2031	9/30/2031	5.00	109	—
6-Equipment , Structural Steel & Building Erection, Piping	Building Construction	10/1/2029	7/22/2030	5.00	211	—
7-Electrical & Instrumentation	Building Construction	6/1/2030	4/5/2031	5.00	220	—
8-Paving	Paving	6/1/2031	7/27/2031	5.00	40.0	—
9-Painting/Insulation	Architectural Coating	7/1/2031	8/26/2031	5.00	41.0	—
5-Trenching/Undergrounds	Trenching	2/1/2030	4/19/2030	5.00	56.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
3-Site Preparation/ Rough Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
3-Site Preparation/ Rough Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	9.00	107	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
2-Existing Project Site Demo	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	9.00	107	0.37
3-Site Preparation/ Rough Grading	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29

4-Foundations	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
4-Foundations	Generator Sets	Diesel	Tier 4 Final	4.00	9.00	49.0	0.74
4-Foundations	Welders	Diesel	Tier 4 Final	4.00	9.00	24.0	0.45
10-Commissioning / Startup and Testing	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
10-Commissioning / Startup and Testing	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
10-Commissioning / Startup and Testing	Generator Sets	Diesel	Tier 4 Final	3.00	9.00	49.0	0.74
10-Commissioning / Startup and Testing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
10-Commissioning / Startup and Testing	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
6-Equipment , Structural Steel & Building Erection, Piping	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
7-Electrical & Instrumentation	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
7-Electrical & Instrumentation	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74

7-Electrical & Instrumentation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	9.00	225	0.37
7-Electrical & Instrumentation	Welders	Diesel	Tier 4 Final	5.00	9.00	24.0	0.45
8-Paving	Rollers	Diesel	Tier 4 Final	1.00	9.00	125	0.38
9-Painting/Insulation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
12-Decomissioning Demolition	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	107	0.37
2-Existing Project Site Demo	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
2-Existing Project Site Demo	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
2-Existing Project Site Demo	Skid Steer Loaders	Diesel	Tier 4 Final	1.00	9.00	65.0	0.37
2-Existing Project Site Demo	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
12-Decomissioning Demolition	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
12-Decomissioning Demolition	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
12-Decomissioning Demolition	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
12-Decomissioning Demolition	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
12-Decomissioning Demolition	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
12-Decomissioning Demolition	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	225	0.37

12-Decomissioning Demolition	Welders	Electric	Average	1.00	9.00	46.0	0.45
12-Decomissioning Demolition	Welders	Diesel	Tier 4 Final	1.00	9.00	24.0	0.45
1-Subsurface Exploration	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
1-Subsurface Exploration	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
1-Subsurface Exploration	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	9.00	300	0.50
3-Site Preparation/ Rough Grading	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
3-Site Preparation/ Rough Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	107	0.37
4-Foundations	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	346	0.38
4-Foundations	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
4-Foundations	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	9.00	170	0.40
10-Commissioning / Startup and Testing	Welders	Electric	Average	2.00	9.00	46.0	0.45
10-Commissioning / Startup and Testing	Forklifts	Electric	Average	1.00	9.00	82.0	0.20

10-Commissioning / Startup and Testing	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
10-Commissioning / Startup and Testing	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	1.00	9.00	122	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Electric	Average	5.00	9.00	46.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	1.00	9.00	84.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	2.00	9.00	67.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Electric	Average	5.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38

6-Equipment , Structural Steel & Building Erection, Piping	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
7-Electrical & Instrumentation	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
7-Electrical & Instrumentation	Welders	Electric	Average	5.00	9.00	46.0	0.45
7-Electrical & Instrumentation	Aerial Lifts	Electric	Average	4.00	9.00	46.0	0.31
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
7-Electrical & Instrumentation	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
9-Painting/Insulation	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
5-Trenching/Undergrounds	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
5-Trenching/Undergrounds	Pumps	Diesel	Tier 4 Final	4.00	9.00	11.0	0.74

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
3-Site Preparation/ Rough Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
3-Site Preparation/ Rough Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	9.00	107	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
2-Existing Project Site Demo	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73

12-Decomissioning Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	9.00	107	0.37
3-Site Preparation/ Rough Grading	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
4-Foundations	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
4-Foundations	Generator Sets	Diesel	Tier 4 Final	4.00	9.00	49.0	0.74
4-Foundations	Welders	Diesel	Tier 4 Final	4.00	9.00	24.0	0.45
10-Commissioning / Startup and Testing	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
10-Commissioning / Startup and Testing	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
10-Commissioning / Startup and Testing	Generator Sets	Diesel	Tier 4 Final	3.00	9.00	49.0	0.74
10-Commissioning / Startup and Testing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
10-Commissioning / Startup and Testing	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
6-Equipment , Structural Steel & Building Erection, Piping	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37

6-Equipment , Structural Steel & Building Erection, Piping	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
7-Electrical & Instrumentation	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
7-Electrical & Instrumentation	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
7-Electrical & Instrumentation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
7-Electrical & Instrumentation	Welders	Diesel	Tier 4 Final	5.00	9.00	24.0	0.45
8-Paving	Rollers	Diesel	Tier 4 Final	1.00	9.00	125	0.38
9-Painting/Insulation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
12-Decomissioning Demolition	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	107	0.37
2-Existing Project Site Demo	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
2-Existing Project Site Demo	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
2-Existing Project Site Demo	Skid Steer Loaders	Diesel	Tier 4 Final	1.00	9.00	65.0	0.37
2-Existing Project Site Demo	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
12-Decomissioning Demolition	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
12-Decomissioning Demolition	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29

12-Decomissioning Demolition	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
12-Decomissioning Demolition	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
12-Decomissioning Demolition	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
12-Decomissioning Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
12-Decomissioning Demolition	Welders	Electric	Average	1.00	9.00	46.0	0.45
12-Decomissioning Demolition	Welders	Diesel	Tier 4 Final	1.00	9.00	24.0	0.45
1-Subsurface Exploration	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
1-Subsurface Exploration	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
1-Subsurface Exploration	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	9.00	300	0.50
3-Site Preparation/ Rough Grading	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
3-Site Preparation/ Rough Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	107	0.37
4-Foundations	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	346	0.38

4-Foundations	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
4-Foundations	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	9.00	170	0.40
10-Commissioning / Startup and Testing	Welders	Electric	Average	2.00	9.00	46.0	0.45
10-Commissioning / Startup and Testing	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
10-Commissioning / Startup and Testing	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
10-Commissioning / Startup and Testing	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	1.00	9.00	122	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Electric	Average	5.00	9.00	46.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	1.00	9.00	84.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	2.00	9.00	67.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Electric	Average	5.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48

6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
6-Equipment , Structural Steel & Building Erection, Piping	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
7-Electrical & Instrumentation	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
7-Electrical & Instrumentation	Welders	Electric	Average	5.00	9.00	46.0	0.45
7-Electrical & Instrumentation	Aerial Lifts	Electric	Average	4.00	9.00	46.0	0.31
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
7-Electrical & Instrumentation	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
9-Painting/Insulation	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
5-Trenching/Undergrounds	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
5-Trenching/Undergrounds	Pumps	Diesel	Tier 4 Final	4.00	9.00	11.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

1-Subsurface Exploration	—	—	—	—
1-Subsurface Exploration	Worker	28.0	10.0	LDA,LDT1,LDT2
1-Subsurface Exploration	Vendor	8.00	10.0	HHDT,MHDT
1-Subsurface Exploration	Hauling	13.0	42.0	HHDT
1-Subsurface Exploration	Onsite truck	—	—	HHDT
3-Site Preparation/ Rough Grading	—	—	—	—
3-Site Preparation/ Rough Grading	Worker	30.0	10.0	LDA,LDT1,LDT2
3-Site Preparation/ Rough Grading	Vendor	10.0	10.0	HHDT,MHDT
3-Site Preparation/ Rough Grading	Hauling	8.00	42.0	HHDT
3-Site Preparation/ Rough Grading	Onsite truck	—	—	HHDT
4-Foundations	—	—	—	—
4-Foundations	Worker	68.0	10.0	LDA,LDT1,LDT2
4-Foundations	Vendor	16.0	10.0	HHDT,MHDT
4-Foundations	Hauling	25.0	42.0	HHDT
4-Foundations	Onsite truck	—	—	HHDT
5-Trenching/Undergrounds	—	—	—	—
5-Trenching/Undergrounds	Worker	46.0	10.0	LDA,LDT1,LDT2
5-Trenching/Undergrounds	Vendor	2.00	10.0	HHDT,MHDT
5-Trenching/Undergrounds	Hauling	16.0	42.0	HHDT
5-Trenching/Undergrounds	Onsite truck	—	—	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	—	—	—	—
6-Equipment , Structural Steel & Building Erection, Piping	Worker	78.0	10.0	LDA,LDT1,LDT2
6-Equipment , Structural Steel & Building Erection, Piping	Vendor	22.0	10.0	HHDT,MHDT
6-Equipment , Structural Steel & Building Erection, Piping	Hauling	0.00	20.0	HHDT

6-Equipment , Structural Steel & Building Erection, Piping	Onsite truck	—	—	HHDT
7-Electrical & Instrumentation	—	—	—	—
7-Electrical & Instrumentation	Worker	36.0	10.0	LDA,LDT1,LDT2
7-Electrical & Instrumentation	Vendor	16.0	10.0	HHDT,MHDT
7-Electrical & Instrumentation	Hauling	0.00	20.0	HHDT
7-Electrical & Instrumentation	Onsite truck	—	—	HHDT
2-Existing Project Site Demo	—	—	—	—
2-Existing Project Site Demo	Worker	22.0	10.0	LDA,LDT1,LDT2
2-Existing Project Site Demo	Vendor	8.00	10.0	HHDT,MHDT
2-Existing Project Site Demo	Hauling	47.5	20.0	HHDT
2-Existing Project Site Demo	Onsite truck	—	—	HHDT
8-Paving	—	—	—	—
8-Paving	Worker	22.0	10.0	LDA,LDT1,LDT2
8-Paving	Vendor	—	10.0	HHDT,MHDT
8-Paving	Hauling	0.00	20.0	HHDT
8-Paving	Onsite truck	—	—	HHDT
12-Decomissioning Demolition	—	—	—	—
12-Decomissioning Demolition	Worker	28.0	10.0	LDA,LDT1,LDT2
12-Decomissioning Demolition	Vendor	18.0	10.0	HHDT,MHDT
12-Decomissioning Demolition	Hauling	3.37	20.0	HHDT
12-Decomissioning Demolition	Onsite truck	—	—	HHDT
10-Commissioning / Startup and Testing	—	—	—	—
10-Commissioning / Startup and Testing	Worker	28.0	10.0	LDA,LDT1,LDT2
10-Commissioning / Startup and Testing	Vendor	12.0	10.0	HHDT,MHDT

10-Commissioning / Startup and Testing	Hauling	0.00	20.0	HHDT
10-Commissioning / Startup and Testing	Onsite truck	—	—	HHDT
9-Painting/Insulation	—	—	—	—
9-Painting/Insulation	Worker	4.00	10.0	LDA,LDT1,LDT2
9-Painting/Insulation	Vendor	—	10.0	HHDT,MHDT
9-Painting/Insulation	Hauling	0.00	20.0	HHDT
9-Painting/Insulation	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
1-Subsurface Exploration	—	—	—	—
1-Subsurface Exploration	Worker	28.0	10.0	LDA,LDT1,LDT2
1-Subsurface Exploration	Vendor	8.00	10.0	HHDT,MHDT
1-Subsurface Exploration	Hauling	13.0	42.0	HHDT
1-Subsurface Exploration	Onsite truck	—	—	HHDT
3-Site Preparation/ Rough Grading	—	—	—	—
3-Site Preparation/ Rough Grading	Worker	30.0	10.0	LDA,LDT1,LDT2
3-Site Preparation/ Rough Grading	Vendor	10.0	10.0	HHDT,MHDT
3-Site Preparation/ Rough Grading	Hauling	8.00	42.0	HHDT
3-Site Preparation/ Rough Grading	Onsite truck	—	—	HHDT
4-Foundations	—	—	—	—
4-Foundations	Worker	68.0	10.0	LDA,LDT1,LDT2
4-Foundations	Vendor	16.0	10.0	HHDT,MHDT
4-Foundations	Hauling	25.0	42.0	HHDT
4-Foundations	Onsite truck	—	—	HHDT
5-Trenching/Undergrounds	—	—	—	—

5-Trenching/Undergrounds	Worker	46.0	10.0	LDA,LDT1,LDT2
5-Trenching/Undergrounds	Vendor	2.00	10.0	HHDT,MHDT
5-Trenching/Undergrounds	Hauling	16.0	42.0	HHDT
5-Trenching/Undergrounds	Onsite truck	—	—	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	—	—	—	—
6-Equipment , Structural Steel & Building Erection, Piping	Worker	78.0	10.0	LDA,LDT1,LDT2
6-Equipment , Structural Steel & Building Erection, Piping	Vendor	22.0	10.0	HHDT,MHDT
6-Equipment , Structural Steel & Building Erection, Piping	Hauling	0.00	20.0	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	Onsite truck	—	—	HHDT
7-Electrical & Instrumentation	—	—	—	—
7-Electrical & Instrumentation	Worker	36.0	10.0	LDA,LDT1,LDT2
7-Electrical & Instrumentation	Vendor	16.0	10.0	HHDT,MHDT
7-Electrical & Instrumentation	Hauling	0.00	20.0	HHDT
7-Electrical & Instrumentation	Onsite truck	—	—	HHDT
2-Existing Project Site Demo	—	—	—	—
2-Existing Project Site Demo	Worker	22.0	10.0	LDA,LDT1,LDT2
2-Existing Project Site Demo	Vendor	8.00	10.0	HHDT,MHDT
2-Existing Project Site Demo	Hauling	47.5	20.0	HHDT
2-Existing Project Site Demo	Onsite truck	—	—	HHDT
8-Paving	—	—	—	—
8-Paving	Worker	22.0	10.0	LDA,LDT1,LDT2
8-Paving	Vendor	—	10.0	HHDT,MHDT
8-Paving	Hauling	0.00	20.0	HHDT
8-Paving	Onsite truck	—	—	HHDT

12-Decomissioning Demolition	—	—	—	—
12-Decomissioning Demolition	Worker	28.0	10.0	LDA,LDT1,LDT2
12-Decomissioning Demolition	Vendor	18.0	10.0	HHDT,MHDT
12-Decomissioning Demolition	Hauling	3.37	20.0	HHDT
12-Decomissioning Demolition	Onsite truck	—	—	HHDT
10-Commissioning / Startup and Testing	—	—	—	—
10-Commissioning / Startup and Testing	Worker	28.0	10.0	LDA,LDT1,LDT2
10-Commissioning / Startup and Testing	Vendor	12.0	10.0	HHDT,MHDT
10-Commissioning / Startup and Testing	Hauling	0.00	20.0	HHDT
10-Commissioning / Startup and Testing	Onsite truck	—	—	HHDT
9-Painting/Insulation	—	—	—	—
9-Painting/Insulation	Worker	4.00	10.0	LDA,LDT1,LDT2
9-Painting/Insulation	Vendor	—	10.0	HHDT,MHDT
9-Painting/Insulation	Hauling	0.00	20.0	HHDT
9-Painting/Insulation	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
9-Painting/Insulation	0.00	0.00	34,524	11,508	20,626

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
2-Existing Project Site Demo	0.00	0.00	0.00	2,092	—
12-Decomissioning Demolition	0.00	0.00	0.00	19,000	—
1-Subsurface Exploration	—	500	0.00	0.00	—
3-Site Preparation/ Rough Grading	—	1,500	26.0	0.00	—
8-Paving	0.00	0.00	0.00	0.00	7.89
5-Trenching/Undergrounds	—	10,000	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Office Building	0.00	0%
Other Asphalt Surfaces	7.89	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2029	1,393	532	0.03	< 0.005
2030	2,581	532	0.03	< 0.005
2032	345	532	0.03	< 0.005
2031	1,671	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.5	annual days of extreme heat
Extreme Precipitation	5.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	15.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.8
AQ-PM	29.0
AQ-DPM	50.7
Drinking Water	65.5
Lead Risk Housing	78.7
Pesticides	97.0
Toxic Releases	17.6
Traffic	38.6
Effect Indicators	—
CleanUp Sites	83.5
Groundwater	89.6
Haz Waste Facilities/Generators	88.6
Impaired Water Bodies	58.7
Solid Waste	35.7
Sensitive Population	—
Asthma	61.2
Cardio-vascular	27.2

Low Birth Weights	58.6
Socioeconomic Factor Indicators	—
Education	89.7
Housing	82.4
Linguistic	74.1
Poverty	77.2
Unemployment	60.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	22.12241755
Employed	50.32721673
Median HI	32.6318491
Education	—
Bachelor's or higher	25.84370589
High school enrollment	3.387655588
Preschool enrollment	66.45707686
Transportation	—
Auto Access	44.50147568
Active commuting	49.108174
Social	—
2-parent households	84.48607725
Voting	39.86911331
Neighborhood	—
Alcohol availability	27.4092134

Park access	81.35506224
Retail density	61.9658668
Supermarket access	74.04080585
Tree canopy	11.8311305
Housing	—
Homeownership	29.911459
Housing habitability	29.33401771
Low-inc homeowner severe housing cost burden	8.648787373
Low-inc renter severe housing cost burden	67.81727191
Uncrowded housing	29.05171308
Health Outcomes	—
Insured adults	6.83947132
Arthritis	77.8
Asthma ER Admissions	39.8
High Blood Pressure	51.5
Cancer (excluding skin)	82.6
Asthma	23.6
Coronary Heart Disease	66.7
Chronic Obstructive Pulmonary Disease	37.6
Diagnosed Diabetes	54.0
Life Expectancy at Birth	33.7
Cognitively Disabled	33.5
Physically Disabled	36.0
Heart Attack ER Admissions	36.7
Mental Health Not Good	23.2
Chronic Kidney Disease	45.1
Obesity	25.8

Pedestrian Injuries	57.0
Physical Health Not Good	30.9
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	24.0
Current Smoker	23.0
No Leisure Time for Physical Activity	29.0
Climate Change Exposures	—
Wildfire Risk	10.2
SLR Inundation Area	0.0
Children	2.5
Elderly	92.1
English Speaking	15.1
Foreign-born	77.7
Outdoor Workers	4.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	35.5
Traffic Density	42.1
Traffic Access	23.0
Other Indices	—
Hardship	70.5
Other Decision Support	—
2016 Voting	40.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	83.0

Healthy Places Index Score for Project Location (b)	27.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Project Specific
Construction: Off-Road Equipment	Project Specific
Construction: Trips and VMT	Project specific
Construction: Dust From Material Movement	Project specific

SCG-VCM Project Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SCG-VCM Project
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.20
Precipitation (days)	2.20
Location	1555 N Olive St, Ventura, CA 93001, USA
County	Ventura
City	Ventura
Air District	Ventura County APCD
Air Basin	South Central Coast
TAZ	3406
EDFZ	8
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Heavy Industry	5.46	1000sqft	0.13	5,459	0.00	—	—	—
General Heavy Industry	10.5	1000sqft	0.24	10,458	0.00	—	—	—

General Heavy Industry	2.02	1000sqft	0.05	2,016	0.00	—	—	—
General Heavy Industry	0.44	1000sqft	0.01	442	0.00	—	—	—
General Office Building	4.64	1000sqft	0.11	4,641	0.00	—	—	—
Other Asphalt Surfaces	344	1000sqft	7.89	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.90	29.1	70.9	0.27	0.48	7.52	7.94	0.48	2.03	2.51	—	34,027	34,027	0.83	3.76	44.6	35,213
Mit.	5.90	29.1	70.9	0.27	0.48	7.52	7.94	0.48	2.03	2.51	—	34,027	34,027	0.83	3.76	44.6	35,213
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.40	52.1	95.0	0.49	0.84	12.7	13.5	0.84	3.49	4.33	—	59,713	59,713	1.46	6.01	1.78	61,542
Mit.	2.40	52.1	95.0	0.49	0.84	12.7	13.5	0.84	3.49	4.33	—	59,713	59,713	1.46	6.01	1.78	61,542
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.89	13.3	37.2	0.15	0.22	3.12	3.34	0.22	0.88	1.10	—	16,168	16,168	0.49	1.48	7.58	16,494
Mit.	0.89	13.3	37.2	0.15	0.22	3.12	3.34	0.22	0.88	1.10	—	16,168	16,168	0.49	1.48	7.58	16,494
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	2.43	6.79	0.03	0.04	0.57	0.61	0.04	0.16	0.20	—	2,677	2,677	0.08	0.25	1.25	2,731
Mit.	0.16	2.43	6.79	0.03	0.04	0.57	0.61	0.04	0.16	0.20	—	2,677	2,677	0.08	0.25	1.25	2,731
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.43	29.1	65.5	0.27	0.48	7.52	7.94	0.48	2.03	2.51	—	34,027	34,027	0.77	3.76	44.6	35,213
2030	1.65	22.7	70.9	0.22	0.35	5.37	5.72	0.35	1.46	1.82	—	26,430	26,430	0.83	2.41	27.9	27,194
2031	5.90	3.47	30.7	0.10	0.12	0.48	0.54	0.12	0.12	0.21	—	10,006	10,006	0.39	0.14	1.33	10,058
2032	—	—	—	—	—	—	—	—	—	—	—	2.82	2.82	< 0.005	< 0.005	—	2.83

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	2.15	37.3	89.9	0.38	0.62	8.05	8.67	0.62	2.21	2.83	—	45,393	45,393	1.21	3.96	1.23	46,606
2030	2.40	52.1	95.0	0.49	0.84	12.7	13.5	0.84	3.49	4.33	—	59,713	59,713	1.46	6.01	1.78	61,542
2031	0.68	3.50	30.7	0.10	0.12	0.39	0.51	0.12	0.10	0.21	—	9,996	9,996	0.39	0.15	0.03	10,050
2032	0.32	3.88	12.6	0.04	0.05	0.60	0.65	0.05	0.13	0.18	—	3,951	3,951	0.14	0.13	0.03	3,994
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.67	13.3	29.2	0.13	0.22	3.12	3.34	0.22	0.88	1.10	—	15,399	15,399	0.39	1.48	7.58	15,858
2030	0.89	11.3	37.2	0.15	0.21	2.29	2.51	0.21	0.62	0.83	—	16,168	16,168	0.49	1.04	5.06	16,494
2031	0.85	1.18	10.2	0.04	0.04	0.18	0.22	0.04	0.04	0.08	—	3,501	3,501	0.14	0.06	0.24	3,522
2032	0.06	0.69	2.25	0.01	0.01	0.11	0.12	0.01	0.02	0.03	—	704	704	0.03	0.02	0.10	711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.12	2.43	5.32	0.02	0.04	0.57	0.61	0.04	0.16	0.20	—	2,549	2,549	0.06	0.25	1.25	2,625
2030	0.16	2.06	6.79	0.03	0.04	0.42	0.46	0.04	0.11	0.15	—	2,677	2,677	0.08	0.17	0.84	2,731
2031	0.15	0.22	1.86	0.01	0.01	0.03	0.04	0.01	0.01	0.02	—	580	580	0.02	0.01	0.04	583
2032	0.01	0.13	0.41	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	117	117	< 0.005	< 0.005	0.02	118

