
APPENDIX B

CALEEMOD RESULTS



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To: Teri Wissler Adam,
From: Sally Rideout, EMPA, Principal Planner
Cc: David Craft, Senior Planner
Date: May 27, 2021

Re: 355 First Street – CalEEMod Emissions Assessment, Methodology and Assumptions

PROJECT DESCRIPTION

The proposed project is located on four lots comprising 0.64 acres in the City of Los Altos. The proposed project is the demolition of seven existing buildings totaling 7,648 square feet, including a hair salon, coin shop, office building, a single-family residence and two outbuildings, pavement and vegetation to accommodate the construction of a 79,431 square foot, 50-unit, four story condominium building with two levels of underground parking, landscaping, and walkways. The proposed project includes replacing approximately 1,708 square feet of sidewalks within the public way on First Street and Whitney Street. The total area of disturbance during construction would be approximately 0.68 acres. The proposed parking garage is 51,023 square feet and would accommodate 115 parking spaces, 50 bicycle lockers, 50 storage units, and EV charging stations for each unit. The proposed driveway surface is interlocking pavers.

Demolition and construction activity is anticipated to occur over a period of approximately 24 months. Grading for the proposed project includes excavation of 19,000 cubic yards of soil to accommodate the proposed underground parking garage. Excavated soils would be disposed of off-site.

MEMORANDUM

The project site is located within the San Francisco Bay Area Air Basin, which is within the jurisdiction of the Bay Area Air Quality Management District (air district). An initial study is being prepared pursuant to the California Environmental Quality Act, and a community health risk assessment is being prepared to evaluate project-related single-source and cumulative construction health risks to nearby sensitive receptors within 1,000 feet of the project site.

SCOPE OF ASSESSMENT

This assessment provides assumptions, methodology, and an estimate of the proposed project's construction and operational criteria air pollutants emissions using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software, a modeling platform recommended by the California Air Resources Board (CARB) and accepted by the air district. The model results will inform the community health risk assessment and CEQA initial study discussion of air quality impacts.

Emissions Model

CalEEMod estimates construction emissions associated with land use development projects and allows for the input of project-specific construction information including phasing and equipment information. CalEEMod was used to estimate annual emissions for on-site and off-site construction activity. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The CalEEMod software utilizes emissions models USEPA AP-42 emission factors, CARB vehicle emission models studies and studies commissioned by other California agencies.

CalEEMod is capable of estimating changes in the carbon sequestration potential of a site based on changes in natural vegetation communities and the net number of new trees that would be planted as part of the project. There are no natural plant communities on the site and the proposed project would remove 19 trees and plant only 16 new trees. The sequestration potential for the proposed project would be reduced due to planting fewer trees than the number of trees that would be removed from the site.

Existing and Proposed Emissions Sources

Unless otherwise noted, operational criteria air pollutant emissions volumes are based primarily on the model's default emissions factors for the land uses and size metrics presented in [Table 1, Project Characteristics](#).

Table 1 Project Characteristics

Project Components	CalEEMod Land Use ¹	Existing ^{1,2}	Proposed ^{1,2}
Single-family residence	Single-family Housing	1 dwelling unit	0
Offices	General Office Building	2,440	0
Hair Salon/Retail	Strip Mall	3,309	-
Condominiums	Condo/Townhouse High Rise	-	50 units ³
Surface Parking Lot	Parking Lot	14 spaces	-
Parking Garage	Enclosed Parking with Elevator	-	115 spaces ⁴
Other Impervious Surfaces ⁵	Other Non-Asphalt Surfaces	NA	1,708
Trees	-	21 ⁶	38

SOURCE: Trinity Consultants 2017, Rockwood Pacific 2020.

NOTES:

1. CalEEMod default land use subtype. Descriptions of the model default land use categories and subtypes are found in the User's Guide for CalEEMod Version 2016.3.2 available online at: <http://www.aqmd.gov/cal-eemod/user's-guide>
2. Expressed in units of square feet unless otherwise noted.
3. The proposed project includes a total building area of 79,431 square feet including amenity spaces and mechanical space.
4. The total area of the parking garage is 51,203 square feet.
5. Includes other non-asphalt surfaces on and off the site.
7. To be Removed.