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	1.43	29.1	65.5	0.27	0.48	7.52	7.94	0.48	2.03	2.51	—	34,027	34,027	0.77	3.76	44.6	35,213
2030	1.65	22.7	70.9	0.22	0.35	5.37	5.72	0.35	1.46	1.82	—	26,430	26,430	0.83	2.41	27.9	27,194
2031	5.90	3.47	30.7	0.10	0.12	0.48	0.54	0.12	0.12	0.21	—	10,006	10,006	0.39	0.14	1.33	10,058
2032	—	—	—	—	—	—	—	—	—	—	—	2.82	2.82	< 0.005	< 0.005	—	2.83

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	2.15	37.3	89.9	0.38	0.62	8.05	8.67	0.62	2.21	2.83	—	45,393	45,393	1.21	3.96	1.23	46,606
2030	2.40	52.1	95.0	0.49	0.84	12.7	13.5	0.84	3.49	4.33	—	59,713	59,713	1.46	6.01	1.78	61,542
2031	0.68	3.50	30.7	0.10	0.12	0.39	0.51	0.12	0.10	0.21	—	9,996	9,996	0.39	0.15	0.03	10,050
2032	0.32	3.88	12.6	0.04	0.05	0.60	0.65	0.05	0.13	0.18	—	3,951	3,951	0.14	0.13	0.03	3,994
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.67	13.3	29.2	0.13	0.22	3.12	3.34	0.22	0.88	1.10	—	15,399	15,399	0.39	1.48	7.58	15,858
2030	0.89	11.3	37.2	0.15	0.21	2.29	2.51	0.21	0.62	0.83	—	16,168	16,168	0.49	1.04	5.06	16,494
2031	0.85	1.18	10.2	0.04	0.04	0.18	0.22	0.04	0.04	0.08	—	3,501	3,501	0.14	0.06	0.24	3,522
2032	0.06	0.69	2.25	0.01	0.01	0.11	0.12	0.01	0.02	0.03	—	704	704	0.03	0.02	0.10	711
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2029	0.12	2.43	5.32	0.02	0.04	0.57	0.61	0.04	0.16	0.20	—	2,549	2,549	0.06	0.25	1.25	2,625
2030	0.16	2.06	6.79	0.03	0.04	0.42	0.46	0.04	0.11	0.15	—	2,677	2,677	0.08	0.17	0.84	2,731
2031	0.15	0.22	1.86	0.01	0.01	0.03	0.04	0.01	0.01	0.02	—	580	580	0.02	0.01	0.04	583
2032	0.01	0.13	0.41	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	117	117	< 0.005	< 0.005	0.02	118

3. Construction Emissions Details

3.1. Demolition (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.46	5.35	24.0	0.04	0.08	—	0.08	0.08	—	0.08	—	4,394	4,394	0.18	0.04	—	4,409
Demolition	—	—	—	—	—	2.69	2.69	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.16	0.72	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	132	132	0.01	< 0.005	—	133
Demolition	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.64	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.43	152
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.05	3.67	0.98	0.02	0.04	0.86	0.90	0.04	0.24	0.28	—	2,988	2,988	0.06	0.47	5.46	3,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.34	4.34	< 0.005	< 0.005	0.01	4.40
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.98
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.07	94.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.16
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.01	15.6

3.2. Demolition (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.46	5.35	24.0	0.04	0.08	—	0.08	0.08	—	0.08	—	4,394	4,394	0.18	0.04	—	4,409
Demolition	—	—	—	—	—	2.69	2.69	—	0.41	0.41	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.16	0.72	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	132	132	0.01	< 0.005	—	133
Demolition	—	—	—	—	—	0.08	0.08	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.04	0.64	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	149	149	< 0.005	0.01	0.43	152
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.05	3.67	0.98	0.02	0.04	0.86	0.90	0.04	0.24	0.28	—	2,988	2,988	0.06	0.47	5.46	3,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.34	4.34	< 0.005	< 0.005	0.01	4.40
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.67	6.67	< 0.005	< 0.005	0.01	6.98
Hauling	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	90.1	90.1	< 0.005	0.01	0.07	94.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.10	1.10	< 0.005	< 0.005	< 0.005	1.16
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.01	15.6

3.3. Demolition (2032) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.09	11.8	0.03	0.04	—	0.04	0.04	—	0.04	—	3,130	3,130	0.13	0.03	—	3,141
Demolition	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.55	2.09	0.01	0.01	—	0.01	0.01	—	0.01	—	557	557	0.02	< 0.005	—	559
Demolition	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	92.3	92.3	< 0.005	< 0.005	—	92.6
Demolition	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.65	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	0.01	0.01	176
Vendor	0.01	0.50	0.18	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	451	451	0.01	0.07	0.02	471
Hauling	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	194	194	< 0.005	0.03	0.01	203
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	0.03	31.6
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.05	83.9
Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.5	34.5	< 0.005	0.01	0.02	36.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.23
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.01	13.9
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.72	5.72	< 0.005	< 0.005	< 0.005	5.99

3.4. Demolition (2032) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	3.09	11.8	0.03	0.04	—	0.04	0.04	—	0.04	—	3,130	3,130	0.13	0.03	—	3,141

Demolitio	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.55	2.09	0.01	0.01	—	0.01	0.01	—	0.01	—	557	557	0.02	< 0.005	—	559
Demolitio n	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	92.3	92.3	< 0.005	< 0.005	—	92.6
Demolitio n	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.05	0.65	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	173	173	< 0.005	0.01	0.01	176
Vendor	0.01	0.50	0.18	< 0.005	< 0.005	0.15	0.15	< 0.005	0.04	0.05	—	451	451	0.01	0.07	0.02	471
Hauling	< 0.005	0.24	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	194	194	< 0.005	0.03	0.01	203
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	31.1	31.1	< 0.005	< 0.005	0.03	31.6
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	80.3	80.3	< 0.005	0.01	0.05	83.9

Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.5	34.5	< 0.005	0.01	0.02	36.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.15	5.15	< 0.005	< 0.005	< 0.005	5.23
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.01	13.9
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.72	5.72	< 0.005	< 0.005	< 0.005	5.99

3.5. Site Preparation (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	4.12	36.7	0.06	0.13	—	0.13	0.13	—	0.13	—	6,660	6,660	0.27	0.05	—	6,683
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.52	4.62	0.01	0.02	—	0.02	0.02	—	0.02	—	839	839	0.03	0.01	—	842
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	139	139	0.01	< 0.005	—	139
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.55	193
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.09	12.3	2.25	0.09	0.17	3.48	3.65	0.17	0.98	1.15	—	11,817	11,817	0.17	1.87	22.1	12,401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.1	23.1	< 0.005	< 0.005	0.03	23.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.9	27.9	< 0.005	< 0.005	0.02	29.2
Hauling	0.01	1.62	0.28	0.01	0.02	0.44	0.46	0.02	0.12	0.14	—	1,489	1,489	0.02	0.24	1.20	1,561
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.82	3.82	< 0.005	< 0.005	< 0.005	3.88
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	< 0.005	4.83
Hauling	< 0.005	0.30	0.05	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	247	247	< 0.005	0.04	0.20	258

3.6. Site Preparation (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	4.12	36.7	0.06	0.13	—	0.13	0.13	—	0.13	—	6,660	6,660	0.27	0.05	—	6,683
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.52	4.62	0.01	0.02	—	0.02	0.02	—	0.02	—	839	839	0.03	0.01	—	842
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.84	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	139	139	0.01	< 0.005	—	139

Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.05	0.82	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	190	190	< 0.005	0.01	0.55	193
Vendor	0.01	0.25	0.08	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	221	221	< 0.005	0.03	0.43	232
Hauling	0.09	12.3	2.25	0.09	0.17	3.48	3.65	0.17	0.98	1.15	—	11,817	11,817	0.17	1.87	22.1	12,401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.1	23.1	< 0.005	< 0.005	0.03	23.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	27.9	27.9	< 0.005	< 0.005	0.02	29.2
Hauling	0.01	1.62	0.28	0.01	0.02	0.44	0.46	0.02	0.12	0.14	—	1,489	1,489	0.02	0.24	1.20	1,561
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.82	3.82	< 0.005	< 0.005	< 0.005	3.88
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.62	4.62	< 0.005	< 0.005	< 0.005	4.83
Hauling	< 0.005	0.30	0.05	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	247	247	< 0.005	0.04	0.20	258

3.7. Grading (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.20	26.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,824	4,824	0.20	0.04	—	4,841
Dust From Material Movement	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	211	211	0.01	< 0.005	—	212
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.88	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.59	207
Vendor	0.01	0.31	0.10	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	277	277	< 0.005	0.04	0.53	290
Hauling	0.06	7.58	1.38	0.05	0.10	2.14	2.25	0.10	0.60	0.71	—	7,272	7,272	0.11	1.15	13.6	7,631
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.60	8.60	< 0.005	< 0.005	0.01	8.73
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	< 0.005	0.35	0.06	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	319	319	< 0.005	0.05	0.26	334
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.42	1.42	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	52.8	52.8	< 0.005	0.01	0.04	55.3

3.8. Grading (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47	3.20	26.6	0.04	0.09	—	0.09	0.09	—	0.09	—	4,824	4,824	0.20	0.04	—	4,841

Dust From Material Movement	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	211	211	0.01	< 0.005	—	212
Dust From Material Movement	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.0	35.0	< 0.005	< 0.005	—	35.1
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.88	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	204	204	< 0.005	0.01	0.59	207
Vendor	0.01	0.31	0.10	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	277	277	< 0.005	0.04	0.53	290
Hauling	0.06	7.58	1.38	0.05	0.10	2.14	2.25	0.10	0.60	0.71	—	7,272	7,272	0.11	1.15	13.6	7,631

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.60	8.60	< 0.005	< 0.005	0.01	8.73
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.1	12.1	< 0.005	< 0.005	0.01	12.7
Hauling	< 0.005	0.35	0.06	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	319	319	< 0.005	0.05	0.26	334
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.42	1.42	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	< 0.005	0.06	0.01	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	52.8	52.8	< 0.005	0.01	0.04	55.3

3.9. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.44	13.0	0.03	0.05	—	0.05	0.05	—	0.05	—	3,112	3,112	0.13	0.03	—	3,123
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.26	2.37	0.01	0.01	—	0.01	0.01	—	0.01	—	515	515	0.02	< 0.005	—	517
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.13	1.99	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	1.33	469
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.85	463
Hauling	0.18	23.7	4.32	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,725	22,725	0.33	3.60	42.5	23,847
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	1.89	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	442	442	0.01	0.02	0.03	448
Vendor	0.01	0.51	0.17	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.02	463
Hauling	0.18	24.5	4.33	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,726	22,726	0.33	3.60	1.10	23,807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.17	135
Vendor	< 0.005	0.15	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	< 0.005	0.02	0.11	139
Hauling	0.05	7.39	1.29	0.05	0.10	2.00	2.10	0.10	0.56	0.66	—	6,804	6,804	0.10	1.08	5.48	7,133
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.03	22.4

Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.02	23.0
Hauling	0.01	1.35	0.24	0.01	0.02	0.37	0.38	0.02	0.10	0.12	—	1,127	1,127	0.02	0.18	0.91	1,181

3.10. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	1.44	13.0	0.03	0.05	—	0.05	0.05	—	0.05	—	3,112	3,112	0.13	0.03	—	3,123
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.26	2.37	0.01	0.01	—	0.01	0.01	—	0.01	—	515	515	0.02	< 0.005	—	517
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.13	1.99	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	462	462	0.01	0.02	1.33	469
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.85	463
Hauling	0.18	23.7	4.32	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,725	22,725	0.33	3.60	42.5	23,847
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.17	1.89	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	442	442	0.01	0.02	0.03	448
Vendor	0.01	0.51	0.17	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	443	443	0.01	0.07	0.02	463
Hauling	0.18	24.5	4.33	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,726	22,726	0.33	3.60	1.10	23,807
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	133	133	< 0.005	0.01	0.17	135
Vendor	< 0.005	0.15	0.05	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	133	133	< 0.005	0.02	0.11	139
Hauling	0.05	7.39	1.29	0.05	0.10	2.00	2.10	0.10	0.56	0.66	—	6,804	6,804	0.10	1.08	5.48	7,133
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	22.1	22.1	< 0.005	< 0.005	0.03	22.4
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	22.0	22.0	< 0.005	< 0.005	0.02	23.0
Hauling	0.01	1.35	0.24	0.01	0.02	0.37	0.38	0.02	0.10	0.12	—	1,127	1,127	0.02	0.18	0.91	1,181

3.11. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.74	6.70	0.02	0.02	—	0.02	0.02	—	0.02	—	1,607	1,607	0.07	0.01	—	1,612
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	266	266	0.01	< 0.005	—	267
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.15	1.77	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	434	434	0.01	0.02	0.03	440
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.18	23.4	4.33	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,060	22,060	0.33	3.43	1.00	23,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.27	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.6	67.6	< 0.005	< 0.005	0.08	68.6
Vendor	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	66.4	66.4	< 0.005	0.01	0.05	69.3
Hauling	0.03	3.64	0.67	0.03	0.05	1.03	1.08	0.05	0.29	0.34	—	3,410	3,410	0.05	0.53	2.58	3,572

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.01	11.5
Hauling	0.01	0.66	0.12	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	565	565	0.01	0.09	0.43	591

3.12. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	4.80	43.3	0.10	0.15	—	0.15	0.15	—	0.15	—	10,394	10,394	0.42	0.08	—	10,430
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.74	6.70	0.02	0.02	—	0.02	0.02	—	0.02	—	1,607	1,607	0.07	0.01	—	1,612
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	1.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	266	266	0.01	< 0.005	—	267
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.15	1.77	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	434	434	0.01	0.02	0.03	440
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.18	23.4	4.33	0.16	0.33	6.70	7.02	0.33	1.88	2.20	—	22,060	22,060	0.33	3.43	1.00	23,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.27	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	67.6	67.6	< 0.005	< 0.005	0.08	68.6
Vendor	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	66.4	66.4	< 0.005	0.01	0.05	69.3
Hauling	0.03	3.64	0.67	0.03	0.05	1.03	1.08	0.05	0.29	0.34	—	3,410	3,410	0.05	0.53	2.58	3,572
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.4
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.01	11.5
Hauling	0.01	0.66	0.12	< 0.005	0.01	0.19	0.20	0.01	0.05	0.06	—	565	565	0.01	0.09	0.43	591

3.13. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.27	12.7	0.05	0.05	—	0.05	0.05	—	0.05	—	4,588	4,588	0.19	0.04	—	4,604
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.38	3.79	0.01	0.01	—	0.01	0.01	—	0.01	—	1,370	1,370	0.06	0.01	—	1,375
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	227	227	0.01	< 0.005	—	228
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.72	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	184	184	< 0.005	< 0.005	0.43	185
Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	311	311	< 0.005	0.05	0.49	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	52.9	52.9	< 0.005	< 0.005	0.06	53.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.9	92.9	< 0.005	0.01	0.06	97.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.76	8.76	< 0.005	< 0.005	0.01	8.90
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.01	16.1

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.27	12.7	0.05	0.05	—	0.05	0.05	—	0.05	—	4,588	4,588	0.19	0.04	—	4,604
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.38	3.79	0.01	0.01	—	0.01	0.01	—	0.01	—	1,370	1,370	0.06	0.01	—	1,375
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.69	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	227	227	0.01	< 0.005	—	228
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.72	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	184	184	< 0.005	< 0.005	0.43	185

Vendor	0.01	0.34	0.12	< 0.005	< 0.005	0.10	0.10	< 0.005	0.03	0.03	—	311	311	< 0.005	0.05	0.49	326
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.20	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	52.9	52.9	< 0.005	< 0.005	0.06	53.7
Vendor	< 0.005	0.10	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	92.9	92.9	< 0.005	0.01	0.06	97.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.76	8.76	< 0.005	< 0.005	0.01	8.90
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.01	16.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Building Construction (2029) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	1.15	6.80	0.02	0.02	—	0.02	0.02	—	0.02	—	1,849	1,849	0.08	0.02	—	1,855
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	306	306	0.01	< 0.005	—	307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.19	2.16	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	507	507	0.01	0.02	0.04	514
Vendor	0.01	0.71	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	609	609	0.01	0.09	0.03	636
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.9	91.9	< 0.005	< 0.005	0.12	93.3
Vendor	< 0.005	0.13	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	< 0.005	0.02	0.09	115
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.02	15.4
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	19.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Building Construction (2029) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.15	6.80	0.02	0.02	—	0.02	0.02	—	0.02	—	1,849	1,849	0.08	0.02	—	1,855
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	306	306	0.01	< 0.005	—	307
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24	0.19	2.16	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	507	507	0.01	0.02	0.04	514
Vendor	0.01	0.71	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	609	609	0.01	0.09	0.03	636

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	91.9	91.9	< 0.005	< 0.005	0.12	93.3
Vendor	< 0.005	0.13	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	110	110	< 0.005	0.02	0.09	115
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.2	15.2	< 0.005	< 0.005	0.02	15.4
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	19.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.29	2.55	15.0	0.04	0.05	—	0.05	0.05	—	0.05	—	4,080	4,080	0.17	0.03	—	4,094
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	2.74	0.01	0.01	—	0.01	0.01	—	0.01	—	675	675	0.03	0.01	—	678
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.15	2.15	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	521	521	0.01	0.02	1.36	529
Vendor	0.01	0.65	0.22	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	1.03	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.17	2.04	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	498	498	0.01	0.02	0.04	505
Vendor	0.01	0.67	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	0.03	616
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.80	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.23	202
Vendor	0.01	0.27	0.09	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	234	234	< 0.005	0.03	0.18	245
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.0	33.0	< 0.005	< 0.005	0.04	33.5
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.8	38.8	< 0.005	0.01	0.03	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	6.41	37.8	0.11	0.14	—	0.14	0.14	—	0.14	—	10,270	10,270	0.42	0.08	—	10,305
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	2.55	15.0	0.04	0.05	—	0.05	0.05	—	0.05	—	4,080	4,080	0.17	0.03	—	4,094
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	2.74	0.01	0.01	—	0.01	0.01	—	0.01	—	675	675	0.03	0.01	—	678
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.15	2.15	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	521	521	0.01	0.02	1.36	529
Vendor	0.01	0.65	0.22	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	1.03	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.17	2.04	0.00	0.00	0.55	0.55	0.00	0.13	0.13	—	498	498	0.01	0.02	0.04	505
Vendor	0.01	0.67	0.23	< 0.005	< 0.005	0.18	0.19	< 0.005	0.05	0.06	—	590	590	0.01	0.09	0.03	616
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.80	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	199	199	< 0.005	0.01	0.23	202
Vendor	0.01	0.27	0.09	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	234	234	< 0.005	0.03	0.18	245
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	33.0	33.0	< 0.005	< 0.005	0.04	33.5
Vendor	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	38.8	38.8	< 0.005	0.01	0.03	40.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Building Construction (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.24	12.4	0.04	0.05	—	0.05	0.05	—	0.05	—	3,916	3,916	0.16	0.03	—	3,929
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.23	2.26	0.01	0.01	—	0.01	0.01	—	0.01	—	648	648	0.03	0.01	—	651
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.99	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	240	240	0.01	0.01	0.63	244
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.75	449
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.94	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	230	230	0.01	0.01	0.02	233

Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	97.0	97.0	< 0.005	< 0.005	0.11	98.4
Vendor	< 0.005	0.20	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	180	180	< 0.005	0.03	0.14	188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	0.02	16.3
Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	0.02	31.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Building Construction (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	1.24	12.4	0.04	0.05	—	0.05	0.05	—	0.05	—	3,916	3,916	0.16	0.03	—	3,929
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.23	2.26	0.01	0.01	—	0.01	0.01	—	0.01	—	648	648	0.03	0.01	—	651
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.07	0.99	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	240	240	0.01	0.01	0.63	244
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.75	449
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	0.94	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	230	230	0.01	0.01	0.02	233
Vendor	0.01	0.49	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	429	429	0.01	0.06	0.02	448
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.39	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	97.0	97.0	< 0.005	< 0.005	0.11	98.4
Vendor	< 0.005	0.20	0.07	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	180	180	< 0.005	0.03	0.14	188
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.1	16.1	< 0.005	< 0.005	0.02	16.3

Vendor	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	29.8	29.8	< 0.005	< 0.005	0.02	31.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Building Construction (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.55	5.51	0.02	0.02	—	0.02	0.02	—	0.02	—	1,738	1,738	0.07	0.01	—	1,744
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.10	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	288	288	0.01	< 0.005	—	289
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.92	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	< 0.005	< 0.005	0.56	238
Vendor	0.01	0.45	0.15	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.65	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.07	0.88	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	226	226	0.01	0.01	0.01	230
Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.02	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.04	43.0
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.1	77.1	< 0.005	0.01	0.05	80.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.01	7.01	< 0.005	< 0.005	0.01	7.12
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Building Construction (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.57	2.96	29.6	0.10	0.11	—	0.11	0.11	—	0.11	—	9,351	9,351	0.38	0.08	—	9,383
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.55	5.51	0.02	0.02	—	0.02	0.02	—	0.02	—	1,738	1,738	0.07	0.01	—	1,744
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.10	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	288	288	0.01	< 0.005	—	289
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.06	0.92	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	237	237	< 0.005	< 0.005	0.56	238
Vendor	0.01	0.45	0.15	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.65	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.07	0.88	0.00	0.00	0.25	0.25	0.00	0.06	0.06	—	226	226	0.01	0.01	0.01	230

Vendor	0.01	0.47	0.16	< 0.005	< 0.005	0.13	0.14	< 0.005	0.04	0.04	—	415	415	0.01	0.06	0.02	434
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	42.4	42.4	< 0.005	< 0.005	0.04	43.0
Vendor	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	77.1	77.1	< 0.005	0.01	0.05	80.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.01	7.01	< 0.005	< 0.005	0.01	7.12
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Paving (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.25	3.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	497	497	0.02	< 0.005	—	499
Paving	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.03	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.5	54.5	< 0.005	< 0.005	—	54.7
Paving	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.02	9.02	< 0.005	< 0.005	—	9.05
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.04	0.56	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	0.34	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Paving (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.25	3.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	497	497	0.02	< 0.005	—	499
Paving	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.03	0.38	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	54.5	54.5	< 0.005	< 0.005	—	54.7
Paving	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.02	9.02	< 0.005	< 0.005	—	9.05
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.04	0.56	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	145	145	< 0.005	< 0.005	0.34	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	15.3	15.3	< 0.005	< 0.005	0.02	15.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.53	2.53	< 0.005	< 0.005	< 0.005	2.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Architectural Coating (2031) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	0.01	—	—	—	—	—	—	—	463	463	0.02	< 0.005	—	465
Architectural Coatings	4.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Architectural Coatings	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	8.61	8.61	< 0.005	< 0.005	—	8.64
Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.3	26.3	< 0.005	< 0.005	0.06	26.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	< 0.005	2.89

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.26. Architectural Coating (2031) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	0.01	—	—	—	—	—	—	—	463	463	0.02	< 0.005	—	465
Architectural Coatings	4.94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	52.0	52.0	< 0.005	< 0.005	—	52.2
Architectural Coatings	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	—	—	—	< 0.005	—	—	—	—	—	—	—	8.61	8.61	< 0.005	< 0.005	—	8.64
Architectural Coatings	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.3	26.3	< 0.005	< 0.005	0.06	26.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.84	2.84	< 0.005	< 0.005	< 0.005	2.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.48
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Trenching (2030) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	86.9	86.9	< 0.005	< 0.005	—	87.2
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	1.27	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	307	307	0.01	0.01	0.80	312
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.09	56.1
Hauling	0.11	14.4	2.77	0.10	0.21	4.29	4.49	0.21	1.20	1.41	—	14,118	14,118	0.21	2.20	24.6	14,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.10	1.20	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	294	294	0.01	0.01	0.02	298
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.7	53.7	< 0.005	0.01	< 0.005	56.0
Hauling	0.11	15.0	2.77	0.10	0.21	4.29	4.49	0.21	1.20	1.41	—	14,119	14,119	0.21	2.20	0.64	14,779
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	45.4	45.4	< 0.005	< 0.005	0.05	46.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.23	8.23	< 0.005	< 0.005	0.01	8.60
Hauling	0.02	2.31	0.42	0.02	0.03	0.66	0.69	0.03	0.18	0.22	—	2,166	2,166	0.03	0.34	1.64	2,269
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.52	7.52	< 0.005	< 0.005	0.01	7.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.42
Hauling	< 0.005	0.42	0.08	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	359	359	0.01	0.06	0.27	376

3.28. Trenching (2030) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.39	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	567	567	0.02	< 0.005	—	569
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.14	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	86.9	86.9	< 0.005	< 0.005	—	87.2
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.09	1.27	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	307	307	0.01	0.01	0.80	312
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.09	56.1
Hauling	0.11	14.4	2.77	0.10	0.21	4.29	4.49	0.21	1.20	1.41	—	14,118	14,118	0.21	2.20	24.6	14,803
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.10	1.20	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	294	294	0.01	0.01	0.02	298
Vendor	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.7	53.7	< 0.005	0.01	< 0.005	56.0
Hauling	0.11	15.0	2.77	0.10	0.21	4.29	4.49	0.21	1.20	1.41	—	14,119	14,119	0.21	2.20	0.64	14,779
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	45.4	45.4	< 0.005	< 0.005	0.05	46.1
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.23	8.23	< 0.005	< 0.005	0.01	8.60
Hauling	0.02	2.31	0.42	0.02	0.03	0.66	0.69	0.03	0.18	0.22	—	2,166	2,166	0.03	0.34	1.64	2,269
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.52	7.52	< 0.005	< 0.005	0.01	7.63
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.42

Hauling	< 0.005	0.42	0.08	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	359	359	0.01	0.06	0.27	376

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
2-Existing Project Site Demo	Demolition	6/15/2029	6/29/2029	5.00	11.0	—
12-Decomissioning Demolition	Demolition	10/1/2032	12/30/2032	5.00	65.0	—
1-Subsurface Exploration	Site Preparation	5/1/2029	7/3/2029	5.00	46.0	—
3-Site Preparation/ Rough Grading	Grading	7/4/2029	7/25/2029	5.00	16.0	—
4-Foundations	Building Construction	8/1/2029	3/20/2030	5.00	166	—

10-Commissioning / Startup and Testing	Building Construction	5/1/2031	9/30/2031	5.00	109	—
6-Equipment , Structural Steel & Building Erection, Piping	Building Construction	10/1/2029	7/22/2030	5.00	211	—
7-Electrical & Instrumentation	Building Construction	6/1/2030	4/5/2031	5.00	220	—
8-Paving	Paving	6/1/2031	7/27/2031	5.00	40.0	—
9-Painting/Insulation	Architectural Coating	7/1/2031	8/26/2031	5.00	41.0	—
5-Trenching/Undergrounds	Trenching	2/1/2030	4/19/2030	5.00	56.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
3-Site Preparation/ Rough Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
3-Site Preparation/ Rough Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	9.00	107	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
2-Existing Project Site Demo	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	9.00	107	0.37
3-Site Preparation/ Rough Grading	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29

4-Foundations	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
4-Foundations	Generator Sets	Diesel	Tier 4 Final	4.00	9.00	49.0	0.74
4-Foundations	Welders	Diesel	Tier 4 Final	4.00	9.00	24.0	0.45
10-Commissioning / Startup and Testing	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
10-Commissioning / Startup and Testing	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
10-Commissioning / Startup and Testing	Generator Sets	Diesel	Tier 4 Final	3.00	9.00	49.0	0.74
10-Commissioning / Startup and Testing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
10-Commissioning / Startup and Testing	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
6-Equipment , Structural Steel & Building Erection, Piping	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
7-Electrical & Instrumentation	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
7-Electrical & Instrumentation	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74

7-Electrical & Instrumentation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	2.00	9.00	225	0.37
7-Electrical & Instrumentation	Welders	Diesel	Tier 4 Final	5.00	9.00	24.0	0.45
8-Paving	Rollers	Diesel	Tier 4 Final	1.00	9.00	125	0.38
9-Painting/Insulation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
12-Decomissioning Demolition	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	107	0.37
2-Existing Project Site Demo	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
2-Existing Project Site Demo	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
2-Existing Project Site Demo	Skid Steer Loaders	Diesel	Tier 4 Final	1.00	9.00	65.0	0.37
2-Existing Project Site Demo	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
12-Decomissioning Demolition	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
12-Decomissioning Demolition	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
12-Decomissioning Demolition	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
12-Decomissioning Demolition	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
12-Decomissioning Demolition	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
12-Decomissioning Demolition	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	9.00	225	0.37

12-Decomissioning Demolition	Welders	Electric	Average	1.00	9.00	46.0	0.45
12-Decomissioning Demolition	Welders	Diesel	Tier 4 Final	1.00	9.00	24.0	0.45
1-Subsurface Exploration	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
1-Subsurface Exploration	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
1-Subsurface Exploration	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	9.00	300	0.50
3-Site Preparation/ Rough Grading	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
3-Site Preparation/ Rough Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	107	0.37
4-Foundations	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	346	0.38
4-Foundations	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
4-Foundations	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	9.00	170	0.40
10-Commissioning / Startup and Testing	Welders	Electric	Average	2.00	9.00	46.0	0.45
10-Commissioning / Startup and Testing	Forklifts	Electric	Average	1.00	9.00	82.0	0.20

10-Commissioning / Startup and Testing	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
10-Commissioning / Startup and Testing	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	1.00	9.00	122	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Electric	Average	5.00	9.00	46.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	1.00	9.00	84.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	2.00	9.00	67.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Electric	Average	5.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38

6-Equipment , Structural Steel & Building Erection, Piping	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
7-Electrical & Instrumentation	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
7-Electrical & Instrumentation	Welders	Electric	Average	5.00	9.00	46.0	0.45
7-Electrical & Instrumentation	Aerial Lifts	Electric	Average	4.00	9.00	46.0	0.31
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
7-Electrical & Instrumentation	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
9-Painting/Insulation	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
5-Trenching/Undergrounds	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
5-Trenching/Undergrounds	Pumps	Diesel	Tier 4 Final	4.00	9.00	11.0	0.74

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
3-Site Preparation/ Rough Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
3-Site Preparation/ Rough Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	9.00	107	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
2-Existing Project Site Demo	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73

12-Decomissioning Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	9.00	33.0	0.73
12-Decomissioning Demolition	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	9.00	107	0.37
3-Site Preparation/ Rough Grading	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
4-Foundations	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
4-Foundations	Generator Sets	Diesel	Tier 4 Final	4.00	9.00	49.0	0.74
4-Foundations	Welders	Diesel	Tier 4 Final	4.00	9.00	24.0	0.45
10-Commissioning / Startup and Testing	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29
10-Commissioning / Startup and Testing	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
10-Commissioning / Startup and Testing	Generator Sets	Diesel	Tier 4 Final	3.00	9.00	49.0	0.74
10-Commissioning / Startup and Testing	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
10-Commissioning / Startup and Testing	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
6-Equipment , Structural Steel & Building Erection, Piping	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37

6-Equipment , Structural Steel & Building Erection, Piping	Welders	Diesel	Tier 4 Final	3.00	9.00	24.0	0.45
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	1.00	9.00	200	0.29
7-Electrical & Instrumentation	Forklifts	Diesel	Tier 4 Final	2.00	9.00	74.0	0.20
7-Electrical & Instrumentation	Generator Sets	Diesel	Tier 4 Final	5.00	9.00	49.0	0.74
7-Electrical & Instrumentation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	225	0.37
7-Electrical & Instrumentation	Welders	Diesel	Tier 4 Final	5.00	9.00	24.0	0.45
8-Paving	Rollers	Diesel	Tier 4 Final	1.00	9.00	125	0.38
9-Painting/Insulation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
12-Decomissioning Demolition	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	107	0.37
2-Existing Project Site Demo	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
2-Existing Project Site Demo	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
2-Existing Project Site Demo	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
2-Existing Project Site Demo	Skid Steer Loaders	Diesel	Tier 4 Final	1.00	9.00	65.0	0.37
2-Existing Project Site Demo	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
12-Decomissioning Demolition	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
12-Decomissioning Demolition	Cranes	Diesel	Tier 4 Final	1.00	9.00	275	0.29

12-Decomissioning Demolition	Forklifts	Diesel	Tier 4 Final	1.00	9.00	74.0	0.20
12-Decomissioning Demolition	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
12-Decomissioning Demolition	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
12-Decomissioning Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	225	0.37
12-Decomissioning Demolition	Welders	Electric	Average	1.00	9.00	46.0	0.45
12-Decomissioning Demolition	Welders	Diesel	Tier 4 Final	1.00	9.00	24.0	0.45
1-Subsurface Exploration	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
1-Subsurface Exploration	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
1-Subsurface Exploration	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
1-Subsurface Exploration	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
1-Subsurface Exploration	Bore/Drill Rigs	Diesel	Tier 4 Final	1.00	9.00	300	0.50
3-Site Preparation/ Rough Grading	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	2.00	0.48
3-Site Preparation/ Rough Grading	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	9.00	321	0.37
4-Foundations	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	9.00	107	0.37
4-Foundations	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	10.0	0.48
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
4-Foundations	Excavators	Diesel	Tier 4 Final	1.00	9.00	346	0.38

4-Foundations	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
4-Foundations	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
4-Foundations	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	9.00	170	0.40
10-Commissioning / Startup and Testing	Welders	Electric	Average	2.00	9.00	46.0	0.45
10-Commissioning / Startup and Testing	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
10-Commissioning / Startup and Testing	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
10-Commissioning / Startup and Testing	Aerial Lifts	Electric	Average	1.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Diesel	Tier 4 Final	1.00	9.00	122	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
6-Equipment , Structural Steel & Building Erection, Piping	Welders	Electric	Average	5.00	9.00	46.0	0.45
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	1.00	9.00	84.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Diesel	Tier 4 Final	2.00	9.00	67.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Aerial Lifts	Electric	Average	5.00	9.00	46.0	0.31
6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48

6-Equipment , Structural Steel & Building Erection, Piping	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
6-Equipment , Structural Steel & Building Erection, Piping	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
6-Equipment , Structural Steel & Building Erection, Piping	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
7-Electrical & Instrumentation	Cranes	Diesel	Tier 4 Final	2.00	9.00	275	0.29
7-Electrical & Instrumentation	Forklifts	Electric	Average	1.00	9.00	82.0	0.20
7-Electrical & Instrumentation	Welders	Electric	Average	5.00	9.00	46.0	0.45
7-Electrical & Instrumentation	Aerial Lifts	Electric	Average	4.00	9.00	46.0	0.31
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	1.00	9.00	49.0	0.48
7-Electrical & Instrumentation	Air Compressors	Diesel	Tier 4 Final	2.00	9.00	10.0	0.48
7-Electrical & Instrumentation	Off-Highway Trucks	Diesel	Tier 4 Final	1.00	9.00	500	0.38
9-Painting/Insulation	Generator Sets	Diesel	Tier 4 Final	1.00	9.00	49.0	0.74
5-Trenching/Undergrounds	Excavators	Diesel	Tier 4 Final	1.00	9.00	45.0	0.38
5-Trenching/Undergrounds	Pumps	Diesel	Tier 4 Final	4.00	9.00	11.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix

1-Subsurface Exploration	—	—	—	—
1-Subsurface Exploration	Worker	28.0	10.0	LDA,LDT1,LDT2
1-Subsurface Exploration	Vendor	8.00	10.0	HHDT,MHDT
1-Subsurface Exploration	Hauling	13.0	296	HHDT
1-Subsurface Exploration	Onsite truck	—	—	HHDT
3-Site Preparation/ Rough Grading	—	—	—	—
3-Site Preparation/ Rough Grading	Worker	30.0	10.0	LDA,LDT1,LDT2
3-Site Preparation/ Rough Grading	Vendor	10.0	10.0	HHDT,MHDT
3-Site Preparation/ Rough Grading	Hauling	8.00	296	HHDT
3-Site Preparation/ Rough Grading	Onsite truck	—	—	HHDT
4-Foundations	—	—	—	—
4-Foundations	Worker	68.0	10.0	LDA,LDT1,LDT2
4-Foundations	Vendor	16.0	10.0	HHDT,MHDT
4-Foundations	Hauling	25.0	296	HHDT
4-Foundations	Onsite truck	—	—	HHDT
5-Trenching/Undergrounds	—	—	—	—
5-Trenching/Undergrounds	Worker	46.0	10.0	LDA,LDT1,LDT2
5-Trenching/Undergrounds	Vendor	2.00	10.0	HHDT,MHDT
5-Trenching/Undergrounds	Hauling	16.0	296	HHDT
5-Trenching/Undergrounds	Onsite truck	—	—	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	—	—	—	—
6-Equipment , Structural Steel & Building Erection, Piping	Worker	78.0	10.0	LDA,LDT1,LDT2
6-Equipment , Structural Steel & Building Erection, Piping	Vendor	22.0	10.0	HHDT,MHDT
6-Equipment , Structural Steel & Building Erection, Piping	Hauling	0.00	20.0	HHDT

6-Equipment , Structural Steel & Building Erection, Piping	Onsite truck	—	—	HHDT
7-Electrical & Instrumentation	—	—	—	—
7-Electrical & Instrumentation	Worker	36.0	10.0	LDA,LDT1,LDT2
7-Electrical & Instrumentation	Vendor	16.0	10.0	HHDT,MHDT
7-Electrical & Instrumentation	Hauling	0.00	20.0	HHDT
7-Electrical & Instrumentation	Onsite truck	—	—	HHDT
2-Existing Project Site Demo	—	—	—	—
2-Existing Project Site Demo	Worker	22.0	10.0	LDA,LDT1,LDT2
2-Existing Project Site Demo	Vendor	8.00	10.0	HHDT,MHDT
2-Existing Project Site Demo	Hauling	47.5	20.0	HHDT
2-Existing Project Site Demo	Onsite truck	—	—	HHDT
8-Paving	—	—	—	—
8-Paving	Worker	22.0	10.0	LDA,LDT1,LDT2
8-Paving	Vendor	—	10.0	HHDT,MHDT
8-Paving	Hauling	0.00	20.0	HHDT
8-Paving	Onsite truck	—	—	HHDT
12-Decomissioning Demolition	—	—	—	—
12-Decomissioning Demolition	Worker	28.0	10.0	LDA,LDT1,LDT2
12-Decomissioning Demolition	Vendor	18.0	10.0	HHDT,MHDT
12-Decomissioning Demolition	Hauling	3.37	20.0	HHDT
12-Decomissioning Demolition	Onsite truck	—	—	HHDT
10-Commissioning / Startup and Testing	—	—	—	—
10-Commissioning / Startup and Testing	Worker	28.0	10.0	LDA,LDT1,LDT2
10-Commissioning / Startup and Testing	Vendor	12.0	10.0	HHDT,MHDT

10-Commissioning / Startup and Testing	Hauling	0.00	20.0	HHDT
10-Commissioning / Startup and Testing	Onsite truck	—	—	HHDT
9-Painting/Insulation	—	—	—	—
9-Painting/Insulation	Worker	4.00	10.0	LDA,LDT1,LDT2
9-Painting/Insulation	Vendor	—	10.0	HHDT,MHDT
9-Painting/Insulation	Hauling	0.00	20.0	HHDT
9-Painting/Insulation	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
1-Subsurface Exploration	—	—	—	—
1-Subsurface Exploration	Worker	28.0	10.0	LDA,LDT1,LDT2
1-Subsurface Exploration	Vendor	8.00	10.0	HHDT,MHDT
1-Subsurface Exploration	Hauling	13.0	296	HHDT
1-Subsurface Exploration	Onsite truck	—	—	HHDT
3-Site Preparation/ Rough Grading	—	—	—	—
3-Site Preparation/ Rough Grading	Worker	30.0	10.0	LDA,LDT1,LDT2
3-Site Preparation/ Rough Grading	Vendor	10.0	10.0	HHDT,MHDT
3-Site Preparation/ Rough Grading	Hauling	8.00	296	HHDT
3-Site Preparation/ Rough Grading	Onsite truck	—	—	HHDT
4-Foundations	—	—	—	—
4-Foundations	Worker	68.0	10.0	LDA,LDT1,LDT2
4-Foundations	Vendor	16.0	10.0	HHDT,MHDT
4-Foundations	Hauling	25.0	296	HHDT
4-Foundations	Onsite truck	—	—	HHDT
5-Trenching/Undergrounds	—	—	—	—

5-Trenching/Undergrounds	Worker	46.0	10.0	LDA,LDT1,LDT2
5-Trenching/Undergrounds	Vendor	2.00	10.0	HHDT,MHDT
5-Trenching/Undergrounds	Hauling	16.0	296	HHDT
5-Trenching/Undergrounds	Onsite truck	—	—	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	—	—	—	—
6-Equipment , Structural Steel & Building Erection, Piping	Worker	78.0	10.0	LDA,LDT1,LDT2
6-Equipment , Structural Steel & Building Erection, Piping	Vendor	22.0	10.0	HHDT,MHDT
6-Equipment , Structural Steel & Building Erection, Piping	Hauling	0.00	20.0	HHDT
6-Equipment , Structural Steel & Building Erection, Piping	Onsite truck	—	—	HHDT
7-Electrical & Instrumentation	—	—	—	—
7-Electrical & Instrumentation	Worker	36.0	10.0	LDA,LDT1,LDT2
7-Electrical & Instrumentation	Vendor	16.0	10.0	HHDT,MHDT
7-Electrical & Instrumentation	Hauling	0.00	20.0	HHDT
7-Electrical & Instrumentation	Onsite truck	—	—	HHDT
2-Existing Project Site Demo	—	—	—	—
2-Existing Project Site Demo	Worker	22.0	10.0	LDA,LDT1,LDT2
2-Existing Project Site Demo	Vendor	8.00	10.0	HHDT,MHDT
2-Existing Project Site Demo	Hauling	47.5	20.0	HHDT
2-Existing Project Site Demo	Onsite truck	—	—	HHDT
8-Paving	—	—	—	—
8-Paving	Worker	22.0	10.0	LDA,LDT1,LDT2
8-Paving	Vendor	—	10.0	HHDT,MHDT
8-Paving	Hauling	0.00	20.0	HHDT
8-Paving	Onsite truck	—	—	HHDT

12-Decomissioning Demolition	—	—	—	—
12-Decomissioning Demolition	Worker	28.0	10.0	LDA,LDT1,LDT2
12-Decomissioning Demolition	Vendor	18.0	10.0	HHDT,MHDT
12-Decomissioning Demolition	Hauling	3.37	20.0	HHDT
12-Decomissioning Demolition	Onsite truck	—	—	HHDT
10-Commissioning / Startup and Testing	—	—	—	—
10-Commissioning / Startup and Testing	Worker	28.0	10.0	LDA,LDT1,LDT2
10-Commissioning / Startup and Testing	Vendor	12.0	10.0	HHDT,MHDT
10-Commissioning / Startup and Testing	Hauling	0.00	20.0	HHDT
10-Commissioning / Startup and Testing	Onsite truck	—	—	HHDT
9-Painting/Insulation	—	—	—	—
9-Painting/Insulation	Worker	4.00	10.0	LDA,LDT1,LDT2
9-Painting/Insulation	Vendor	—	10.0	HHDT,MHDT
9-Painting/Insulation	Hauling	0.00	20.0	HHDT
9-Painting/Insulation	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
9-Painting/Insulation	0.00	0.00	34,524	11,508	20,626

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
2-Existing Project Site Demo	0.00	0.00	0.00	2,092	—
12-Decomissioning Demolition	0.00	0.00	0.00	19,000	—
1-Subsurface Exploration	—	500	0.00	0.00	—
3-Site Preparation/ Rough Grading	—	1,500	26.0	0.00	—
8-Paving	0.00	0.00	0.00	0.00	7.89
5-Trenching/Undergrounds	—	10,000	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Heavy Industry	0.00	0%
General Office Building	0.00	0%
Other Asphalt Surfaces	7.89	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2029	1,393	532	0.03	< 0.005
2030	2,581	532	0.03	< 0.005
2032	345	532	0.03	< 0.005
2031	1,671	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	12.5	annual days of extreme heat
Extreme Precipitation	5.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	15.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.8
AQ-PM	29.0
AQ-DPM	50.7
Drinking Water	65.5
Lead Risk Housing	78.7
Pesticides	97.0
Toxic Releases	17.6
Traffic	38.6
Effect Indicators	—
CleanUp Sites	83.5
Groundwater	89.6
Haz Waste Facilities/Generators	88.6
Impaired Water Bodies	58.7
Solid Waste	35.7
Sensitive Population	—
Asthma	61.2
Cardio-vascular	27.2

Low Birth Weights	58.6
Socioeconomic Factor Indicators	—
Education	89.7
Housing	82.4
Linguistic	74.1
Poverty	77.2
Unemployment	60.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	22.12241755
Employed	50.32721673
Median HI	32.6318491
Education	—
Bachelor's or higher	25.84370589
High school enrollment	3.387655588
Preschool enrollment	66.45707686
Transportation	—
Auto Access	44.50147568
Active commuting	49.108174
Social	—
2-parent households	84.48607725
Voting	39.86911331
Neighborhood	—
Alcohol availability	27.4092134

Park access	81.35506224
Retail density	61.9658668
Supermarket access	74.04080585
Tree canopy	11.8311305
Housing	—
Homeownership	29.911459
Housing habitability	29.33401771
Low-inc homeowner severe housing cost burden	8.648787373
Low-inc renter severe housing cost burden	67.81727191
Uncrowded housing	29.05171308
Health Outcomes	—
Insured adults	6.83947132
Arthritis	77.8
Asthma ER Admissions	39.8
High Blood Pressure	51.5
Cancer (excluding skin)	82.6
Asthma	23.6
Coronary Heart Disease	66.7
Chronic Obstructive Pulmonary Disease	37.6
Diagnosed Diabetes	54.0
Life Expectancy at Birth	33.7
Cognitively Disabled	33.5
Physically Disabled	36.0
Heart Attack ER Admissions	36.7
Mental Health Not Good	23.2
Chronic Kidney Disease	45.1
Obesity	25.8

Pedestrian Injuries	57.0
Physical Health Not Good	30.9
Stroke	64.5
Health Risk Behaviors	—
Binge Drinking	24.0
Current Smoker	23.0
No Leisure Time for Physical Activity	29.0
Climate Change Exposures	—
Wildfire Risk	10.2
SLR Inundation Area	0.0
Children	2.5
Elderly	92.1
English Speaking	15.1
Foreign-born	77.7
Outdoor Workers	4.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	35.5
Traffic Density	42.1
Traffic Access	23.0
Other Indices	—
Hardship	70.5
Other Decision Support	—
2016 Voting	40.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	83.0

Healthy Places Index Score for Project Location (b)	27.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Project Specific
Construction: Off-Road Equipment	Project Specific
Construction: Trips and VMT	Project specific
Construction: Dust From Material Movement	Project specific

ATTACHMENT B – OPERATIONAL CRITERIA POLLUTANT AND TOXIC AIR CONTAMINANT EMISSIONS

Table B-1: Summary Criteria Pollutants Emissions

Table B-1a: Baseline Emissions (tpy)