Methodology

Modeling was performed using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software, a modeling platform recommended by the California Air Resources Board (CARB) and accepted by the air district. Model results are attached. Unless otherwise noted, data inputs to the model take into account the type and size of the proposed uses, utilizing CalEEMod default land uses and based on the information provided in the project plans (SDG Architects Incorporated 2021), and construction data information provided by the applicant (Albert Wang, email messages. May 20, 2021; May 25, 2021).

Modeling Scenarios

Two model scenarios are used in this assessment; baseline and proposed project.

Baseline

CalEEMod default values for baseline conditions assume new development on a vacant site. This baseline scenario estimates unmitigated operational criteria air pollutant emissions generated by existing uses on the project site prior to 2020 (refer to Table 1).

Proposed Project

The proposed project scenario assumes that the project will be fully operational in the year 2024. Model adjustments are made in this scenario to account for regulatory changes that have occurred since the most current version of the model was released. The adjustments are discussed in greater detail in the operational emissions data inputs below.

Assumptions

Unless otherwise noted, data inputs for the model scenarios are based on the following primary assumptions:

1. The assumed construction start date for the proposed project is January 1, 2022.
2. The assumed operational year for modeling purposes is 2025 (CalEEMod requires an operational year after the year construction is completed).
3. Operational emissions generated by the existing uses on the site are estimated using the following CalEEMod default land use subtypes:
 - a. "Single Family Housing", which is defined as a single-family detached home on an individual lot;
 - b. "General Office Building", which may house multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted;
 - c. "Strip Mall", which contains a variety of retail shops specializing in quality apparel, hard goods and services such as real estate offices, dance studios, florists and small restaurants. The existing retail and hair salon uses are modeled under this category;
4. The existing established asphalt driveways, parking lots, landscaping, sidewalks, etc., are not sources of substantial operational emissions and are not included in the

modeling for baseline (existing) operational conditions; however, the demolition of all improvements on the site are included in the model estimates of demolition;

5. Emissions generated by the proposed use are assumed to be similar to emissions that would be generated during construction and operations of the following CalEEMod default land use subtypes:
 - a. “Condo/Townhouse High Rise”, which is defined as ownership units that have three or more levels;
 - b. “Enclosed Parking with Elevator”. Which is defined as an enclosed parking structure that may be above or below ground. It is not covered in asphalt. This land use will require lighting and ventilation, and will be more than one floor with an elevator;
 - c. “Other Non-Asphalt Surfaces” which are defined as non-asphalt areas (e.g., equipment foundations, loading dock areas, sidewalks, etc.);
6. The model default average one-way trip lengths for hauling and vendor trip lengths during demolition and construction activity were modified based on information provided by the applicant:
 - a. 20 miles for standard vendors and deliveries (48 round trips);
 - b. 11 miles for demolition spoils and soil hauling; and
 - c. 23 miles for cement deliveries (36 round trips for cement delivery);
7. Additional, inputs to the model included:
 - a. 7,648 square feet of building demolition,
 - b. 16 tons of paving demolition export are captured in vendor trips,
 - c. 19,000 cubic yards of soil export;
 - d. 800 cubic yards of soil import; and
 - e. 36 cement truck trips during building construction.

Operational Emissions Data Input

Baseline

Unmitigated operational emissions estimates were modeled for baseline conditions (existing project site land use conditions) in 2019 to approximate fully operational activity on the site pre-COVID conditions.

Proposed Project

The proposed project model run includes unmitigated operational emissions including adjustments made to account for project compliance with the State requirements for Model Water Efficient Landscape Ordinance (MWELO), 2019 Title 24 building energy efficiency standards, and compliance with Los Altos Municipal Code Chapter 12.64, prohibitions on wood-burning fireplaces. Additional model adjustments were made to reflect the proposed below market rate units (16 percent) and increased density in the Los Altos Downtown Commercial general plan land use designation and Downtown Core zone district.

The Title 24 building energy efficiency defaults in CalEEMod Version 2016.3.2 are the 2016 Title 24 standards. Title 24 standards are updated every three years. The 2019 Title 24 standards were recently adopted and become effective on January 1, 2020 (California Energy Commission 2018). Projects that buildout after January 1, 2020 will be required to comply with the 2019 Title 24 standards. An adjustment of 30 percent was made to the energy mitigation screen under the proposed project scenario to account for reductions in energy demand from increased building energy efficiencies above the 2016 Title 24 standards due to compliance with the 2019 Title 24 standards (California Energy Commission 2021).