Pollutant	Existing Gas Compressors	Emergency Generator	Worker Vehicles	Total Baseline Emissions
ROC	0.47	0.0002	0.0022	0.48
NO_X	2.88	0.004	0.0004	2.89
PM_{10}	0.44	0.0004	0.0074	0.45
SOx	0.03	0.00001	0.0000	0.03
CO	0.60	0.005	0.0045	0.61

Table B-1b: Project Emissions (tpy)

Pollutant	New Gas Compressors	New Standby Generator	Worker Vehicles	Total Project Emissions
ROC	5.50	0.14	0.0029	5.64
NO_X	5.50	0.14	0.0005	5.64
PM_{10}	1.24	0.04	0.0162	1.29
SOx	0.08	0.002	0.0000	0.08
CO	22.00	0.56	0.0060	22.56

Table B-1c: Net Project Emissions (tpy)

Pollutant	Total Project Emissions	Total Baseline Emissions	Net Project Emissions (PTE - Baseline)
ROC	5.64	0.48	5.16
NO_X	5.64	2.89	2.75
PM_{10}	1.29	0.45	0.84
SOx	0.08	0.03	0.06
CO	22.56	0.61	21.95

Notes:
Project emissions based on PTE for the 2 new natural gas compressor engines and standby generator
Baseline emissions based on HAE for 2021-2022 for gas compressors and emergency generator
Worker emissions based on 3 vehicles for baseline and 4 for project, calculated from EMFAC2021

Table B-2: Proposed Natural Gas Compressor Emissions Estimates

Table B-2a: Two Waukesha Compressors - Process Information

Source	Engine Rating (BHP)	HHV Heat Rate (BTU/BHP-hr)	Heat Input (mmBTU/hr)	Default HHV (BTU/cf)	Hourly Process Rate (cf/hr)	Annual Hours (PTE)	Annual Process Rate (mmcf/yr)	Process Description
Natural Gas Compressor #1	1,900	7,880	14.97	1,020	14,676	8,760	128.56	4SRB w/NSCR
Natural Gas Compressor #2	1,900	7,880	14.97	1,020	14,676	8,760	128.56	4SRB w/NSCR
Totals	**3,800**	—	**29.94**	—	**29,352**	—	**257.12**	—

Table B-2b: Two Waukesha Compressors - Criteria Pollutant Emissions

Pollutant	BACT EF (lb/mmcf)	Waukesha Compressor 1		Waukesha Compressor 2	
		Annual Emissions (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Hourly Emissions (lb/hr)
ROC	42.8	2.75	0.63	2.75	0.63
NO_X	42.8	2.75	0.63	2.75	0.63
PM_{10}	9.7	0.62	0.14	0.62	0.14
SO_X	0.6	0.04	0.01	0.04	0.01
CO	171.2	11.00	2.51	11.00	2.51

Table B-2c: Summary of Compressor Emissions

Pollutant	BACT EF (g/BHP-hr)	BACT EF (lb/mmcf)	BACT Conc. (ppmv @15% O_2) [gr/dscf PM_{10}]	New Annual PTE (tpy)	New Hourly PTE (lb/hr)	BACT Reference
ROC	0.15	42.8	32.7	5.50	1.26	Manf. Guarantee
NO_X	0.15	42.8	11.4	5.50	1.26	Manf. Guarantee
PM_{10}	0.034	9.7	0.0022	1.24	0.28	AP-42 Table 3.2-3 4SRB
SO_X	0.002	0.6	0.10	0.08	0.02	AP-42 Table 3.2-3 4SRB
CO	0.6	171.2	74.9	22.00	5.02	Vendor data

Table B-3: Proposed Standby Generator Emission Estimates

Table B-3a: Waukesha Standby Generator - Process Information

Source	Engine Rating (BHP)	HHV Heat Rate (BTU/BHP-hr)	Heat Input (mmBTU/hr)	Default HHV (BTU/cf)	Hourly Process Rate (cf/hr)	Annual Hours	Annual Process Rate (mmcf/yr)	Process Description
Waukesha VHP-F3524GSI	840	8,903	7.48	1,020	7,333	1,000	7.33	4SRB w/NSCR
Totals	**840**	—	**7.48**	—	**7,333**	—	**7.33**	—

Table B-3b: Waukesha Standby Generator - Criteria Pollutant Emissions

Pollutant	BACT EF (g/BHP-hr)	BACT EF (lb/mmcf)	BACT Conc. (ppmv @15% O_2) [gr/dscf PM_{10}]	Standby Gen. Annual PTE (tons/yr)	Standby Gen. Hourly PTE (lb/hr)	BACT Reference
ROC	0.15	37.9	29.0	0.14	0.28	BACT (SCAQMD A/N 359876)
NO_X	0.15	37.9	10.1	0.14	0.28	BACT (SCAQMD A/N 359876)
PM_{10}	0.038	9.7	0.0022	0.04	0.07	BACT (AP-42 Table 3.2-3 4SRB)
SO_X	0.002	0.6	0.10	0.00	0.00	BACT (AP-42 Table 3.2-3 4SRB)
CO	0.6	151.5	66.2	0.56	1.11	Vendor data

Table B-4: Summary of 2021-2022 Natural Gas Compressor Engine Emissions

Table B-4a: Historic Fuel Use

Year	HP1	HP2	HP3
	Fuel use (MMscf)	Fuel use (MMscf)	Fuel use (MMscf)
2021	26.316	29.364	28.003
2022	32.076	28.276	35.150

Table B-4b: Emission Factors (lb/MMscf)

Pollutant	HP1	HP2	HP3
ROC	16.3	8.26	7.47
NO_X	55.5	58.8	77.5
PM_{10}	10	10	9.7
SO_X	0.6	0.6	0.6
CO	25.6	14.1	1.38

Notes:

1. Emission factors NOx, ROC, CO obtained from source tests conducted May 11-12, 2021.
2. Emission factors PM10, SOx from AP-42 Table 3.2-3.

Table B-4c: 2021 Compressor Emissions (tpy)

Pollutant	HP1	HP2	HP3	Total
ROC	0.21	0.12	0.10	0.44
NO_X	0.73	0.86	1.09	2.68
PM_{10}	0.13	0.15	0.14	0.41
SO_X	0.01	0.01	0.01	0.03
CO	0.34	0.21	0.02	0.56

Table B-4d: 2022 Compressor Emissions (tpy)

Pollutant	HP1	HP2	HP3	Total
ROC	0.26	0.12	0.13	0.51
NO_X	0.89	0.83	1.36	3.08
PM_{10}	0.16	0.14	0.17	0.47
SO_X	0.01	0.01	0.01	0.03
CO	0.41	0.20	0.02	0.63

Table B-4e: 2021/2022 Historic Average Compressor Emissions

Pollutant	Compressor Engines Emissions (tpy)
ROC	0.47
NO_X	2.88
PM_{10}	0.44
SO_X	0.03
CO	0.60

Notes:

Baseline emissions based on HAE for 2021-2022 for natural gas compressors

From SoCalGas

Table B-5: Existing Emergency Generator Emission Estimates

Table B-5a: Cummins Emergency Generator - Process Information

Source	Engine Rating (BHP)	HHV Heat Rate (BTU/BHP-hr)	Heat Input (mmBTU/hr)	Default HHV (BTU/gal)	Hourly Process Rate (gal/hr)	Actual Average Fuel use (gal/yr)	Average Annual Hours	Process Description
Cummins Model 4B3.9-G2	68	7,000	0.48	137,000	3.50	61.26	17.5	Diesel 4SLB
Totals	**68**	—	**0.48**	—	**3.5**		—	—

Table B-5b: Cummins Emergency Generator - Criteria Pollutant Emissions

Pollutant	BACT EF (g/BHP-hr)	BACT Reference	Cummins Model 4B3.9-G2	
			Annual Emissions (tpy)	Hourly Emissions (lb/hr)
ROC[1]	0.18	Tier 3	0.0002	0.03
NO_X[1]	3.33	Tier 3	0.0044	0.50
PM_{10}	0.30	Tier 3	0.0004	0.04
SO_X	0.2 lb/1000gal	SCAQMD AER	6.43E-06	7.36E-04
CO	3.70	Tier 3	0.005	0.55

Note: 1. Tier 3 EF for NOx + ROC = 3.5 g/BHp-hr; assume NOx is 95% and ROC is 5% per BAAQMD guidance:
https://www.baaqmd.gov/~/media/files/engineering/policy_and_procedures/engines/emissionfactorsfordieselengines.pdf

Table B-5c: Emergency Generator Fuel Use

Year	Diesel (gal/yr)
2021	103.39
2022	19.12

Table B-6: Worker Commute Exhaust Emission Estimates

Table B-6a: VCM Worker Commuting Mobile Source Emissions - Baseline (3 workers)

Criteria Pollutants	Daily (lbs/day)	Annual (tons/yr)
ROC	0.0166	0.0022
NO_X	0.0030	0.0004
CO	0.0344	0.0045
SO_X	0.0000	0.0000
PM_{10}	0.0569	0.0074
$PM_{2.5}$	0.0143	0.0019

Sources: EMFAC2021, EPA 2011

Notes:

Aggregated LDA, LDT1, LDT2 mix for 2031; gasoline fuel

PM_{10} & $PM_{2.5}$ include engine exhaust, tire & brake wear, and fugitive road dust

Baseline assumes 3 workers in 3 vehicles

Daily VMT = 192 miles/day (6 trips x 32 miles one-way in Ventura County)

Table B-6b:VCM Worker Commuting Mobile Source Emissions - Project (4 workers)

Criteria Pollutants	Daily (lbs/day)	Annual (tons/yr)
ROC	0.0221	0.0029
NO_X	0.0040	0.0005
CO	0.0458	0.0060
SO_X	0.0000	0.0000
PM_{10}	0.0759	0.0099
$PM_{2.5}$	0.0191	0.0025

Sources: EMFAC2021, EPA 2011

Notes:

Aggregated LDA, LDT1, LDT2 mix for 2031; gasoline fuel

PM_{10} & $PM_{2.5}$ include engine exhaust, tire & brake wear, and fugitive road dust

Project assumes 4 workers in 4 vehicles

Daily VMT = 256 miles/day (8 trips x 32 miles one-way in Ventura County)

Table B-6c: VCM Worker Commuting Mobile Source Emissions - Project Increase (from 3 to 4 workers)

Criteria Pollutants	Daily (lbs/day)	Annual (tons/yr)
ROC	0.0055	0.0007
NO_X	0.0010	0.0001
CO	0.0115	0.0015
SO_X	0.0000	0.0000
PM_{10}	0.0190	0.0025
$PM_{2.5}$	0.0048	0.0006

Table B-7: Worker Commute Fugitive Dust Emission Estimates

Table B-7a: Road and Vehicle Data

All Roads Travelled	Vehicle Category	Weight Class	Activity		Usage	
			Daily	Annual	Paved	Unpaved
		Tons	VMT	VMT	%	%
Phase 1						
Passenger Cars/Smaller SUVs	LDA	2	122	31,782	100%	0%
Standard-Duty Pickup Trucks/Midsize SUVs	LDT1	3	9	2,404	100%	0%
Heavy-Duty Pickup Trucks/Larger SUVs	LDT2	4	61	15,734	100%	0%
Work/Trade Trucks	MDT	5			100%	0%
Light Heavy-Duty Trucks 1	LHDT1	8			100%	0%
Light Heavy-Duty Trucks 2	LHDT2	10			100%	0%
Medium Heavy-Duty Trucks	MHDT	15			100%	0%
Heavy Heavy-Duty Trucks	HHDT	30			100%	0%

Table B-7b: Paved Road Dust Emission Estimates

Paved Road Dust	Vehicle Category	Activity		Required Variables						Uncontrolled		Controlled Emissions				
		Daily	Annual	EET	Moisture (M)	Silt Load (sL)	Weight (W)	Speed (S)	Precip (P)	PM_{10}	$PM_{2.5}$	Control	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
		VMT	VMT	code	percent	g/m^2	tons	mph	days/yr	lbs/VMT	lbs/VMT	%	lbs/day	lbs/day	lbs/yr	lbs/yr
Phase 1																
Passenger Cars/Smaller SUVs	LDA	122	31,782	G	—	0.032	2	—	40	0.00019	0.00005	—	0.02	0.01	6.0	1.5
Standard-Duty Pickup Trucks/Midsize SUVs	LDT1	9	2,404	G	—	0.032	3	—	40	0.00029	0.00007	—	0.00	0.00	0.7	0.2
Heavy-Duty Pickup Trucks/Larger SUVs	LDT2	61	15,734	G	—	0.032	4	—	40	0.00039	0.00010	—	0.02	0.01	6.0	1.5
Work/Trade Trucks	MDT	-	-	G	—	0.032	5	—	40	0.00050	0.00012	—	-	-	-	-
Light Heavy-Duty Trucks 1	LHDT1	-	-	G	—	0.032	8	—	40	0.00080	0.00020	—	-	-	-	-
Light Heavy-Duty Trucks 2	LHDT2	-	-	G	—	0.032	10	—	40	0.00100	0.00025	—	-	-	-	-
Medium Heavy-Duty Trucks	MHDT	-	-	G	—	0.032	15	—	40	0.00152	0.00037	—	-	-	-	-
Heavy Heavy-Duty Trucks	HHDT	-	-	G	—	0.032	30	—	40	0.00308	0.00076	—	-	-	-	-

Table B-7b: Unpaved Road Dust Emission Estimates

Unpaved Road Dust	Vehicle Category	Activity		Required Variables						Uncontrolled		Controlled Emissions				
		Daily	Annual	EET	Moisture (M)	Silt (s)	Weight (W)	Speed (S)	Precip (P)	PM_{10}	$PM_{2.5}$	Control	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
		VMT	VMT	code	percent	percent	tons	mph	days/yr	lbs/VMT	lbs/VMT	%	lbs/day	lbs/day	lbs/yr	lbs/yr
Phase 1																
Passenger Cars/Smaller SUVs	LDA	-	-	H	7	8	2	15	40	0.68388	0.06823	56.3%	-	-	-	-
Standard-Duty Pickup Trucks/Midsize SUVs	LDT1	-	-	H	7	8	3	15	40	0.77073	0.07692	56.3%	-	-	-	-
Heavy-Duty Pickup Trucks/Larger SUVs	LDT2	-	-	H	7	8	4	15	40	0.84269	0.08411	56.3%	-	-	-	-
Work/Trade Trucks	MDT	-	-	H	7	8	5	15	40	0.90529	0.09037	56.3%	-	-	-	-
Light Heavy-Duty Trucks 1	LHDT1	-	-	H	7	8	8	15	40	1.05963	0.10581	56.3%	-	-	-	-
Light Heavy-Duty Trucks 2	LHDT2	-	-	H	7	8	10	15	40	1.14514	0.11436	56.3%	-	-	-	-
Medium Heavy-Duty Trucks	MHDT	-	-	H	7	8	15	15	40	1.32431	0.13227	56.3%	-	-	-	-
Heavy Heavy-Duty Trucks	HHDT	-	-	H	7	8	30	15	40	1.71754	0.17160	56.3%	-	-	-	-
												FPM_{10}	**0.05**	**lbs/day**	**12.74**	**lbs/yr**
												$FPM_{2.5}$	**0.01**	**lbs/day**	**3.13**	**lbs/yr**

Table B-8: Proposed Natural Gas Compressor TAC Emissions

Table B-8a: Waukesha Compressors - Process Information

Source	Rating (HP)	Design Value (MMBtu/hr)	Annual Operating Hours	Description
COMPRESSOR Waukesha #1	1900	14.97	8,760	4SRB w NSCR
COMPRESSOR Waukesha #2	1900	14.97	8,760	4SRB w NSCR

Table B-8b: Waukesha Compressors - TAC Emissions

Pollutant	Cas No.	Emission Factor (lb/MMScf)	Emission Factor (lb/MMBtu)	Waukesha Compressor 1		Waukesha Compressor 2	
				Annual Emissions (lb/yr)	Hourly Emissions (lb/hr)	Annual Emissions (lb/yr)	Hourly Emissions (lb/hr)
1,1,2,2-Tetrachloroethane	79345	6.07E-03	5.95E-06	7.80E-01	8.91E-05	7.80E-01	8.91E-05
1,1,2-Trichloroethane	79005	3.67E-03	3.60E-06	4.72E-01	5.39E-05	4.72E-01	5.39E-05
1,1-Dichloroethane	75343	2.71E-03	2.66E-06	3.48E-01	3.98E-05	3.48E-01	3.98E-05
1,2 Dichloroethane	107062	2.71E-03	2.66E-06	3.48E-01	3.98E-05	3.48E-01	3.98E-05
1,3-Butadiene	106990	1.59E-01	1.56E-04	2.04E+01	2.33E-03	2.04E+01	2.33E-03
Acetaldehyde	75070	6.70E-01	6.57E-04	8.61E+01	9.83E-03	8.61E+01	9.83E-03
Benzene	71432	3.79E-01	3.72E-04	4.87E+01	5.56E-03	4.87E+01	5.56E-03
Carbon tetrachloride	56235	4.25E-03	4.17E-06	5.46E-01	6.24E-05	5.46E-01	6.24E-05
Chlorobenzene	108907	3.10E-03	3.04E-06	3.99E-01	4.55E-05	3.99E-01	4.55E-05
Chloroform	67663	3.29E-03	3.23E-06	4.23E-01	4.83E-05	4.23E-01	4.83E-05
Ethyl benzene	100414	5.95E-03	5.83E-06	7.65E-01	8.73E-05	7.65E-01	8.73E-05
Ethylene dibromide	106934	5.11E-03	5.01E-06	6.57E-01	7.50E-05	6.57E-01	7.50E-05
Formaldehyde	50000	4.92E+00	4.82E-03	6.33E+02	7.22E-02	6.33E+02	7.22E-02
Methanol	67561	7.34E-01	7.20E-04	9.44E+01	1.08E-02	9.44E+01	1.08E-02
Methylene chloride	75092	9.89E-03	9.70E-06	1.27E+00	1.45E-04	1.27E+00	1.45E-04
Naphthalene	91203	2.33E-02	2.28E-05	3.00E+00	3.42E-04	3.00E+00	3.42E-04
Styrene	100425	2.86E-03	2.80E-06	3.68E-01	4.20E-05	3.68E-01	4.20E-05
Toluene	108883	1.34E-01	1.31E-04	1.72E+01	1.97E-03	1.72E+01	1.97E-03
Vinyl Chloride	75014	1.72E-03	1.69E-06	2.21E-01	2.52E-05	2.21E-01	2.52E-05
Xylene	1330207	4.68E-02	4.59E-05	6.02E+00	6.87E-04	6.02E+00	6.87E-04
2-Methylnaphthalene	91576	3.20E-04	3.14E-07	4.12E-02	4.70E-06	4.12E-02	4.70E-06
Acenaphthylene	208968	1.42E-04	1.39E-07	1.82E-02	2.08E-06	1.82E-02	2.08E-06
Acenaphthene	83329	2.40E-05	2.35E-08	3.08E-03	3.52E-07	3.08E-03	3.52E-07
Anthracene	120127	9.99E-05	9.79E-08	1.28E-02	1.47E-06	1.28E-02	1.47E-06
Benz(a)anthracene	56553	2.40E-05	2.35E-08	3.08E-03	3.52E-07	3.08E-03	3.52E-07
Benzo(a)pyrene	50328	6.32E-06	6.20E-09	8.13E-04	9.28E-08	8.13E-04	9.28E-08
Benzo(b)fluoranthene	205992	7.66E-06	7.51E-09	9.85E-04	1.12E-07	9.85E-04	1.12E-07
Benzo(e)pyrene	192972	1.13E-05	1.11E-08	1.46E-03	1.66E-07	1.46E-03	1.66E-07
Benzo(g,h,i)perylene	191242	6.52E-06	6.39E-09	8.38E-04	9.57E-08	8.38E-04	9.57E-08
Benzo(k)fluoranthene	207089	7.66E-06	7.51E-09	9.85E-04	1.12E-07	9.85E-04	1.12E-07
Chrysene	218019	2.59E-05	2.54E-08	3.33E-03	3.80E-07	3.33E-03	3.80E-07
Dibenz(a,h)anthracene	53703	1.92E-06	1.88E-09	2.47E-04	2.81E-08	2.47E-04	2.81E-08
Fluoranthene	206440	9.18E-05	9.00E-08	1.18E-02	1.35E-06	1.18E-02	1.35E-06
Fluorene	86737	1.02E-04	9.98E-08	1.31E-02	1.49E-06	1.31E-02	1.49E-06
Indeno(1,2,3-c,d)pyrene	193395	3.84E-06	3.76E-09	4.93E-04	5.63E-08	4.93E-04	5.63E-08
Perylene	198550	1.53E-06	1.50E-09	1.97E-04	2.25E-08	1.97E-04	2.25E-08
Phenanthrene	85018	4.79E-04	4.70E-07	6.16E-02	7.04E-06	6.16E-02	7.04E-06
Pyrene	129000	9.39E-05	9.21E-08	1.21E-02	1.38E-06	1.21E-02	1.38E-06

Source of emission factors:
AP-42 for speciated PAHs, SJVAPCD for all other TACs

Table B-9: Proposed Standby Generator TAC Emissions

Table B-9a: Waukesha Standby Generator - Process Information

Source	Rating (HP)	Design Value (MMBtu/hr)	Annual Operating Hours	Description	Comments
Waukesha Emergency Generator	840	7.48	1,000	4SRB w NSCR	

Table B-9b: Waukesha Standby Generator - TAC Emissions

Pollutant	Cas No.	Emission Factor (lb/MMScf)	Emission Factor (lb/MMBtu)	Waukesha Standby ICE	
				Annual Emissions (lb/yr)	Hourly Emissions (lb/hr)
1,1,2,2-Tetrachloroethane	79345	6.07E-03	5.95E-06	4.45E-02	4.45E-05
1,1,2-Trichloroethane	79005	3.67E-03	3.60E-06	2.69E-02	2.69E-05
1,1-Dichloroethane	75343	2.71E-03	2.66E-06	1.99E-02	1.99E-05
1,2 Dichloroethane	107062	2.71E-03	2.66E-06	1.99E-02	1.99E-05
1,3-Butadiene	106990	1.59E-01	1.56E-04	1.17E+00	1.17E-03
Acetaldehyde	75070	6.70E-01	6.57E-04	4.91E+00	4.91E-03
Benzene	71432	3.79E-01	3.72E-04	2.78E+00	2.78E-03
Carbon tetrachloride	56235	4.25E-03	4.17E-06	3.12E-02	3.12E-05
Chlorobenzene	108907	3.10E-03	3.04E-06	2.27E-02	2.27E-05
Chloroform	67663	3.29E-03	3.23E-06	2.41E-02	2.41E-05
Ethyl benzene	100414	5.95E-03	5.83E-06	4.36E-02	4.36E-05
Ethylene dibromide	106934	5.11E-03	5.01E-06	3.75E-02	3.75E-05
Formaldehyde	50000	4.92E+00	4.82E-03	3.61E+01	3.61E-02
Methanol	67561	7.34E-01	7.20E-04	5.38E+00	5.38E-03
Methylene chloride	75092	9.89E-03	9.70E-06	7.25E-02	7.25E-05
Naphthalene	91203	2.33E-02	2.28E-05	1.71E-01	1.71E-04
Styrene	100425	2.86E-03	2.80E-06	2.10E-02	2.10E-05
Toluene	108883	1.34E-01	1.31E-04	9.83E-01	9.83E-04
Vinyl Chloride	75014	1.72E-03	1.69E-06	1.26E-02	1.26E-05
Xylene	1330207	4.68E-02	4.59E-05	3.43E-01	3.43E-04
2-Methylnaphthalene	91576	3.20E-04	3.14E-07	2.35E-03	2.35E-06
Acenaphthylene	208968	1.42E-04	1.39E-07	1.04E-03	1.04E-06
Acenaphthene	83329	2.40E-05	2.35E-08	1.76E-04	1.76E-07
Anthracene	120127	9.99E-05	9.79E-08	7.32E-04	7.32E-07
Benz(a)anthracene	56553	2.40E-05	2.35E-08	1.76E-04	1.76E-07
Benzo(a)pyrene	50328	6.32E-06	6.20E-09	4.64E-05	4.64E-08
Benzo(b)fluoranthene	205992	7.66E-06	7.51E-09	5.62E-05	5.62E-08
Benzo(e)pyrene	192972	1.13E-05	1.11E-08	8.30E-05	8.30E-08
Benzo(g,h,i)perylene	191242	6.52E-06	6.39E-09	4.78E-05	4.78E-08
Benzo(k)fluoranthene	207089	7.66E-06	7.51E-09	5.62E-05	5.62E-08
Chrysene	218019	2.59E-05	2.54E-08	1.90E-04	1.90E-07
Dibenz(a,h)anthracene	53703	1.92E-06	1.88E-09	1.41E-05	1.41E-08
Fluoranthene	206440	9.18E-05	9.00E-08	6.73E-04	6.73E-07
Fluorene	86737	1.02E-04	9.98E-08	7.47E-04	7.47E-07
Indeno(1,2,3-c,d)pyrene	193395	3.84E-06	3.76E-09	2.81E-05	2.81E-08
Perylene	198550	1.53E-06	1.50E-09	1.12E-05	1.12E-08
Phenanthrene	85018	4.79E-04	4.70E-07	3.52E-03	3.52E-06
Pyrene	129000	9.39E-05	9.21E-08	6.89E-04	6.89E-07

Source of emission factors:

AP-42 for speciated PAHs, SJVAPCD for all other TACs

Table B-10: Total VCS Facility TAC Emissions

Pollutant	Cas No.	Total Project	
		Annual Emissions (lb/yr)	Hourly Emissions (lb/hr)
1,1,2,2-Tetrachloroethane	79345	3.17E+00	4.01E-04
1,1,2-Trichloroethane	79005	1.91E+00	2.42E-04
1,1-Dichloroethane	75343	1.41E+00	1.79E-04
1,2 Dichloroethane	107062	1.41E+00	1.79E-04
1,3-Butadiene	106990	8.29E+01	1.05E-02
Acetaldehyde	75070	3.49E+02	4.42E-02
Benzene	71432	1.98E+02	2.50E-02
Carbon tetrachloride	56235	2.22E+00	2.81E-04
Chlorobenzene	108907	1.62E+00	2.05E-04
Chloroform	67663	1.72E+00	2.17E-04
Ethyl benzene	100414	3.10E+00	3.93E-04
Ethylene dibromide	106934	2.67E+00	3.37E-04
Formaldehyde	50000	2.57E+03	3.25E-01
Methanol	67561	3.83E+02	4.85E-02
Methylene chloride	75092	5.16E+00	6.53E-04
Naphthalene	91203	1.22E+01	1.54E-03
Styrene	100425	1.49E+00	1.89E-04
Toluene	108883	6.99E+01	8.85E-03
Vinyl Chloride	75014	8.97E-01	1.14E-04
Xylene	1330207	2.44E+01	3.09E-03
2-Methylnaphthalene	91576	1.67E-01	2.12E-05
Acenaphthylene	208968	7.40E-02	9.36E-06
Acenaphthene	83329	1.25E-02	1.58E-06
Anthracene	120127	5.21E-02	6.59E-06
Benz(a)anthracene	56553	1.25E-02	1.58E-06
Benzo(a)pyrene	50328	3.30E-03	4.18E-07
Benzo(b)fluoranthene	205992	4.00E-03	5.06E-07
Benzo(e)pyrene	192972	5.91E-03	7.48E-07
Benzo(g,h,i)perylene	191242	3.40E-03	4.30E-07
Benzo(k)fluoranthene	207089	4.00E-03	5.06E-07
Chrysene	218019	1.35E-02	1.71E-06
Dibenz(a,h)anthracene	53703	1.00E-03	1.27E-07
Fluoranthene	206440	4.79E-02	6.06E-06
Fluorene	86737	5.31E-02	6.72E-06
Indeno(1,2,3-c,d)pyrene	193395	2.00E-03	2.53E-07
Perylene	198550	7.98E-04	1.01E-07
Phenanthrene	85018	2.50E-01	3.17E-05
Pyrene	129000	4.90E-02	6.20E-06

Notes:
Project emissions based on PTE for the 2 new compressor engines and standby generator

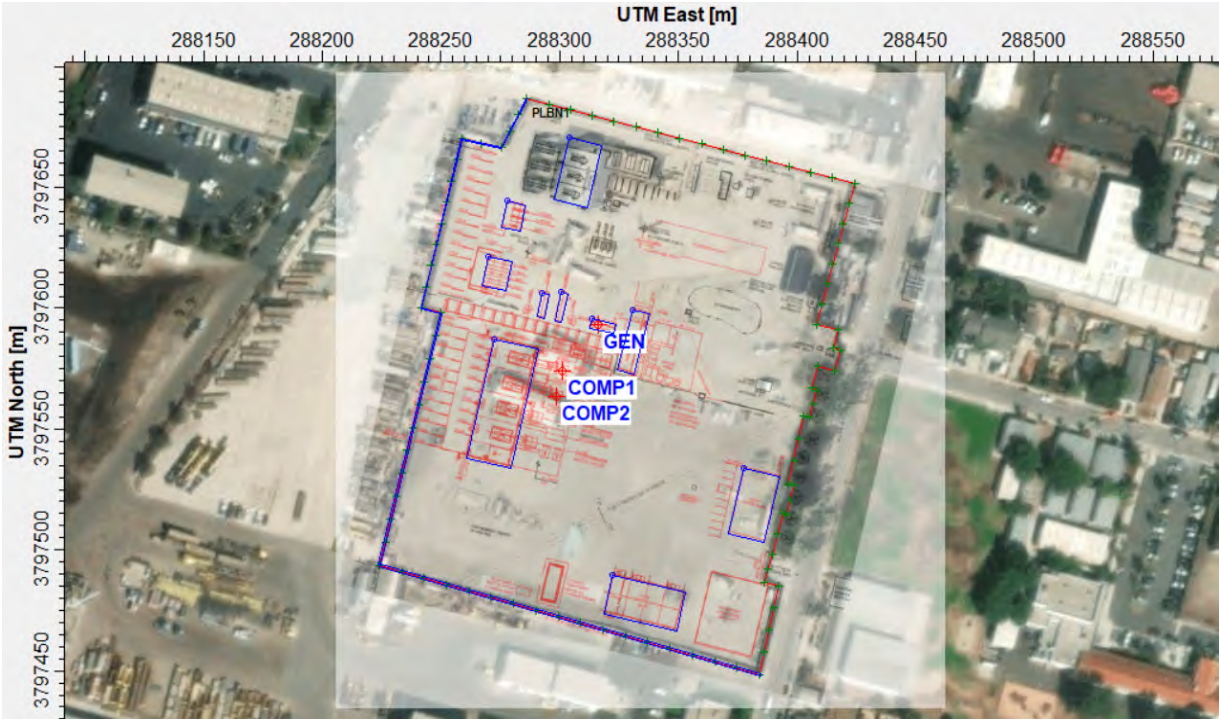
ATTACHMENT C – OPERATIONS PM10 MODELING INPUT PARAMETERS AND RESULTS

Yorke ENGINEERING, LLC
www.YorkeEngr.com

Ventura Compressor Station Modernization Project
Table C-1A Source Parameters and PM10 Emission Rates

Stack ID	Description	Stack Height H_S	Stack Diameter D_S	Stack Velocity V_S	Stack Temp T_S	Stack Flow	Stack Height H_S	Stack Diameter D_S	Stack Velocity V_S	Stack Temp T_S	UTM x NAD83 z11	UTM y NAD83 z11	PM Emission Rate	Stack configuration (fixed cap/flapper cap, vertical/horizontal stack)
		(ft)	(ft)	(ft/s)	(°F)	(acfm)	(m)	(m)	(m/s)	(°K)	(m)	(m)	(lb/hr)	
COMP1	Natural Gas-Fired RICE Driven Compressor	64.0	1.15	134.22	1098.0	8364.7	19.51	0.35	40.91	865.37	288,301.20	3,797,574.08	0.14	vertical, no cap
COMP2	Natural Gas-Fired RICE Driven Compressor	64.0	1.15	134.22	1098.0	8364.7	19.51	0.35	40.91	865.37	288,298.44	3,797,563.41	0.14	vertical, no cap
EM_ICE	Natural Gas-Fired Back-up Generator	21.5	1.15	67.94	1194.0	4234.0	6.55	0.35	20.71	918.7	288,316.20	3,797,593.27	0.07	vertical, no cap

Source Locations



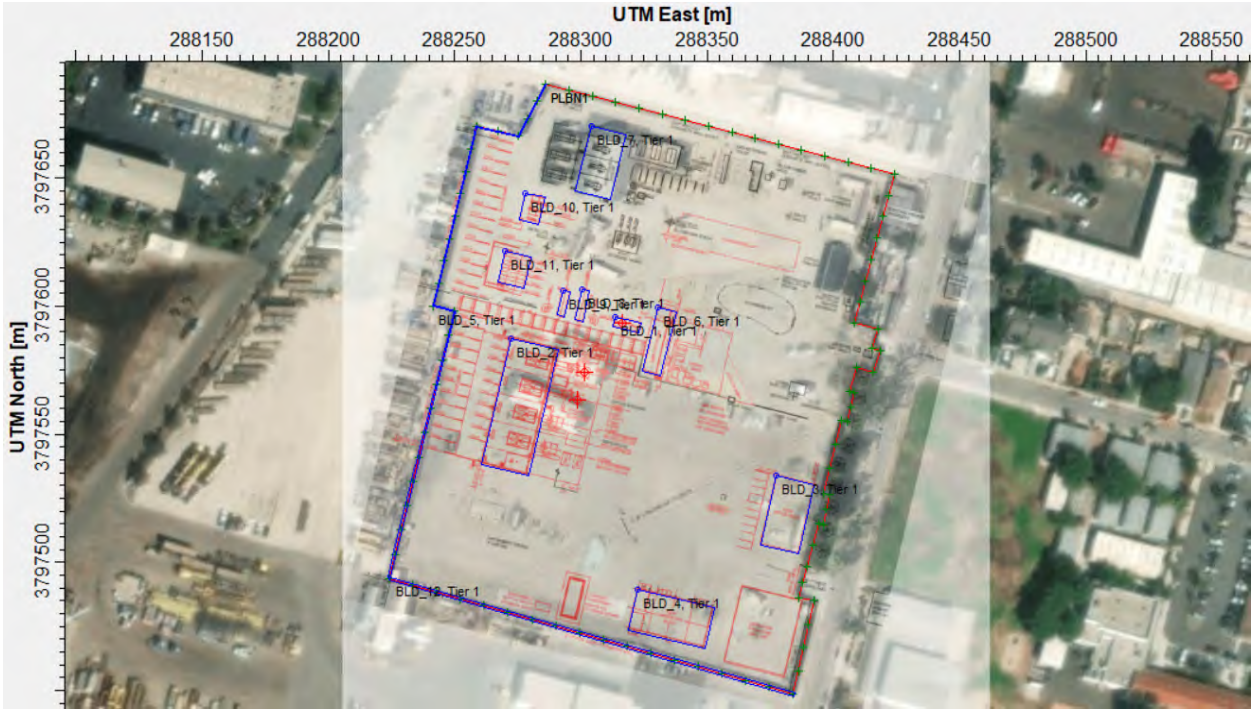
Date Printed: 5/9/2023

Ventura Compressor Station Modernization Project
Table C-1A Source Parameters and PM10 Emission Rates

Table C-1B Building Parameters

Buildings

Building	Height (ft)	X-Length (ft)	Y-Length (ft)
New Compressor Building	52.5	63	166
New Warehouse Building	27.5	103	53
New Office Building	16.5	51	91
New Power Distribution Center (PDC)	20	24	84
New Generator Enclosure	18	34	13
Gas Cooler	12	34	41
Suction Gas Filter / Separator	16	26	36
Instrument Air Compressor Skid	10	9.5	33
Starting Air Compressor Skid	10	9.5	40
Old Compressor Building	32	47	86



Date Printed: 5/9/2023

Ventura Compressor Station Modernization Project
Table C-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Model Version					
AERMOD Version	22112				--
AERMET Version	22112				--
AERMAP Version	18081				--
Lakes Environmental Software; AERMOD View™ Version	11.2.0				--
Control Pathway					
Regulatory Options	Default	☒	Non-Default	☐	--
Output Type	Concentration	☒	Dry Deposition	☐	--
	Total Deposition	☐	Wet Deposition	☐	
Depletion Options	Dry Depletion	☐	Wet Depletion	☐	--
	Disable Dry Depletion	☐	Disable Wet Depletion	☐	
Pollutant	Other				--
Averaging Time Options	1-Hour; Period				--
Dispersion Coefficient	Rural	☒	Urban	☐	Rural is the default assumption.
Terrain Height Options	Elevated		☒		--
	Non-Default Regulatory Options				
	Flat	☐	Flat & Elevated	☐	
Receptor Elevations / Hill Heights	Run AERMOD using the AERMAP Receptor Output file (*.ROU)				--
Source Pathway					
Building Downwash	Include	☒	Exclude	☐	--
Background Concentrations	Include	☐	Exclude	☒	This project does not consider background concentrations.
Source Groups	Each exhaust stack is assigned to its own source group.				--
Urban Groups	N/A				--
Variable Emissions	N/A				

Ventura Compressor Station Modernization Project
Table C-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Receptor Pathway					
Flagpole Receptors	Include	☐	Exclude	☒	All receptors set to ground-level.
Multi-Tier Receptor Grid	Grid Origin: Centroid of Sources Polygon				--
	Tier		Distance from Center (m)	Tier Spacing (m)	
	1		1000	50	
	2		2000	100	
Discrete Cartesian Receptors	Off-Site Worker: Receptor Nos. 84-113 Residential: Receptor Nos. 37-83 Sensitive: Receptor Nos. 1-36				--
Plant Boundary	Receptor Spacing: 10 m				Conservative receptor spacing. Onsite gridded receptors are disabled.
Meteorology Pathway					
Meteorological Data	Station: Onsite MET Station Years: 2002-2003 Base Elevation of Surface Station: 18 m				Onsite Meteorological data.
Terrain Pathway					
Data File	USGS_NED_1_n35w120.tif				NED GEOTIFF Digital Terrain Files. Resolution: 1-arcsecond (30 meters).
AERMAP Domain Options	Not Specified	☐	User-Defined Domain	☒	--

Date Printed: 5/9/2023

Results Summary

C:\Lakes\AERMOD View\VCS PM10
PM10 Run

PM10 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	3.92291	ug/m^3	288233.50	3797531.65	20.32	0.00	353.21	11/28/2002, 24
ANNUAL		0.37244	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	
ANNUAL Y1		0.37244	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	

PM10 - Concentration - Source Group: COMP1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	1.15675	ug/m^3	288233.50	3797531.65	20.32	0.00	353.21	11/28/2002, 24
ANNUAL		0.11837	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	
ANNUAL Y1		0.11837	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	

PM10 - Concentration - Source Group: COMP2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	1.62806	ug/m^3	288233.50	3797531.65	20.32	0.00	353.21	11/28/2002, 24
ANNUAL		0.13987	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	
ANNUAL Y1		0.13987	ug/m^3	288252.35	3797485.74	19.41	0.00	353.21	

Results Summary

C:\Lakes\AERMOD View\VCS PM10
PM10 Run

PM10 - Concentration - Source Group: GEN

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
24-HR	1ST	1.15864	ug/m^3	288235.84	3797541.14	20.49	0.00	353.21	11/28/2002, 24
ANNUAL		0.14169	ug/m^3	288341.35	3797672.71	22.11	0.00	353.21	
ANNUAL Y1		0.14169	ug/m^3	288341.35	3797672.71	22.11	0.00	353.21	

ATTACHMENT D – CONSTRUCTION HRA INPUT PARAMETERS AND RESULTS

Yorke ENGINEERING, LLC
www.YorkeEngr.com

Ventura Compressor Station Modernization Project
Table D-1 Source & Building Parameters

Stack ID	Source General Location Description	Stack Height (ft)	Stack Diameter (ft)	Stack Velocity (m/s)	Stack Temp (F)	UTM x (m)	UTM y (m)	Stack configuration (fixed cap/flapper cap, vertical/horizontal stack)
STCK1	New Compressor Building	7.4	0.34	43.16	899	288,281.18	3,797,636.55	vertical, no cap
STCK2	New Compressor Building	7.4	0.34	43.16	899	288,351.54	3,797,628.21	vertical, no cap
STCK3	New Compressor Building	7.4	0.34	43.16	899	288,372.60	3,797,624.78	vertical, no cap
STCK4	New Compressor Building	7.4	0.34	43.16	899	288,271.41	3,797,615.03	vertical, no cap
STCK5	New Compressor Building	7.4	0.34	43.16	899	288,297.10	3,797,602.24	vertical, no cap
STCK6	New Compressor Building	7.4	0.34	43.16	899	288,330.27	3,797,583.27	vertical, no cap
STCK7	Gas Cooler	7.4	0.34	43.16	899	288,348.89	3,797,580.76	vertical, no cap
STCK8	Air Compressor Skid	7.4	0.34	43.16	899	288,381.52	3,797,519.75	vertical, no cap
STCK9	Filter/Separator	7.4	0.34	43.16	899	288,371.65	3,797,472.79	vertical, no cap
STCK10	Deodorizing Unit	7.4	0.34	43.16	899	288,335.35	3,797,477.33	vertical, no cap
STCK11	Deodorizing Unit	7.4	0.34	43.16	899	288,276.39	3,797,581.72	vertical, no cap
STCK12	New Generator Enclosure	7.4	0.34	43.16	899	288,294.45	3,797,581.97	vertical, no cap
STCK13	Gravel Area	7.4	0.34	43.16	899	288,277.12	3,797,563.67	vertical, no cap
STCK14	New Office Building	7.4	0.34	43.16	899	288,295.18	3,797,563.06	vertical, no cap
STCK15	Detention Structure	7.4	0.34	43.16	899	288,276.76	3,797,545.25	vertical, no cap
STCK16	New Warehouse Building	7.4	0.34	43.16	899	288,294.93	3,797,544.40	vertical, no cap

Notes:

1. SBCAPCD Default Stack Parameters for ICEs for engine size 100-250 BHP.
2. Source locations are shown in the general vicinity of the proposed building to be constructed.

Source Locations

Date Printed: 5/9/2023

Ventura Compressor Station Modernization Project
Table D-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Model Version					
AERMOD Version	22112				--
AERMET Version	22112				--
AERMAP Version	18081				--
Lakes Environmental Software; AERMOD View™ Version	11.2.0				--
Control Pathway					
Regulatory Options	Default	☒	Non-Default	☐	--
Output Type	Concentration	☒	Dry Deposition	☐	--
	Total Deposition	☐	Wet Deposition	☐	
Depletion Options	Dry Depletion	☐	Wet Depletion	☐	--
	Disable Dry Depletion	☐	Disable Wet Depletion	☐	
Pollutant	Other				--
Averaging Time Options	1-Hour; Period				--
Dispersion Coefficient	Rural	☒	Urban	☐	Rural is the default assumption.
Terrain Height Options	Elevated		☒		--
	Non-Default Regulatory Options				
	Flat	☐	Flat & Elevated	☐	
Receptor Elevations / Hill Heights	Run AERMOD using the AERMAP Receptor Output file (*.ROU)				--
Source Pathway					
Building Downwash	Include	☒	Exclude	☐	--
Background Concentrations	Include	☐	Exclude	☒	This project does not consider background concentrations.
Source Groups	Each exhaust stack is assigned to its own source group.				--
Urban Groups	N/A				--
Variable Emissions	N/A				

Ventura Compressor Station Modernization Project
Table D-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Receptor Pathway					
Flagpole Receptors	Include	☐	Exclude	☒	All receptors set to ground-level.
Multi-Tier Receptor Grid	Grid Origin: Centroid of Sources Polygon				--
	Tier		Distance from Center (m)	Tier Spacing (m)	
	1		1000	50	
	2		2000	100	
Discrete Cartesian Receptors	Off-Site Worker: Receptor Nos. 84-113 Residential: Receptor Nos. 37-83 Sensitive: Receptor Nos. 1-36				--
Plant Boundary	Receptor Spacing: 10 m				Conservative receptor spacing. Onsite gridded receptors are disabled.
Meteorology Pathway					
Meteorological Data	Station: Onsite MET Station Years: 2002-2003 Base Elevation of Surface Station: 18 m				Onsite Meteorological data.
Terrain Pathway					
Data File	USGS_NED_1_n35w120.tif				NED GEOTIFF Digital Terrain Files. Resolution: 1-arcsecond (30 meters).
AERMAP Domain Options	Not Specified	☐	User-Defined Domain	☒	--

Ventura Compressor Station Modernization Project
Table D-3 HARP2 Model Options/Assumptions

Parameter	Value				Comments
Model Version					
HARP Version	22118				--
HARP Health Table Version	22343				--
Multi-Pathway					
Inhalation	Res	☒	Work	☒	--
Soil	Res	☒	Work	☒	--
Dermal	Res	☒	Work	☒	"Warm" climate.
Mother's Milk	Res	☒	Work	☐	--
Drinking Water	Res	☐	Work	☐	--
Fish	Res	☐	Work	☐	--
Homegrown Produce	Res	☒	Work	☐	Default for "Households that Garden".
Beef/Dairy	Res	☐	Work	☐	--
Pigs, Chickens, and/or Eggs	Res	☐	Work	☐	--
Deposition Velocity	0.02 m/s				Particulate matter from all sources is < 2.5 µg/m3
Residential Cancer Risk Assumptions					
Exposure Duration	30 years				--
Fraction of Time at Home	3rd Trimester to 16 years: Off 16 years to 30 years: On				There is a school within the cancer risk ZOI.
Inhalation Rate Basis	RMP				--
Analysis Option	RMP Using the Derived Method				--
Worker Cancer Risk Assumptions					
Exposure Duration	25 years				--
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	8-hr Breathing Rates, Moderate Intensity				--
Worker Adjustment Factor	4.2				Worker Adjustment Factor = (24 / 8) x (7 / 5) = 4.2.
Residential and Worker Non-Cancer Risk Assumptions					
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	Residential: Long-Term 24-hr Off-Site Worker: 8-hr Breathing Rates, Moderate Intensity				--

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Cancer Risk by Source for All Pollutants Combined at MEIR, MEIW, and Non-Residential Sensitive Receptor - VCS Construction HRA

Sources	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive		Maximally Exposed Individual Worker (MEIW)	
	receptor #	49	receptor #	24	receptor #	107
	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
	288,236.76	3,797,278.72	288,435.04	3,797,572.12	288,279.18	3,797,457.30
	3-Year Cancer Risk	Contribution (%)	3-Year Cancer Risk	Contribution (%)	3-Year Cancer Risk	Contribution (%)
ALL	2.30E-06	100%	1.49E-06	100%	3.14E-07	100%

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Maximum Cancer Risk by Pollutant at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Construction HRA

Pollutant CAS	Pollutant	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive		Maximally Exposed Individual Worker (MEIW)	
		receptor #	49	receptor #	24	receptor #	107
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,236.76	3,797,278.72	288,435.04	3,797,572.12	288,279.18	3,797,457.30
		3-Year Cancer Risk	Contribution (%)	3-Year Cancer Risk	Contribution (%)	3-Year Cancer Risk	Contribution (%)
-	ALL	2.30E-06	100%	1.49E-06	100%	3.14E-07	100.00%
9901	DieselExhPM	2.30E-06	100.00%	1.49E-06	100.00%	3.14E-07	100.00%

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Chronic Hazard Index by Source for All Pollutants Combined at MEIR, MEIW, and Non-Residential Sensitive Receptor - VCS Construction HRA

Sources	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive		Maximally Exposed Individual Worker (MEIW)	
	receptor #	49	receptor #	24	receptor #	107
	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
	288,236.76	3,797,278.72	288,435.04	3,797,572.12	288,279.18	3,797,457.30
	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)
ALL	1.24E-03	100%	8.05E-04	100%	1.93E-03	100%

Note:
Individual sources are not additive because risk is based on specific target organs, which may be different per source

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Maximum Chronic Hazard Index by Pollutant at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Construction HRA

Pollutant CAS	Pollutant	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive		Maximally Exposed Individual Worker (MEIW)	
		receptor #	49	receptor #	24	receptor #	107
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,236.76	3,797,278.72	288,435.04	3,797,572.12	288,279.18	3,797,457.30
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)
-	ALL	1.24E-03	100%	8.05E-04	100%	1.93E-03	100%
9901	DieselExhPM	1.24E-03	100.00%	8.05E-04	100.00%	1.93E-03	100.00%

Note:
Individual pollutants are not additive because risk is based on specific target organs, which may be different per pollutant.