The model's default CO₂ intensity factor of 641 pounds/megawatt hour is adjusted to 206 pounds/megawatt hour to reflect Pacific Gas & Electric energy intensity values for 2020. The intensity factor has been falling, in significant part due to the increasing percentage of Pacific Gas & Electric's energy portfolio obtained from renewable energy. Emissions intensity data is from Pacific Gas & Electric's *Greenhouse Gas Factors: Guidance for PG&E Customers*, dated November 2015.

Each air district (or county) assigns trip lengths for urban and rural settings, which are incorporated into the CalEEMod defaults. The model's defaults were set to "urban" and the jurisdictional authority parameters are based on the model defaults for the air district.

Construction Emissions Data Inputs

CalEEMod default construction parameters allow estimates of short-term construction emissions based upon empirical data collected and analyzed by the California Air Resources Board. The CalEEMod program allows modeling of construction emissions associated with land use development projects and allows for the input of project-specific construction information including phasing and equipment information, if known.

Unless otherwise noted, construction data inputs to the model take into account the type and size of equipment for demolition and construction of the proposed project utilizing the CalEEMod default land uses identified in Table 1. Size metrics for demolition materials, cut and fill, and soil import/export are derived from the project plans and construction information prepared by SDG Architects, Inc. and JETT Landscape Architecture + Design (March 2021), BKF Engineers (April 2021) (Wang 2021). Changes to the model defaults are noted in the CalEEMod results attached to this memorandum. The number and type of equipment was not yet known in detail sufficient to modify the model; therefore, the number and type of construction equipment is based on the model default construction equipment by phase.

RESULTS

Operational Emissions

Existing and proposed operational emissions are estimated. [Table 2, Unmitigated Operational Emissions](#), presents the net change between the unmitigated existing and proposed criteria pollutant emissions.

Table 2 Unmitigated Operational Criteria Pollutant Emissions

Emissions Scenarios	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO _x)	Suspended Particulates (PM ₁₀)	Total Fine Particulates (PM _{2.5})	Carbon Monoxide (CO)
Existing ^{1,2}	0.09	0.21	0.11	0.03	0.50
Proposed ^{1,2}	0.43	0.23	0.15	0.04	0.23
Change ^{1,2}	0.34	0.02	0.04	0.01	-0.27 ³
Net Average Daily Emissions ^{1,4}	1.86	0.11	0.22	0.05	-1.48 ³

SOURCE: EMC Planning Group 2021

NOTES:

1. Results may vary due to rounding.
2. Expressed in tons per year.
3. The proposed project would result in fewer emissions.
4. Expressed in pounds per day: A U.S. ton is equal to 2,000 pounds. The emissions estimates in tons per year are multiplied by 2,000 pounds to arrive at emissions volume in pounds per year, then divided by 365 days per year to arrive at pounds per day.

Construction Emissions

Detailed model results for construction criteria air pollutant emissions are included as attachments to this assessment. The unmitigated criteria air pollutant emissions resulting from project construction are summarized in [Table 2, Unmitigated Construction Criteria Air Pollutant Emissions](#).

Table 2 Unmitigated Construction Criteria Air Pollutant Emissions

Emissions	Reactive Organic Gases (ROG)	Nitrogen Oxides (NO _x)	Exhaust Respirable Particulate Matter (PM ₁₀)	Total Fine Particulate Matter (PM _{2.5})
2022 ^{1,2}	0.70	1.49	0.05	0.08
2023 ^{1,2}	0.01	0.03	<0.01	<0.01
Total Emissions ^{1,2}	0.71	1.52	0.05	0.08
Average Daily Emissions ^{1,2}	4.93	10.6	0.35	0.44

SOURCE: EMC Planning Group 2021

NOTES:

1. Results may vary due to rounding.
2. CalEEMod estimates construction criteria air pollutant emissions in tons per year. A U.S. ton is equal to 2,000 pounds. The emissions estimates in tons per year are multiplied by 2,000 pounds to arrive at emissions volume in pounds per year. CalEEMod estimates a total of 288 construction days. Average daily emissions (in pounds per day) are computed by dividing the annual construction emissions (in pounds per year) by the number of construction days.