ATTACHMENT E – OPERATIONS HRA INPUT PARAMETERS AND RESULTS

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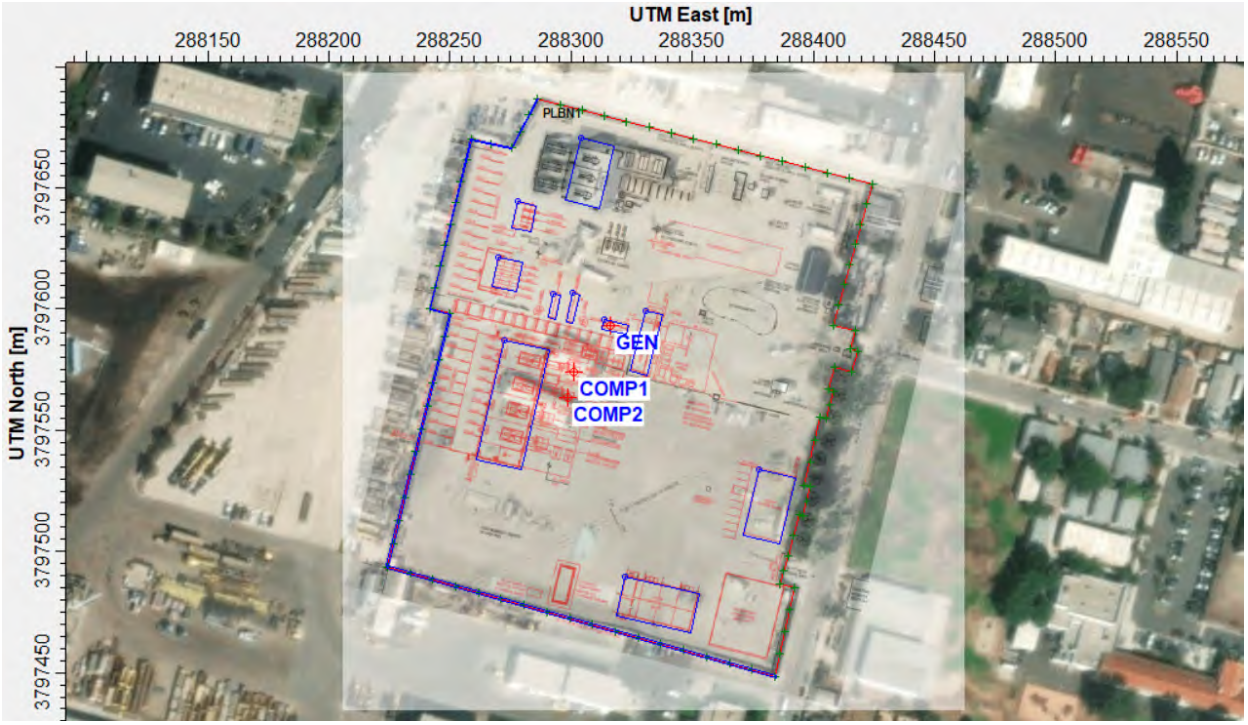
Ventura Compressor Station Modernization Project
Table E-1A Source Parameters

Stack ID	Description	Stack Height	Stack Diameter	Stack Velocity	Stack Temp	Stack Flow	Stack Height	Stack Diameter	Stack Velocity	Stack Temp	UTM x	UTM y	Stack configuration (fixed cap/flapper cap, vertical/horizontal stack)
		H_S	D_S	V_S	T_S		H_S	D_S	V_S	T_S	NAD83 z11	NAD83 z11	
		(ft)	(ft)	(ft/s)	(°F)	(acfm)	(m)	(m)	(m/s)	(°K)	(m)	(m)	
COMP1	Natural Gas-Fired RICE Driven Compressor	64.0	1.15	134.22	1098.0	8364.7	19.51	0.35	40.91	865.37	288,301.20	3,797,574.08	vertical, no cap
COMP2	Natural Gas-Fired RICE Driven Compressor	64.0	1.15	134.22	1098.0	8364.7	19.51	0.35	40.91	865.37	288,298.44	3,797,563.41	vertical, no cap
EM_ICE	Natural Gas-Fired Standby ICE	21.5	1.15	67.94	1194.0	4234.0	6.55	0.35	20.71	918.7	288,316.20	3,797,593.27	vertical, no cap

Source Locations



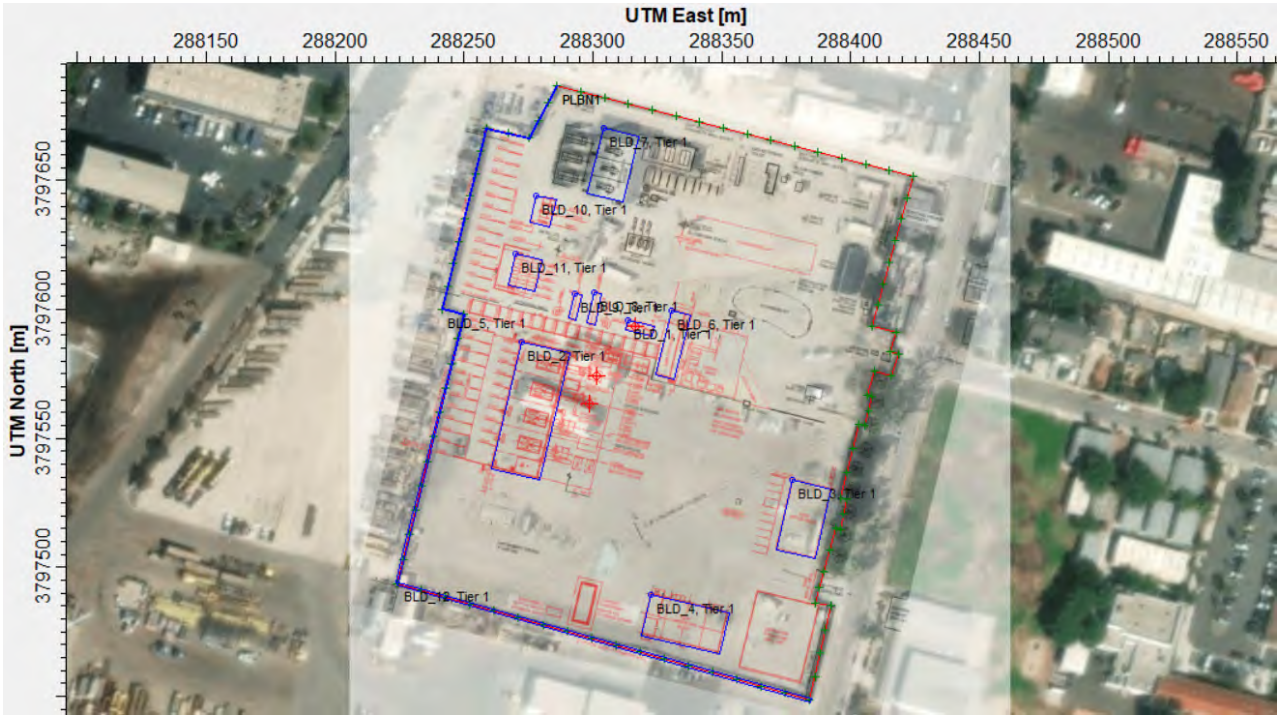
Date Printed: 5/9/2023

Ventura Compressor Station Modernization Project
Table E-1A Source Parameters

Table E-1B Building Parameters

Buildings

Building	Height (ft)	X-Length (ft)	Y-Length (ft)
New Compressor Building	52.5	63	166
New Warehouse Building	27.5	103	53
New Office Building	16.5	51	91
New Power Distribution Center (PDC)	20	24	84
New Generator Enclosure	18	34	13
Gas Cooler	12	34	41
Suction Gas Filter / Separator	16	26	36
Instrument Air Compressor Skid	10	9.5	33
Starting Air Compressor Skid	10	9.5	40
Old Compressor Building	32	47	86



Ventura Compressor Station Modernization Project
Table E-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Model Version					
AERMOD Version	22112				--
AERMET Version	22112				--
AERMAP Version	18081				--
Lakes Environmental Software; AERMOD View™ Version	11.2.0				--
Control Pathway					
Regulatory Options	Default	☒	Non-Default	☐	--
Output Type	Concentration	☒	Dry Deposition	☐	--
	Total Deposition	☐	Wet Deposition	☐	
Depletion Options	Dry Depletion	☐	Wet Depletion	☐	--
	Disable Dry Depletion	☐	Disable Wet Depletion	☐	
Pollutant	Other				--
Averaging Time Options	1-Hour; Period				--
Dispersion Coefficient	Rural	☒	Urban	☐	Rural is the default assumption.
Terrain Height Options	Elevated		☒		--
	Non-Default Regulatory Options				
	Flat	☐	Flat & Elevated	☐	
Receptor Elevations / Hill Heights	Run AERMOD using the AERMAP Receptor Output file (*.ROU)				--
Source Pathway					
Building Downwash	Include	☒	Exclude	☐	--
Background Concentrations	Include	☐	Exclude	☒	This project does not consider background concentrations.
Source Groups	Each exhaust stack is assigned to its own source group.				--
Urban Groups	N/A				--
Variable Emissions	N/A				

Ventura Compressor Station Modernization Project
Table E-2 AERMOD Dispersion Model Options/Assumptions

Parameter	Value				Comments
Receptor Pathway					
Flagpole Receptors	Include	☐	Exclude	☒	All receptors set to ground-level.
Multi-Tier Receptor Grid	Grid Origin: Centroid of Sources Polygon				--
	Tier		Distance from Center (m)	Tier Spacing (m)	
	1		1000	50	
	2		2000	100	
Discrete Cartesian Receptors	Off-Site Worker: Receptor Nos. 84-113 Residential: Receptor Nos. 37-83 Sensitive: Receptor Nos. 1-36				--
Plant Boundary	Receptor Spacing: 10 m				Conservative receptor spacing. Onsite gridded receptors are disabled.
Meteorology Pathway					
Meteorological Data	Station: Onsite MET Station Years: 2002-2003 Base Elevation of Surface Station: 18 m				Onsite Meteorological data.
Terrain Pathway					
Data File	USGS_NED_1_n35w120.tif				NED GEOTIFF Digital Terrain Files. Resolution: 1-arcsecond (30 meters).
AERMAP Domain Options	Not Specified	☐	User-Defined Domain	☒	--

Ventura Compressor Station Modernization Project
Table E-3 HARP2 Model Options/Assumptions

Parameter	Value				Comments
Model Version					
HARP Version	22118				--
HARP Health Table Version	22343				--
Multi-Pathway					
Inhalation	Res	☒	Work	☒	--
Soil	Res	☒	Work	☒	--
Dermal	Res	☒	Work	☒	"Warm" climate.
Mother's Milk	Res	☒	Work	☐	--
Drinking Water	Res	☐	Work	☐	--
Fish	Res	☐	Work	☐	--
Homegrown Produce	Res	☒	Work	☐	Default for "Households that Garden".
Beef/Dairy	Res	☐	Work	☐	--
Pigs, Chickens, and/or Eggs	Res	☐	Work	☐	--
Deposition Velocity	0.02 m/s				Particulate matter from all sources is < 2.5 µg/m3
Residential Cancer Risk Assumptions					
Exposure Duration	30 years				--
Fraction of Time at Home	3rd Trimester to 16 years: Off 16 years to 30 years: On				There is a school within the cancer risk ZOI.
Inhalation Rate Basis	RMP				--
Analysis Option	RMP Using the Derived Method				--
Worker Cancer Risk Assumptions					
Exposure Duration	25 years				--
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	8-hr Breathing Rates, Moderate Intensity				--
Worker Adjustment Factor	1				Continuous operation
Residential and Worker Non-Cancer Risk Assumptions					
Analysis Option	OEHHA Derived Method				--
Inhalation Rate Basis	Residential: Long-Term 24-hr Off-Site Worker: 8-hr Breathing Rates, Moderate Intensity				--

Table E-4: Ventura Compressor Station HRA
Residential, Sensitive and Worker Receptors

UTM Northing (m)	UTM Easting (m)	Elevation (m)	Hill Height (m)	Group	Name	Address/Location
288,518.13	3,797,452.01	19.78	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,568.59	3,797,440.01	19.92	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,613.55	3,797,427.57	20.32	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,627.40	3,797,395.62	20.20	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,617.41	3,797,357.26	19.98	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,564.90	3,797,370.95	19.31	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,511.76	3,797,387.96	19.04	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,514.30	3,797,413.69	19.28	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,486.31	3,797,421.61	19.24	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,454.07	3,797,429.53	18.99	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,635.75	3,797,352.98	20.04	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,481.02	3,797,460.89	19.44	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,483.03	3,797,487.04	19.52	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,489.73	3,797,509.17	19.72	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,484.37	3,797,522.92	19.84	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,487.58	3,797,538.42	20.08	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,487.58	3,797,554.17	20.33	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,509.50	3,797,505.41	19.85	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,509.90	3,797,522.77	19.97	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,515.81	3,797,541.70	20.27	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,513.84	3,797,482.13	19.82	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,499.64	3,797,456.10	19.64	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,537.12	3,797,540.52	20.37	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,435.04	3,797,572.12	20.30	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,427.55	3,797,544.50	19.95	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,421.24	3,797,523.20	19.71	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,417.09	3,797,503.99	19.53	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,414.94	3,797,493.75	19.45	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,453.94	3,797,509.25	19.62	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,460.75	3,797,547.63	20.11	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,445.12	3,797,485.69	19.41	353.21	School	E. P. Foster Elementary School	20 Pleasant Pl Ventura, CA 93001
288,558.62	3,797,551.71	20.72	353.21	Daycare	Macias Lynn Family Day Care	91 W McFarlane Dr Ventura, CA 93001
288,571.42	3,797,547.62	20.88	353.21	Daycare	Macias Lynn Family Day Care	91 W McFarlane Dr Ventura, CA 93001
288,569.05	3,797,566.98	20.96	353.21	Daycare	Macias Lynn Family Day Care	91 W McFarlane Dr Ventura, CA 93001
288,580.67	3,797,579.24	21.22	353.21	Daycare	Macias Lynn Family Day Care	91 W McFarlane Dr Ventura, CA 93001
288,567.12	3,797,583.22	21.02	353.21	Daycare	Macias Lynn Family Day Care	91 W McFarlane Dr Ventura, CA 93001
288,480.13	3,797,873.00	23.97	353.21	Daycare	VUSD Property (La Petite Academy)	261 W Stanley Ave Ventura, CA 93001
288,480.13	3,797,923.00	24.74	353.21	Daycare	VUSD Property (La Petite Academy)	261 W Stanley Ave Ventura, CA 93001
288,398.96	3,797,443.23	19.02	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,393.14	3,797,420.20	18.74	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,404.53	3,797,428.17	18.84	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,417.60	3,797,424.67	18.76	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,435.72	3,797,420.92	18.66	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,446.83	3,797,418.42	18.76	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,421.07	3,797,437.18	18.94	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,415.36	3,797,412.23	18.57	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,433.24	3,797,408.87	18.47	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,445.15	3,797,406.34	18.57	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,438.15	3,797,433.14	18.89	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,447.62	3,797,430.04	18.93	353.21	Resident	Residential Receptor	Resident Southeast of Facility
288,236.76	3,797,278.72	17.18	353.21	Resident	Residential Receptor	Resident South of Facility
288,183.32	3,797,290.99	17.33	353.21	Resident	Residential Receptor	Resident South of Facility
288,223.45	3,797,281.00	17.18	353.21	Resident	Residential Receptor	Resident South of Facility
288,170.88	3,797,295.02	17.44	353.21	Resident	Residential Receptor	Resident South of Facility
288,131.21	3,797,305.59	17.75	353.21	Resident	Residential Receptor	Resident South of Facility
288,117.87	3,797,309.36	17.74	353.21	Resident	Residential Receptor	Resident South of Facility
288,078.58	3,797,319.84	17.62	353.21	Resident	Residential Receptor	Resident South of Facility
288,065.59	3,797,323.59	17.67	353.21	Resident	Residential Receptor	Resident South of Facility
288,285.22	3,797,245.72	17.12	353.21	Resident	Residential Receptor	Resident South of Facility
288,299.07	3,797,241.69	17.19	353.21	Resident	Residential Receptor	Resident South of Facility
288,289.78	3,797,238.71	17.06	353.21	Resident	Residential Receptor	Resident South of Facility
288,246.84	3,797,258.87	16.98	353.21	Resident	Residential Receptor	Resident South of Facility
288,244.73	3,797,252.03	16.91	353.21	Resident	Residential Receptor	Resident South of Facility
288,235.80	3,797,259.65	16.99	353.21	Resident	Residential Receptor	Resident South of Facility
288,213.19	3,797,265.61	17.02	353.21	Resident	Residential Receptor	Resident South of Facility
288,431.99	3,797,644.65	21.18	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,428.65	3,797,630.42	20.99	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline

Table E-4: Ventura Compressor Station HRA
Residential, Sensitive and Worker Receptors

UTM Northing (m)	UTM Easting (m)	Elevation (m)	Hill Height (m)	Group	Name	Address/Location
288,435.73	3,797,643.33	21.15	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,432.77	3,797,629.25	20.97	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,425.23	3,797,646.44	21.24	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,421.49	3,797,631.89	21.02	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,430.28	3,797,638.66	21.10	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,417.16	3,797,619.64	20.84	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,413.88	3,797,607.72	20.66	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,410.46	3,797,595.80	20.47	353.21	Resident	Residential Receptor	Resident Bordering Eastern Fenceline
288,446.39	3,797,617.24	20.84	353.21	Resident	Residential Receptor	Resident East of Facility
288,441.49	3,797,599.66	20.63	353.21	Resident	Residential Receptor	Resident East of Facility
288,443.94	3,797,605.77	20.71	353.21	Resident	Residential Receptor	Resident East of Facility
288,439.96	3,797,587.37	20.50	353.21	Resident	Residential Receptor	Resident East of Facility
288,473.47	3,797,591.82	20.79	353.21	Resident	Residential Receptor	Resident East of Facility
288,488.94	3,797,589.14	20.86	353.21	Resident	Residential Receptor	Resident East of Facility
288,475.32	3,797,611.42	20.94	353.21	Resident	Residential Receptor	Resident East of Facility
288,492.04	3,797,606.05	20.99	353.21	Resident	Residential Receptor	Resident East of Facility
288,467.69	3,797,576.34	20.60	353.21	Resident	Residential Receptor	Resident East of Facility
288,484.40	3,797,571.80	20.62	353.21	Resident	Residential Receptor	Resident East of Facility
288,429.51	3,797,689.52	21.93	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,433.02	3,797,700.40	22.07	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,381.96	3,797,701.98	22.36	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,387.05	3,797,715.66	22.46	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,408.00	3,797,702.91	22.22	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,426.08	3,797,661.25	21.50	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,400.94	3,797,667.82	21.74	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,378.08	3,797,673.82	21.97	353.21	Worker	B & R Fabrication	1715 N Olive St Ventura, CA 93001
288,376.57	3,797,718.45	22.56	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,370.01	3,797,690.52	22.28	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,336.01	3,797,697.56	22.48	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,301.04	3,797,706.79	22.56	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,274.81	3,797,713.83	22.59	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,325.81	3,797,719.90	22.71	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,283.79	3,797,744.92	23.01	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,330.18	3,797,733.99	22.81	353.21	Worker	Ntt Equipment Repair & Fab	280A W Stanley Ave Ventura, CA 93001
288,297.95	3,797,696.06	22.43	353.21	Worker	Western Wireline Inc.	1689 N Olive St Ventura, CA 93001
288,314.94	3,797,691.24	22.43	353.21	Worker	Western Wireline Inc.	1689 N Olive St Ventura, CA 93001
288,475.65	3,797,618.90	20.98	353.21	Worker	United Rentals - Trench Safety	1680 N Olive St Ventura, CA 93001
288,479.37	3,797,629.85	21.05	353.21	Worker	United Rentals - Trench Safety	1680 N Olive St Ventura, CA 93001
288,531.21	3,797,652.15	21.33	353.21	Worker	United Rentals - Trench Safety	1680 N Olive St Ventura, CA 93001
288,521.29	3,797,619.52	21.10	353.21	Worker	United Rentals - Trench Safety	1680 N Olive St Ventura, CA 93001
288,517.78	3,797,606.51	20.99	353.21	Worker	United Rentals - Trench Safety	1680 N Olive St Ventura, CA 93001
288,279.18	3,797,457.30	19.20	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,320.71	3,797,446.30	19.08	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,353.95	3,797,436.91	19.14	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,371.90	3,797,434.18	19.03	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,224.39	3,797,489.85	19.73	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,232.23	3,797,488.48	19.61	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001
288,224.39	3,797,476.22	19.58	353.21	Worker	T & T Truck & Crane Services	1375 N Olive St Ste A Ventura, CA 93001

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Cancer Risk by Source for All Pollutants Combined at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Sources	Source Description	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)	
		receptor #	52	receptor #	36	receptor #	112
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,170.88	3,797,295.02	288,567.12	3,797,583.22	288,232.23	3,797,488.48
		30-Year Cancer Risk	Contribution (%)	30-Year Cancer Risk	Contribution (%)	25-Year Cancer Risk	Contribution (%)
ALL	--	2.81E-06	100%	5.40E-07	100%	1.25E-06	100%
COMP1	Compressor 1	1.28E-06	45.66%	2.47E-07	45.83%	5.67E-07	45.20%
COMP2	Compressor 2	1.42E-06	50.55%	2.62E-07	48.56%	6.11E-07	48.76%
GEN	Emergency Generator	1.06E-07	3.78%	3.03E-08	5.61%	7.57E-08	6.04%

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Maximum Cancer Risk by Pollutant at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Pollutant CAS	Pollutant	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)	
		receptor #	52	receptor #	36	receptor #	112
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,170.88	3,797,295.02	288,567.12	3,797,583.22	288,232.23	3,797,488.48
		30-Year Cancer Risk	Contribution (%)	30-Year Cancer Risk	Contribution (%)	25-Year Cancer Risk	Contribution (%)
-	ALL	2.81E-06	100%	5.40E-07	100%	1.25E-06	100.00%
50000	Formaldehyde	1.15E-06	41.07%	2.22E-07	41.07%	5.17E-07	41.27%
106990	1,3-Butadiene	1.07E-06	37.93%	2.05E-07	37.93%	4.78E-07	38.10%
71432	Benzene	4.23E-07	15.07%	8.13E-08	15.07%	1.90E-07	15.14%
75070	Acetaldehyde	7.48E-08	2.66%	1.44E-08	2.66%	3.35E-08	2.68%
91203	Naphthalene	3.12E-08	1.11%	6.00E-09	1.11%	1.40E-08	1.12%
106934	EDB	1.43E-08	0.51%	2.74E-09	0.51%	6.40E-09	0.51%
79345	TetraClEthane	1.36E-08	0.48%	2.60E-09	0.48%	6.08E-09	0.48%
50328	B[a]P	7.72E-09	0.27%	1.48E-09	0.27%	2.58E-10	0.02%
56235	CCl4	7.12E-09	0.25%	1.37E-09	0.25%	3.19E-09	0.25%
75014	Vinyl Chloride	5.19E-09	0.18%	9.96E-10	0.18%	2.33E-09	0.19%
56553	B[a]anthracene	2.93E-09	0.10%	5.62E-10	0.10%	9.77E-11	0.01%
79005	1,1,2TriClEthan	2.34E-09	0.08%	4.49E-10	0.08%	1.05E-09	0.08%
107062	EDC	2.18E-09	0.08%	4.19E-10	0.08%	9.77E-10	0.08%
205992	B[b]fluoranthen	9.35E-10	0.03%	1.80E-10	0.03%	3.12E-11	0.00%
207089	B[k]fluoranthen	9.35E-10	0.03%	1.80E-10	0.03%	3.12E-11	0.00%
53703	D[a,h]anthracen	8.41E-10	0.03%	1.62E-10	0.03%	5.33E-11	0.00%
67663	Chloroform	6.98E-10	0.02%	1.34E-10	0.02%	3.13E-10	0.02%
100414	Ethyl Benzene	5.78E-10	0.02%	1.11E-10	0.02%	2.59E-10	0.02%
193395	In[1,2,3-cd]pyr	4.68E-10	0.02%	8.99E-11	0.02%	1.56E-11	0.00%
75092	Methylene Chlor	3.87E-10	0.01%	7.42E-11	0.01%	1.73E-10	0.01%
218019	Chrysene	3.16E-10	0.01%	6.07E-11	0.01%	1.06E-11	0.00%
75343	1,1-DiClEthane	1.72E-10	0.01%	3.31E-11	0.01%	7.73E-11	0.01%
108907	Chlorobenzn	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
67561	Methanol	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100425	Styrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108883	Toluene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
1330207	Xylenes	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91576	2MeNaphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
208968	Acenaphthylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
83329	Acenaphthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
120127	Anthracene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
192972	B[e]pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
191242	B[g,h,i]perylen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
206440	Fluoranthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
86737	Fluorene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
198550	Perylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
85018	Phenanthrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
129000	Pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

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Chronic Hazard Index by Source for All Pollutants Combined at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Sources	Source Description	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)		Maximally Exposed Individual Worker (MEIW)	
		receptor #	52	receptor #	36	receptor #	113	receptor #	113
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,170.88	3,797,295.02	288,567.12	3,797,583.22	288,224.39	3,797,476.22	288,224.39	3,797,476.22
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic 8-hr Hazard Index	Contribution (%)
ALL	--	9.14E-03	100%	1.76E-03	100%	1.11E-02	100%	4.62E-02	100%
COMP1	Compressor 1	4.18E-03	45.66%	8.05E-04	45.83%	5.03E-03	45.22%	2.09E-02	45.22%
COMP2	Compressor 2	4.62E-03	50.55%	8.53E-04	48.56%	5.41E-03	48.64%	2.25E-02	48.64%
GEN	Emergency Generator	3.46E-04	3.78%	9.86E-05	5.61%	6.83E-04	6.14%	2.84E-03	6.14%

Note:
Individual sources are not additive because risk is based on specific target organs, which may be different per source

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Maximum Chronic Hazard Index by Pollutant at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Pollutant CAS	Pollutant	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)		Maximally Exposed Individual Worker (MEIW) 8-hour	
		receptor #	52	receptor #	36	receptor #	113	receptor #	113
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,170.88	3,797,295.02	288,567.12	3,797,583.22	288,224.39	3,797,476.22	288,224.39	3,797,476.22
		Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic Hazard Index	Contribution (%)	Chronic 8-hr Hazard Index	Contribution (%)
-	ALL	9.14E-03	100.00%	1.76E-03	100.00%	1.11E-02	100.00%	4.62E-02	100.00%
50000	Formaldehyde	9.02E-03	98.66%	1.73E-03	98.66%	1.10E-02	98.66%	4.61E-02	99.59%
71432	Benzene	2.08E-03	22.80%	4.00E-04	22.80%	2.53E-03	22.80%	1.06E-02	23.02%
106990	1,3-Butadiene	1.31E-03	14.35%	2.52E-04	14.35%	1.59E-03	14.35%	1.49E-03	3.22%
106934	EDB	1.05E-04	1.15%	2.02E-05	1.15%	1.28E-04	1.15%	0.00E+00	0.00%
75070	Acetaldehyde	7.90E-05	0.86%	1.52E-05	0.86%	9.60E-05	0.86%	1.88E-04	0.41%
91203	Naphthalene	4.27E-05	0.47%	8.21E-06	0.47%	5.19E-05	0.47%	0.00E+00	0.00%
108883	Toluene	5.26E-06	0.06%	1.01E-06	0.06%	6.40E-06	0.06%	1.36E-05	0.03%
67561	Methanol	3.03E-06	0.03%	5.82E-07	0.03%	3.68E-06	0.03%	0.00E+00	0.00%
56235	CCl4	1.75E-06	0.02%	3.37E-07	0.02%	2.13E-06	0.02%	0.00E+00	0.00%
1330207	Xylenes	1.10E-06	0.01%	2.12E-07	0.01%	1.34E-06	0.01%	0.00E+00	0.00%
75092	Methylene Chlor	4.08E-07	0.00%	7.84E-08	0.00%	4.96E-07	0.00%	0.00E+00	0.00%
67663	Chloroform	1.81E-07	0.00%	3.48E-08	0.00%	2.20E-07	0.00%	0.00E+00	0.00%
107062	EDC	1.12E-07	0.00%	2.15E-08	0.00%	1.36E-07	0.00%	0.00E+00	0.00%
100425	Styrene	5.24E-08	0.00%	1.01E-08	0.00%	6.37E-08	0.00%	0.00E+00	0.00%
108907	Chlorobenzn	5.12E-08	0.00%	9.83E-09	0.00%	6.22E-08	0.00%	0.00E+00	0.00%
100414	Ethyl Benzene	4.91E-08	0.00%	9.43E-09	0.00%	5.97E-08	0.00%	0.00E+00	0.00%
75014	Vinyl Chloride	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
79345	TetraClEthane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50328	B[a]P	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
56553	B[a]anthracene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
79005	1,1,2TriClEthan	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
205992	B[b]fluoranthen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
207089	B[k]fluoranthen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
53703	D[a,h]anthracen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
193395	In[1,2,3-cd]pyr	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
218019	Chrysene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75343	1,1-DiClEthane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91576	2MeNaphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
208968	Acenaphthylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
83329	Acenaphthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
120127	Anthracene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
192972	B[e]pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
191242	B[g,h,i]perylen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
206440	Fluoranthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
86737	Fluorene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
198550	Perylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
85018	Phenanthrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
129000	Pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Note:
Individual pollutants are not additive because risk is based on specific target organs, which may be different per pollutant.

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Acute Hazard Index by Source for All Pollutants Combined at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Sources	Source Description	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)	
		receptor #	53	receptor #	29	receptor #	108
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,131.21	3,797,305.59	288,453.94	3,797,509.25	288,320.71	3,797,446.30
		Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)
ALL	--	3.23E-02	100%	3.08E-02	100%	2.34E-02	100%
COMP1	Compressor 1	9.50E-03	29.37%	7.92E-03	25.71%	7.43E-03	31.69%
COMP2	Compressor 2	9.75E-03	30.15%	8.16E-03	26.48%	8.83E-03	37.69%
GEN	Emergency Generator	1.31E-02	40.49%	1.47E-02	47.81%	7.18E-03	30.62%

Note:
Individual sources are not additive because risk is based on specific target organs, which may be different per source

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Maximum Acute Hazard Index by Pollutant at MEIR, MEIW, and Non-Residential Sensitive Receptor
VCS Operations HRA

Pollutant CAS	Pollutant	Maximally Exposed Individual Resident (MEIR)		Non-Residential Sensitive Receptor		Maximally Exposed Individual Worker (MEIW)	
		receptor #	53	receptor #	29	receptor #	108
		UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)	UTM Easting (m)	UTM Northing (m)
		288,131.21	3,797,305.59	288,453.94	3,797,509.25	288,320.71	3,797,446.30
		Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)	Acute Hazard Index	Contribution (%)
-	ALL	3.23E-02	100%	3.08E-02	100%	2.34E-02	100%
50000	Formaldehyde	3.18E-02	98.40%	3.03E-02	98.40%	2.31E-02	98.40%
71432	Benzene	4.99E-03	15.44%	4.76E-03	15.44%	3.62E-03	15.44%
75070	Acetaldehyde	5.07E-04	1.57%	4.83E-04	1.57%	3.67E-04	1.57%
106990	1,3-Butadiene	8.57E-05	0.27%	8.17E-05	0.26%	6.21E-05	0.26%
108883	Toluene	9.54E-06	0.03%	9.08E-06	0.03%	6.91E-06	0.03%
67561	Methanol	9.33E-06	0.03%	8.89E-06	0.03%	6.76E-06	0.03%
67663	Chloroform	7.80E-06	0.02%	7.43E-06	0.02%	5.65E-06	0.02%
56235	CCl4	7.96E-07	0.00%	7.58E-07	0.00%	5.77E-07	0.00%
1330207	Xylenes	7.57E-07	0.00%	7.21E-07	0.00%	5.48E-07	0.00%
75092	Methylene Chlor	2.51E-07	0.00%	2.39E-07	0.00%	1.82E-07	0.00%
100425	Styrene	4.85E-08	0.00%	4.62E-08	0.00%	3.51E-08	0.00%
75014	Vinyl Chloride	3.40E-09	0.00%	3.24E-09	0.00%	2.46E-09	0.00%
91203	Naphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
106934	EDB	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
79345	TetraClEthane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
50328	B[a]P	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
56553	B[a]anthracene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
79005	1,1,2TriClEthan	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
107062	EDC	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
205992	B[b]fluoranthen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
207089	B[k]fluoranthen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
53703	D[a,h]anthracen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
100414	Ethyl Benzene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
193395	In[1,2,3-cd]pyr	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
218019	Chrysene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
75343	1,1-DiClEthane	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
108907	Chlorobenzn	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
91576	2MeNaphthalene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
208968	Acenaphthylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
83329	Acenaphthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
120127	Anthracene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
192972	B[e]pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
191242	B[g,h,i]perylen	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
206440	Fluoranthene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
86737	Fluorene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
198550	Perylene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
85018	Phenanthrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%
129000	Pyrene	0.00E+00	0.00%	0.00E+00	0.00%	0.00E+00	0.00%

Note:
Individual pollutants are not additive because risk is based on specific target organs, which may be different per pollutant

Figure E-1: Cancer Risk Locations of MEIR, MEIW, and Non-Residential Sensitive Receptor

Purple Triangle .....MEIR
Orange Triangle.....MEIW
Blue Triangle .....Non-Residential Sensitive

Figure E-2: Chronic Risk Locations of MEIR, MEIW, and Non-Residential Sensitive Receptor

Purple Triangle .....MEIR
Orange Triangle.....MEIW (annual, 8-hour)
Blue Triangle .....Non-Residential Sensitive

Figure E-3: Acute Risk Locations of MEIR, MEIW, and Non-Residential Sensitive Receptor

Purple Triangle.....MEIR
Orange Triangle.....MEIW
Blue Triangle.....Non-Residential Sensitive

Table E-11: Cancer Risk Results

Receptor	Exposure Duration	Cancer Risk (in a million)	UTM Easting (m)	UTM Northing (m)	Receptor Number	Receptor Name
MEIR	30-Year	2.81	288,171	3,797,295	52	Westview Apartments
Non-Residential Sensitive		0.54	288,567	3,797,583	36	Macias Lynn Family Day Care
MEIW	25-Year	1.25	288,232	3,797,488	112	T & T Truck & Crane Services

Table E-12: Chronic Risk Results

Receptor	Exposure Duration	Chronic Hazard Index	UTM Easting (m)	UTM Northing (m)	Receptor Number	Receptor Name
MEIR	Annual	0.009	288,171	3,797,295	52	Westview Apartments
Non-Residential Sensitive		0.002	288,567	3,797,583	36	Macias Lynn Family Day Care
MEIW		0.01	288,224	3,797,476	113	T & T Truck & Crane Services
MEIW	8-Hour	0.05	288,224	3,797,476	113	T & T Truck & Crane Services

Table E-13: Acute Risk Results

Receptor	Exposure Duration	Acute Hazard Index	UTM Easting (m)	UTM Northing (m)	Receptor Number	Receptor Name
MEIR	1-Hour	0.03	288,131	3,797,306	53	Westview Apartments
Non-Residential Sensitive		0.03	288,454	3,797,509	29	E. P. Foster Elementary School
MEIW		0.02	288,321	3,797,446	108	T & T Truck & Crane Services

ATTACHMENT F – GHG EMISSIONS AND ENERGY CALCULATIONS

Table F-1: Ventura Compressor Modernization Project - Summary GHG Emissions - Case 1 (2 x 2,500 HP EDC)

Table F-1a: Baseline GHG Emissions (MT/yr)

Greenhouse Gases	Existing Compressor Engines	Existing Emergency Generator	Worker Vehicles	Indirect Auxiliary Electric Power	Total Baseline Emissions
CO_2	4,845	0.63	13.22	92.12	4,951
CH_4	0.09	0.00	0.00	0.01	0.10
N_2O	0.01	0.00	0.00	0.00	0.01
CO_2e	**4,850**	**1**	**13**	**93**	**4,957**

Table F-1b: Project GHG Emissions (MT/yr) - Case 1 (2 x 2,500 HP EDC)

Greenhouse Gases	New Compressor Engines	New Standby Generator	Worker Vehicles	Indirect Auxiliary & EDC Electric Power	Total Project Emissions
CO_2	1,723	79	17.62	2,526	4,346
CH_4	0.03	0.00	0.00	0.32	0.35
N_2O	0.00	0.00	0.00	0.04	0.04
CO_2e	**1,725**	**79**	**18**	**2,546**	**4,368**

Table F-1c: Project GHG Significance Evaluation

Item	Annual CO_2e (MT/yr)
Total Direct Project Net Emissions (Project-Baseline)	(3,042)
Total Indirect Project Net Emissions (Project-Baseline)	2,453
Amortized Construction Emissions	198
Total Operation Net Emissions + Construction	**(391)**
Significance Threshold	**10,000**
NEI Significant?	**No**
Mitigation Required	**None**

Notes:

Project emissions based on Projected actual usage for the new compressor engines, emergency generator, and electric power

Baseline emissions based on HAE for 2021-2022 for gas compressors, emergency generator and electric power

Table F-2: Ventura Compressor Modernization Project - Summary GHG Emissions - Case 2 (2 x 2,000 HP EDC)

Table F-2a: Baseline GHG Emissions (MT/yr)

Greenhouse Gases	Existing Compressor Engines	Existing Emergency Generator	Worker Vehicles	Indirect Auxiliary Electric Power	Total Baseline Emissions
CO_2	4,845	0.63	13.22	92.12	4,951
CH_4	0.09	0.00	0.00	0.01	0.10
N_2O	0.01	0.00	0.00	0.00	0.01
CO_2e	**4,850**	**1**	**13**	**93**	**4,957**

Table F-2b: Project GHG Emissions (MT/yr) - Case 2 (2 x 2,000 HP EDC)

Greenhouse Gases	New Compressor Engines	New Standby Generator	Worker Vehicles	Indirect Auxiliary & EDC Electric Power	Total Project Emissions
CO_2	3,071	79	17.62	2,209	5,377
CH_4	0.06	0.00	0.00	0.28	0.34
N_2O	0.01	0.00	0.00	0.03	0.04
CO_2e	**3,074**	**79**	**18**	**2,226**	**5,397**

Table F-2c: Project GHG Significance Evaluation

Item	Annual CO_2e (MT/yr)
Total Direct Project Net Emissions (Project-Baseline)	(1,693)
Total Indirect Project Net Emissions (Project-Baseline)	2,133
Amortized Construction Emissions	198
Total Operation Net Emissions + Construction	**639**
Significance Threshold	**10,000**
NEI Significant?	**No**
Mitigation Required	**None**

Notes:

Project emissions based on Projected actual usage for the new compressor engines, emergency generator, and electric power

Baseline emissions based on HAE for 2021-2022 for gas compressors, emergency generator and electric power

Table F-3: Project Case 1 GHG Emission Estimates

Table F-3a: Natural Gas Process Rates

Parameter	New Compressor Engine 1	New Compressor Engine 2	New Standby Generator[1]	Total
Annual Process Rate (MMBtu/yr)	16,249.0	16,249.0	1,496	33,994
Annual Fuel Use (MMscf/yr)[2]	15.930	15.930	1.467	33.327

Notes:

[1] 7.48 MMBtu/hr for 200 hrs/yr

[2] Default HHV = 1,020 Btu/cf

Table F-3b: Electric Power Process Rates - Case 1 (2 x 2,500 HP EDC)

Parameter	New EDC 1	New EDC 2	Average Plant Loads[1]	Total
Annual Process Rate (MWh/yr)	7,451	7,451	6,454	21,356
Rated Load (kW)	1,963.2	1,963.2	736.8	—
Operating Hours at Rated Load	3,795	3,795	8,760	—

Notes:

[1] Average Plant Loads at 51.9% annual capacity factor

Table F-3c: GHG Emission Factors

Greenhouse Gases	GWP[1]	Natural Gas (kg/MMBtu)[2]	Electric Power (lbs/MWh)[3]
CO_2	1	53.02	260.788
CH_4	25	0.001	0.033
N_2O	298	0.0001	0.004
CO_2e	**-**	**53.07**	**262.8**

Notes:

[1] Table A-1 to Subpart A of Part 98—Global Warming Potentials (CO_2 = 1, CH_4 = 25, N_2O = 298)

[2] 40 CFR 98 Subpart C - Default GHG Emission Factors and Higher Heating Values for Various Fuels

[3] CalEEMod SCE 2031 Power Content (https://www.caleemod.com/user-guide)

Table F-3d: Project Emissions (MT/yr) - Case 1 (2 x 2,500 HP EDC)

Greenhouse Gases	New Compressor Engines	New Standby Generator	Worker Vehicles	Indirect Emissions	Total Project Emissions
CO_2	1723.0	79.3	17.6	2526.3	4346.2
CH_4	0.0325	0.0015	0.00	0.32	0.35
N_2O	0.0032	0.0001	0.00	0.04	0.04
CO_2e	**1,725**	**79**	**18**	**2,546**	**4,368**

Notes:

Project emissions based on Projected actual usage for the 2 new compressor engines and emergency generator and electricity usage

Commuting emissions based on 4 worker vehicles commuting up to 32 miles per trip one way calculated with EMFAC

1,900 HP NG units (engines)=	**32,498**	**MMBtu/year total for both gas engine units (projected)**
2,500 HP EDC units (motors)=	**14,901,644**	**kWh/year total for both electric motor units (projected)**

Table F-3e: Standard Physical Constants

Description	Value	Units
Mass Conversion	453.6	g/lb
Mass Conversion	2,204.6	lbs/MT
Default HHV	1,020	BTU/scf

Table F-4: Project Case 2 GHG Emission Estimates

Table F-4a: Natural Gas Process Rates

Parameter	New Compressor Engine 1	New Compressor Engine 2	New Standby Generator[1]	Total
Annual Process Rate (MMBtu/yr)	28,962.0	28,962.0	1,496	59,420
Annual Fuel Use (MMscf/yr)[2]	28.394	28.394	1.467	58.255

Notes:

[1] 7.48 MMBtu/hr for 200 hrs/yr

[2] Default HHV = 1,020 Btu/cf

Table F-4b: Electric Power Process Rates - Case 2 (2 x 2,000 HP EDC)

Parameter	New EDC 1	New EDC 2	Average Plant Loads[1]	Total
Annual Process Rate (MWh/yr)	6,109	6,109	6,454	18,672
Rated Load (kW)	1,570.5	1,570.5	736.8	—
Operating Hours at Rated Load	3,890	3,890	8,760	—

Notes:

[1] Average Plant Loads at 51.9% annual capacity factor

Table F-4c: GHG Emission Factors

Greenhouse Gases	GWP[1]	Natural Gas (kg/MMBtu)[2]	Electric Power (lbs/MWh)[3]
CO_2	1	53.02	260.788
CH_4	25	0.001	0.033
N_2O	298	0.0001	0.004
CO_2e	**-**	**53.07**	**262.8**

Notes:

[1] Table A-1 to Subpart A of Part 98—Global Warming Potentials (CO_2 = 1, CH_4 = 25, N_2O = 298)

[2] 40 CFR 98 Subpart C - Default GHG Emission Factors and Higher Heating Values for Various Fuels

[3] CalEEMod SCE 2031 Power Content (https://www.caleemod.com/user-guide)

Table F-4d: Project Emissions (MT/yr) - Case 2 (2 x 2,000 HP EDC)

Greenhouse Gases	New Compressor Engines	New Standby Generator	Worker Vehicles	Indirect Emissions	Total Project Emissions
CO_2	3071.1	79.3	17.6	2208.7	5376.8
CH_4	0.0579	0.0015	0.00	0.28	0.34
N_2O	0.0058	0.0001	0.00	0.03	0.04
CO_2e	**3,074**	**79**	**18**	**2,226**	**5,397**

Notes:

Project emissions based on Projected actual usage for the 2 new compressor engines and emergency generator and electricity usage

Commuting emissions based on 4 worker vehicles commuting up to 32 miles per trip one way calculated with EMFAC

1,900 HP NG units (engines)=	**57,924**	**MMBtu/year total for both gas engine units (projected)**
2,000 HP EDC units (motors)=	**12,217,175**	**kWh/year total for both electric motor units (projected)**

Table F-4e: Standard Physical Constants

Description	Value	Units
Mass Conversion	453.6	g/lb
Mass Conversion	2,204.6	lbs/MT
Default HHV	1,020	BTU/scf

Table F-5: Project Baseline GHG Emission Estimates

Table F-5a: Baseline Process Throughputs

Year	HP1 (MMscf)	HP2 (MMscf)	HP3 (MMscf)	Diesel Generator (gallons)	Electric Power (MWh)
2021	26.316	29.364	28.003	103.39	529.151
2022	32.076	28.276	35.150	19.12	569.621

Table F-5b: Emission Factors

Greenhouse Gases	GWP[1]	Natural Gas (kg/MMBtu)[2]	Natural Gas (lbs/MMscf)	Diesel Fuel (kg/gal)[2]	Electric Power (lbs/MWh)[3]
CO_2	1	53.02	119,225	10.21	369.671
CH_4	25	0.001	2.25	0.0004	0.033
N_2O	298	0.0001	0.22	0.00008	0.004
CO_2e	**-**	**53.07**	**119,348**	**10.24**	**371.7**