SOURCES

1. Trinity Consultants. November 2017. *California Emissions Estimator (CalEEMod) Version 2016.3.2*. Available online at: <http://www.aqmd.gov/caleemod/home>
2. Trinity Consultants. November 2017. *CalEEMod User's Guide (Version 2016.3.2)*. Available online at: <http://www.aqmd.gov/caleemod/user's-guide>

3. Bay Area Air Quality Management District. May 2017. *California Environmental Quality Act Air Quality Guidelines*. http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en
4. Google, Inc. 2021. Google Earth.
5. Pacific Gas & Electric. November 2015. *Greenhouse Gas Factors: Guidance for PG&E Customers*; Accessed December 13, 2019. https://www.ca-ilg.org/sites/main/files/file-attachments/ghg_emission_factor_guidance.pdf?1436996158
6. California Energy Commission. March 2018. *2019 Building Energy Efficiency Standards Frequently Asked Questions*.
https://ww2.energy.ca.gov/title24/2019standards/documents/Title_24_2019_Building_Standards_FAQ_ada.pdf
- 7.
8. SDG Architects9. 355 1st Street. March 31, 2021
BKF Engineers. April 1, 2021. San Jose CA 355-373 1st Street Existing Conditions
JETT Landscape Architecture + Design 355 1st Street Landscape Plan Ground Floor March 31, 2021

Category	tons/yr										MT/yr					
Area	0.0399	2.2000e-004	0.0161	2.0000e-005		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.1271	0.0434	0.1706	2.5000e-004	1.0000e-005	0.1790
Energy	5.6000e-004	5.0100e-003	3.4000e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	26.8602	26.8602	1.0700e-003	3.0000e-004	26.9767
Mobile	0.0474	0.2084	0.4778	1.3300e-003	0.1033	1.7200e-003	0.1051	0.0278	1.6200e-003	0.0294	0.0000	121.7837	121.7837	5.5000e-003	0.0000	121.9213
Waste						0.0000	0.0000		0.0000	0.0000	1.4230	0.0000	1.4230	0.0841	0.0000	3.5253
Water						0.0000	0.0000		0.0000	0.0000	0.2360	1.6366	1.8727	0.0243	5.9000e-004	2.6557
Total	0.0878	0.2137	0.4973	1.3800e-003	0.1033	3.3900e-003	0.1067	0.0278	3.2900e-003	0.0310	1.7861	150.3239	152.1101	0.1152	9.0000e-004	155.2581

355 First Street Condominiums Los Altos CA CONSTRUCTION - Bay Area AQMD Air District, Annual

355 First Street Condominiums Los Altos CA CONSTRUCTION
Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	51.02	1000sqft	0.00	51,020.00	0
Other Non-Asphalt Surfaces	1.70	1000sqft	0.04	1,700.00	0
Condo/Townhouse High Rise	50.00	Dwelling Unit	0.64	79,431.00	143

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	206	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - Carbon intensity factor updated per CEC
- Land Use - Includes off-site sidewalk improvements
- Vehicle Trips - Updated to ITE 9th edition
- Construction Phase - Derived from applicant information (24 months total)
- Grading -
- Demolition - Derived from Applicant information
- Trips and VMT - Derived from applicant information

Construction Off-road Equipment Mitigation - Standard BAAQMD dust control watering and vehicle speed

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	5
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	48.00
tblConstructionPhase	NumDays	100.00	200.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	NumDays	5.00	10.00
tblConstructionPhase	PhaseEndDate	1/17/2022	1/28/2022
tblConstructionPhase	PhaseEndDate	1/19/2022	4/6/2022
tblConstructionPhase	PhaseEndDate	6/8/2022	1/11/2023
tblConstructionPhase	PhaseEndDate	6/15/2022	1/25/2022
tblConstructionPhase	PhaseEndDate	6/22/2022	2/8/2022
tblConstructionPhase	PhaseStartDate	1/18/2022	1/29/2022
tblConstructionPhase	PhaseStartDate	1/20/2022	4/7/2022
tblConstructionPhase	PhaseStartDate	6/9/2022	1/12/2022
tblConstructionPhase	PhaseStartDate	6/16/2022	1/26/2022
tblFireplaces	NumberGas	7.50	16.00
tblFireplaces	NumberWood	8.50	0.00
tblGrading	MaterialExported	0.00	19,000.00
tblGrading	MaterialImported	0.00	800.00
tblLandUse	LandUseSquareFeet	50,000.00	79,431.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	0.78	0.64
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblTripsAndVMT	HaulingTripLength	20.00	23.00
tblTripsAndVMT	HaulingTripLength	20.00	23.00
tblTripsAndVMT	HaulingTripNumber	0.00	72.00
tblTripsAndVMT	VendorTripLength	7.30	10.00