Notes:

[1] Table A-1 to Subpart A of Part 98—Global Warming Potentials (CO_2 = 1, CH_4 = 25, N_2O = 298)

[2] 40 CFR 98 Subpart C - Default GHG Emission Factors and Higher Heating Values for Various Fuels

[3] CalEEMod SCE 2021 & 2022 Average Power Content (https://www.caleemod.com/user-guide)

Table F-5c: 2021 Emissions (MT/yr)

Greenhouse Gases	HP1	HP2	HP3	Total
CO_2	1,423	1,588	1,514.40	4,525.58
CH_4	0.027	0.030	0.029	0.085
N_2O	0.003	0.003	0.003	0.009
CO_2e	**1,425**	**1,590**	**1,516**	**4,530**

Table F-5d: 2022 Emissions (MT/yr)

Greenhouse Gases	HP1	HP2	HP3	Total
CO_2	1,734.67	1,529.17	1,900.91	5,164.75
CH_4	0.033	0.029	0.036	0.097
N_2O	0.003	0.003	0.004	0.010
CO_2e	**1,736**	**1,531**	**1,903**	**5,170**

Table F-5e: Baseline GHG Emissions (MT/yr)

Greenhouse Gases	Compressor Engines	Emergency Generator	Worker Vehicles	Indirect Emissions	Total Baseline Emissions
CO_2	4,845.17	0.63	13.22	92.12	4,951.13
CH_4	0.091	0.00003	0.0002	0.008	0.100
N_2O	0.009	0.00001	0.0003	0.001	0.010
CO_2e	**4,850**	**1**	**13**	**93**	**4,957**

Notes:

Baseline emissions based on HAE for 2021-2022 for gas compressors and emergency generator

Baseline indirect emissions based 2021-2022 electricity usage

Commuting emissions based on 3 worker vehicles commuting up to 32 miles per trip one way calculated with EMFAC

Table F-5f: Standard Physical Constants

Description	Value	Units
Mass Conversion	453.6	g/lb
Mass Conversion	2,204.6	lbs/MT
Default HHV	1,020	BTU/scf

Table F-6: Energy Estimates - Case 1 (2 x 2,500 HP EDC)

Table F-6a: Estimated Operation Natural Gas Consumption - Case 1 (2 x 2,500 HP EDC)

Device	Type	Power Output (BHP)	Fuel Consumption (MMcf/yr)
New Equipment Operation (Projected Actual)			
New Compressor Engine 1	Gas Engine	1,900	15.93
New Compressor Engine 2	Gas Engine	1,900	15.93
New Standby Generator	Gas Engine	840	1.47
Total Annual Natural Gas Consumption (Projected)			***33.33***
Existing Equipment Actuals (2021-2022 Baseline)			
Existing Compressor HP1	Gas Engine	1,100	29.20
Existing Compressor HP2	Gas Engine	1,100	28.82
Existing Compressor HP3	Gas Engine	1,100	31.58
Total Annual Natural Gas Consumption (Actuals)			***89.59***
Net Annual Natural Gas Consumption			**(56.27)**

Table F-6b: Estimated Operation Electric Power Usage - Case 1 (2 x 2,500 HP EDC)

Device	Type	Energy Input (kW)	Electric Power (MWh/yr)
New Equipment Operation (Projected Actual)			
New 2,500 HP EDC 1	3-Phase Motor	1,963.2	7,451
New 2,500 HP EDC 2	3-Phase Motor	1,963.2	7,451
Plant Utilities & Auxiliaries[1]	Other Loads	736.8	6,454
Total Annual Electric Power Consumption (Projected)			***21,356***
Existing Equipment Actuals (2021-2022 Baseline)			
Plant Utilities & Auxiliaries[2]	Other Loads	62.7	549
Total Annual Electric Power Consumption (Actuals)			***549***
Net Annual Electric Power Consumption			**20,807**

Notes:

[1] Projected annual capacity for non-compressor equipment

[2] Average actual electric power usage during 2021 and 2022

4.66 MW peak load

Table F-7: Energy Estimates - Case 2 (2 x 2,000 HP EDC)

Table F-7a: Estimated Operation Natural Gas Consumption - Case 2 (2 x 2,000 HP EDC)

Device	Type	Power Output (BHP)	Fuel Consumption (MMcf/yr)
New Equipment Operation (Projected Actual)			
New Compressor Engine 1	Gas Engine	1,900	28.39
New Compressor Engine 2	Gas Engine	1,900	28.39
New Back-up Generator	Gas Engine	840	1.47
Total Annual Natural Gas Consumption (Projected)			***58.25***
Existing Equipment Actuals (2021-2022 Baseline)			
Existing Compressor HP1	Gas Engine	1,100	29.20
Existing Compressor HP2	Gas Engine	1,100	28.82
Existing Compressor HP3	Gas Engine	1,100	31.58
Total Annual Natural Gas Consumption (Actuals)			***89.59***
Net Annual Natural Gas Consumption			**(31.34)**

Table F-7b: Estimated Operation Electric Power Usage - Case 2 (2 x 2,000 HP EDC)

Device	Type	Energy Input (kW)	Electric Power (MWh/yr)
New Equipment Operation (Projected Actual)			
New 2,000 HP EDC 1	3-Phase Motor	1,570.5	6,109
New 2,000 HP EDC 2	3-Phase Motor	1,570.5	6,109
Plant Utilities & Auxiliaries[1]	Other Loads	736.8	6,454
Total Annual Electric Power Consumption (Projected)			***18,672***
Existing Equipment Actuals (2021-2022 Baseline)			
Plant Utilities & Auxiliaries[2]	Other Loads	62.7	549
Total Annual Electric Power Consumption (Actuals)			***549***
Net Annual Electric Power Consumption			**18,122**

Notes:

[1] Projected annual capacity for non-compressor equipment

[2] Average actual electric power usage during 2021 and 2022

3.88 MW peak load

Table F-8: Worker Commute GHG Emission Estimaates

Table F-8a: VCM Worker Commuting Mobile Source Emissions - Baseline (3 workers)

Greenhouse Gases	Daily (lbs/day)	Annual (MT/yr)
CO_2	112.1	13.22
CH_4	0.001	0.0002
N_2O	0.002	0.0003
CO_2e	**113**	**13**

Sources: EMFAC2021, IPCC 2007 (AR4)

Notes:

Aggregated LDA, LDT1, LDT2 mix for 2031; gasoline fuel

Baseline assumes 3 workers in 3 vehicles

Daily VMT = 192 miles/day (6 trips x 32 miles one-way in Ventura County)

Table F-8b: VCM Worker Commuting Mobile Source Emissions - Project (4 workers)

Greenhouse Gases	Daily (lbs/day)	Annual (MT/yr)
CO_2	149.4	17.62
CH_4	0.002	0.0002
N_2O	0.003	0.0003
CO_2e	**150**	**18**

Sources: EMFAC2021, IPCC 2007 (AR4)

Notes:

Aggregated LDA, LDT1, LDT2 mix for 2031; gasoline fuel

Project assumes 4 workers in 4 vehicles

Daily VMT = 256 miles/day (8 trips x 32 miles one-way in Ventura County)

Table F-8c: VCM Worker Commuting Mobile Source Emissions - Project Increase (from 3 to 4 workers)

Greenhouse Gases	Daily (lbs/day)	Annual (MT/yr)
CO_2	37.4	4.4
CH_4	0.000	0.0001
N_2O	0.001	0.0001
CO_2e	**38**	**4**

Table F-8d: VCM Worker Commuting Estimated Energy Use

Fuel/Period	MT CO_2	CO_2 Emission Factor (kg/gal)	Fuel Consumption (gal/yr)
Gasoline/Baseline	13.2	8.78	1,510
Gasoline/Project	17.6	8.78	2,010
Gasoline/Increase	4.4	8.78	500

Sources: EMFAC2021, 40 CFR 98 Subpart C

Notes:

Aggregated LDA, LDT1, LDT2 mix for 2031; gasoline fuel

Assumes 3 workers in 3 vehicles Baseline

Assumes 4 workers in 4 vehicles Project

Baseline Daily VMT = 192 miles/day (6 trips x 32 miles one-way in Ventura County)

Project Daily VMT = 256 miles/day (8 trips x 32 miles one-way in Ventura County)

Table F-9: Electrical Load Chart

LOAD DESCRIPTION		LOAD						SOURCE		CONNECTED			RUNNING			
Tag	Description	Voltage	Phase	Size	Unit	PF	EFF	On Generator	Source	Connected Amps	Connected KVA	Connected KW	Demand Factor	Running Amps	Running KVA	Running KW
EM-3402	Jacket Water / Auxiliary Water Cooler Fan (Train 1)	480	3	40	HP	0.9	0.85	Y	MCC-1000	46.92	39.01	35.11	0.8	37.53	31.21	28.08
PM-3404	Aux Lube Oil Pump (Train 1)	480	3	5	HP	0.9	0.85	Y	MCC-1000	5.86	4.88	4.39	0.0	0.00	0.00	0.00
CP-3400	Engine/Compressor Control Panel #1	480	3	1	KW	1	-	Y	MCC-1000	1.20	1.00	1.00	1.0	1.20	1.00	1.00
HE-3402	Hot Start Compressor Engine Oil Heater (Train 1)	480	3	9	KW	1	-	Y	MCC-1000	10.83	9.00	9.00	1.0	10.83	9.00	9.00
HE-3405	Hot Start Circulating Water Heater (Train 1)	480	3	30	KW	1	-	Y	MCC-1000	36.08	30.00	30.00	1.0	36.08	30.00	30.00
PM-3402	Hot Start Circulating Water Pumps (Train 1)	480	3	1.5	KW	1	-	Y	MCC-1000	1.80	1.50	1.50	1.0	1.80	1.50	1.50
PM-3405	Hot Start Engine Circulating Oil Pump (Train 1)	480	3	30	KW	1	-	Y	MCC-1000	36.08	30.00	30.00	1.0	36.08	30.00	30.00
HE-3404	Compressor Frame Oil Heater (Train 1)	480	3	2.5	KW	1	-	Y	MCC-1000	3.01	2.50	2.50	1.0	3.01	2.50	2.50
PM-3403	Compressor Cylinder Oil Pump (Train 1)	480	3	1	HP	0.9	0.85	Y	MCC-1000	1.17	0.98	0.88	0.8	0.94	0.78	0.70
EM-3400A	Discharge Cooler Fan #1 (Train 1)	480	3	25	HP	0.9	0.85	Y	MCC-1000	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-3400B	Discharge Cooler Fan #2 (Train 1)	480	3	25	HP	0.9	0.85	Y	MCC-1000	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-3502	Jacket Water / Auxiliary Water Cooler Fan (Train 2)	480	3	40	HP	0.9	0.85	Y	MCC-1000	46.92	39.01	35.11	0.8	37.53	31.21	28.08
PM-3504	Aux Lube Oil Pump (Train 2)	480	3	5	HP	0.9	0.85	Y	MCC-1000	5.86	4.88	4.39	0.0	0.00	0.00	0.00
CP-3500	Engine/Compressor Control Panel #2	480	3	1	KW	0.9	-	Y	MCC-1000	1.34	1.11	1.00	1.0	1.34	1.11	1.00
HE-3502	Hot Start Compressor Engine Oil Heater (Train 2)	480	3	9	KW	1	-	Y	MCC-1000	10.83	9.00	9.00	1.0	10.83	9.00	9.00
HE-3505	Hot Start Circulating Water Heater (Train 2)	480	3	30	KW	1	-	Y	MCC-1000	36.08	30.00	30.00	1.0	36.08	30.00	30.00
PM-3502	Hot Start Circulating Water Pumps (Train 2)	480	3	1.5	KW	1	-	Y	MCC-1000	1.80	1.50	1.50	1.0	1.80	1.50	1.50
PM-3505	Hot Start Engine Circulating Oil Pump (Train 2)	480	3	3	HP	0.9	0.85	Y	MCC-1000	3.52	2.93	2.63	1.0	3.52	2.93	2.63
HE-3504	Compressor Frame Oil Heater (Train 2)	480	3	2.5	KW	1	-	Y	MCC-1000	3.01	2.50	2.50	1.0	3.01	2.50	2.50
PM-3503	Compressor Cylinder Oil Pump (Train 2)	480	3	1	HP	0.9	0.85	Y	MCC-1000	1.17	0.98	0.88	0.8	0.94	0.78	0.70
EM-3500A	Discharge Cooler Fan #1 (Train 2)	480	3	25	HP	0.9	0.85	Y	MCC-1000	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-3500B	Discharge Cooler Fan #2 (Train 2)	480	3	25	HP	0.9	0.85	Y	MCC-1000	29.32	24.38	21.94	0.8	23.46	19.50	17.55
CP-3600	Engine/Compressor Control Panel #3	480	3	1	KW	0.9	-	N	MCC-1001	1.34	1.11	1.00	1.0	1.34	1.11	1.00
HE-3602	Hot Start Compressor Engine Oil Heater (Train 3)	480	3	9	KW	1	-	N	MCC-1001	10.83	9.00	9.00	1.0	10.83	9.00	9.00
PM-3605	Hot Start Circulating Oil Pump (Train 3)	480	3	3	HP	0.9	0.85	N	MCC-1001	3.52	2.93	2.63	1.0	3.52	2.93	2.63
HE-3604	Compressor Fame Oil Heater (Train 3)	480	3	2.5	KW	1	-	N	MCC-1001	3.01	2.50	2.50	1.0	3.01	2.50	2.50
PM-3603	Compressor Cylinder Oil Pump (Train 3)	480	3	1	HP	0.9	0.85	N	MCC-1001	1.17	0.98	0.88	0.8	0.94	0.78	0.70
EM-3600A	Discharge Cooler Fan #1 (Train 3)	480	3	25	HP	0.9	0.85	N	MCC-1001	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-3600B	Discharge Cooler Fan #2 (Train 3)	480	3	25	HP	0.9	0.85	N	MCC-1001	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-360X	Lube Oil Cooler Fan #1 (Train 3)	480	3	2.5	HP	0.9	0.85	N	MCC-1001	2.93	2.44	2.19	0.8	2.35	1.95	1.76
TBA	Cylinder Lubricator Pump Motor (Train 3)	480	3	0.75	HP	0.9	0.85	N	MCC-1001	0.88	0.73	0.66	0.8	0.70	0.59	0.53
CP-3700	Engine/Compressor Control Panel #4	480	3	1	KW	0.9	-	N	MCC-1001	1.34	1.11	1.00	1.0	1.34	1.11	1.00
HE-3702	Hot Start Compressor Engine Oil Heater (Train 4)	480	3	9	KW	1	-	N	MCC-1001	10.83	9.00	9.00	1.0	10.83	9.00	9.00
PM-3705	Hot Start Engine Circulating Oil Pump (Train 4)	480	3	3	HP	0.9	0.85	N	MCC-1001	3.52	2.93	2.63	1.0	3.52	2.93	2.63
HE-3704	Compressor Frame Oil Heater (Train 4)	480	3	2.5	KW	1	-	N	MCC-1001	3.01	2.50	2.50	1.0	3.01	2.50	2.50
PM-3703	Compressor Cylinder Oil Pump (Train 4)	480	3	1	HP	0.9	0.85	N	MCC-1001	1.17	0.98	0.88	0.8	0.94	0.78	0.70
EM-3700A	Discharge Cooler Fan #1 (Train 4)	480	3	25	HP	0.9	0.85	N	MCC-1001	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-3700B	Discharge Cooler Fan #2 (Train 4)	480	3	25	HP	0.9	0.85	N	MCC-1001	29.32	24.38	21.94	0.8	23.46	19.50	17.55
EM-370X	Lube Oil Cooler Fan #1 (Train 4)	480	3	2.5	HP	0.9	0.85	Y	MCC-1001	2.93	2.44	2.19	0.8	2.35	1.95	1.76
TBA	Cylinder Lubricator Pump Motor (Train 4)	480	3	0.75	HP	0.9	0.85	Y	MCC-1001	0.88	0.73	0.66	0.8	0.70	0.59	0.53
CM-4001A	Instrument Air Compressor A	480	3	40	HP	0.9	0.85	Y	MCC-1000	46.92	39.01	35.11	0.8	37.53	31.21	28.08
CM-4001B	Instrument Air Compressor B	480	3	40	HP	0.9	0.85	Y	MCC-1001	46.92	39.01	35.11	0.0	0.00	0.00	0.00
EM-4001	Instrument Air Cooler / Oil Cooler Fan	480	3	2	HP	0.9	0.85	Y	MCC-1000	2.35	1.95	1.76	0.8	1.88	1.56	1.40
C-4003A	Starting Air Compressor A	480	3	40	HP	0.9	0.85	Y	MCC-1000	46.92	39.01	35.11	0.1	4.69	3.90	3.51
C-4003B	Starting Air Compressor B	480	3	40	HP	0.9	0.85	Y	MCC-1001	46.92	39.01	35.11	0.1	4.69	3.90	3.51
D-4003A/B	Starting Air Compressor - Dryer Booster	480	3	15	HP	0.9	0.85	Y	MCC-1000	17.59	14.63	13.16	0.1	1.76	1.46	1.32
D-4001A/B	Instrument Air Compressor - Dryer Booster	480	3	15	HP	0.9	0.85	Y	MCC-1001	17.59	14.63	13.16	0.1	1.76	1.46	1.32
EM-4003	Starting Air Cooler / Oil Cooler Fan	480	3	1	HP	0.9	0.85	Y	MCC-1001	1.17	0.98	0.88	0.1	0.12	0.10	0.09
GEN-1000	Generator Auxiliary Loads	480	3	15	HP	0.9	0.85	Y	MCC-1000	17.59	14.63	13.16	0.8	14.08	11.70	10.53
PM-4001	Engine Oil Charge Pump	480	3	3	HP	0.9	0.85	Y	MCC-1000	3.52	2.93	2.63	0.8	2.82	2.34	2.11
M-1001	Compressor Building Induced Fan #1	480	3	2	HP	1	1	Y	MCC-1000	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1002	Compressor Building Induced Fan #2	480	3	2	HP	1	1	Y	MCC-1000	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1003	Compressor Building Induced Fan #3	480	3	2	HP	1	1	Y	MCC-1000	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1004	Compressor Building Induced Fan #4	480	3	2	HP	1	1	Y	MCC-1001	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1005	Compressor Building Induced Fan #5	480	3	2	HP	1	1	N	MCC-1001	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1006	Compressor Building Induced Fan #6	480	3	2	HP	1	1	N	MCC-1001	1.79	1.49	1.49	0.8	1.44	1.19	1.19
M-1007	Compressor Building Roll Up Door	480	3	1	KW	1	1	N	MCC-1001	1.20	1.00	1.00	0.8	0.96	0.80	0.80
CR-4001	Compressor House EOT Crane	480	3	23	HP	1	1	N	MCC-1001	20.64	17.16	17.16	0.8	16.51	13.73	13.73
CR-4002	Jib Crane	480	3	5	HP	0.9	0.85	N	MCC-1001	5.86	4.88	4.39	0.1	0.59	0.49	0.44
TX-1001	Outdoor Lighting Panel XFMR	480	3	30	KVA	0.85	-	Y	MCC-1000	36.08	30.00	25.50	0.5	18.04	15.00	12.75
TX-1003	Power Distribution Panel XFMR	480	3	30	KVA	0.85	-	Y	MCC-1001	36.08	30.00	25.50	0.5	18.04	15.00	12.75
UPS-1000-1	UPS	480	3	15	KW	0.9	-	Y	MCC-1001	20.05	16.67	15.00	0.9	18.04	15.00	13.50
UPS-1000-2	UPS (Redundant Feed)	480	3	15	KW	0.9	-	Y	MCC-1000	20.05	16.67	15.00	0.0	0.00	0.00	0.00
TX-1002	Lighting/Receptacle XFMR #1	480	3	30	KVA	0.85	-	Y	MCC-1000	36.08	30.00	25.50	0.5	18.04	15.00	12.75
TX-1004	Lighting/Receptacle XFMR #2	480	3	30	KVA	0.85	-	Y	MCC-1001	36.08	30.00	25.50	0.1	3.61	3.00	2.55
HVAC-1000	PDC AC-1 (37 Tons)	480	3	37	A	0.9	-	Y	MCC-1001	37.00	30.76	27.69	0.8	29.60	24.61	22.15
HVAC-1001	PDC AC-2 (37 Tons)	480	3	37	A	0.9	-	Y	MCC-1000	37.00	30.76	27.69	0.0	0.00	0.00	0.00
HVAC-1002	PDC AC-3 (3 Tons)	480	3	12	A	0.9	-	Y	MCC-1001	12.00	9.98	8.98	0.8	9.60	7.98	7.18
HVAC-1003	PDC AC-4 (5 Tons)	480	3	20	A	0.9	-	Y	MCC-1000	20.00	16.63	14.96	0.8	16.00	13.30	11.97
HVAC-1004	PDC AC-5 (5 Tons)	480	3	20	A	0.9	-	Y	MCC-1001	20.00	16.63	14.96	0.0	0.00	0.00	0.00
WR-1000	Welding Outlet #1	480	3	50	HP	0.9	0.85	N	MCC-1000	58.65	48.76	43.88	0.1	5.86	4.88	4.39
WR-1001	Welding Outlet #2	480	3	50	HP	0.9	0.85	N	MCC-1000	58.65	48.76	43.88	0.1	5.86	4.88	4.39
WR-1002	Welding Outlet #3	480	3	50	HP	0.9	0.85	N	MCC-1000	58.65	48.76	43.88	0.1	5.86	4.88	4.39
WR-1003	Welding Outlet #4	480	3	50	HP	0.9	0.85	N	MCC-1001	58.65	48.76	43.88	0.1	5.86	4.88	4.39
WR-1004	Welding Outlet #5	480	3	50	HP	0.9	0.85	N	MCC-1001	58.65	48.76	43.88	0.1	5.86	4.88	4.39
WR-1005	Welding Outlet #6	480	3	50	HP	0.9	0.85	N	MCC-1001	58.65	48.76	43.88	0.1	5.86	4.88	4.39
TBA	CEMS Shelter (Train #1 & #2)	480	3	30	KVA	0.85	-	Y	MCC-1000	36.08	30.00	25.50	0.8	28.87	24.00	20.40
BC-1000	Battery Charger #1	480	3	10	A	0.9	-	Y	MCC-1000	10.00	8.31	7.48	0.8	8.00	6.65	5.99
BC-1001	Battery Charger #2	480	3	10	A	0.9	-	Y	MCC-1001	10.00	8.31	7.48	0.8	8.00	6.65	5.99
TBA	PDC-1001 Auxiliary Loads	480	3	50	KW	0.85	-	Y	MCC-1001	70.75	58.82	50.00	0.8	56.60	47.06	40.00
TBA	Antenna Building	480	3	30	KVA	0.85	-	Y	MCC-1001	36.08	30.00	25.50	0.5	18.04	15.00	12.75
TBA	Office Building	480	3	142	KVA	0.85	-	Y	SG-1001	170.80	142.00	120.70	0.4	68.32	56.80	48.28
TBA	Warehouse Building	480	3	38	KVA	0.85	-	Y	SG-1001	45.71	38.00	32.30	0.7	31.99	26.60	22.61
TBA	VRU-1	480	3	20	HP	0.85	0.93	N	TBD	23.20	17.00	15.00		23.00	17.00	15.00
TBA	VRU-2	480	3	20	HP	0.85	0.93	N	TBD	23.20	17.00	15.00		23.00	17.00	15.00
Sources: Burns-McDonnell, SoCalGas														Utilities & Auxiliaries, Total Running KW		736.8