tblTripsAndVMT	VendorTripLength	7.30	20.00
tblTripsAndVMT	VendorTripLength	7.30	20.00
tblVehicleTrips	WD_TR	4.18	5.18

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6985	1.4901	1.2231	3.8400e-003	0.1161	0.0506	0.1666	0.0361	0.0470	0.0831	0.0000	353.7963	353.7963	0.0479	0.0000	354.9941
2023	3.4000e-003	0.0331	0.0351	1.0000e-004	3.3700e-003	1.3100e-003	4.6700e-003	9.1000e-004	1.2000e-003	2.1100e-003	0.0000	8.9182	8.9182	1.4300e-003	0.0000	8.9540
Maximum	0.6985	1.4901	1.2231	3.8400e-003	0.1161	0.0506	0.1666	0.0361	0.0470	0.0831	0.0000	353.7963	353.7963	0.0479	0.0000	354.9941

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.6985	1.4901	1.2231	3.8400e-003	0.1036	0.0506	0.1542	0.0303	0.0470	0.0773	0.0000	353.7962	353.7962	0.0479	0.0000	354.9939
2023	3.4000e-003	0.0331	0.0351	1.0000e-004	3.3700e-003	1.3100e-003	4.6700e-003	9.1000e-004	1.2000e-003	2.1100e-003	0.0000	8.9182	8.9182	1.4300e-003	0.0000	8.9540
Maximum	0.6985	1.4901	1.2231	3.8400e-003	0.1036	0.0506	0.1542	0.0303	0.0470	0.0773	0.0000	353.7962	353.7962	0.0479	0.0000	354.9939

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	10.43	0.00	7.27	15.61	0.00	6.78	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2022	4-2-2022	1.1471	1.1471

2	4-3-2022	7-2-2022	0.3550	0.3550
3	7-3-2022	10-2-2022	0.3451	0.3451
4	10-3-2022	1-2-2023	0.3474	0.3474
5	1-3-2023	4-2-2023	0.0294	0.0294
		Highest	1.1471	1.1471

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/14/2022	5	10	
2	Site Preparation	Site Preparation	1/15/2022	1/28/2022	5	10	
3	Grading	Grading	1/29/2022	4/6/2022	5	48	
4	Building Construction	Building Construction	4/7/2022	1/11/2023	5	200	
5	Paving	Paving	1/12/2022	1/25/2022	5	10	
6	Architectural Coating	Architectural Coating	1/26/2022	2/8/2022	5	10	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.04

Residential Indoor: 160,848; Residential Outdoor: 53,616; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	8.00	10.80	10.00	23.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,475.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	58.00	14.00	72.00	10.80	20.00	23.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	12.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.1000e-004	0.0000	8.1000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	3.5500e-003	0.0321	0.0374	6.0000e-005	8.1000e-004	1.6900e-003	2.5000e-003	1.2000e-004	1.6100e-003	1.7300e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0900e-003	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3376	0.3376	2.0000e-005	0.0000	0.3380
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3218	0.3218	1.0000e-005	0.0000	0.3219
Total	1.7000e-004	1.1800e-003	1.2800e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.6594	0.6594	3.0000e-005	0.0000	0.6600

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					3.7000e-004	0.0000	3.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	3.5500e-003	0.0321	0.0374	6.0000e-005	3.7000e-004	1.6900e-003	2.0600e-003	6.0000e-005	1.6100e-003	1.6700e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.0900e-003	2.5000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3376	0.3376	2.0000e-005	0.0000	0.3380
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	9.0000e-005	1.0300e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3218	0.3218	1.0000e-005	0.0000	0.3219
Total	1.7000e-004	1.1800e-003	1.2800e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.6594	0.6594	3.0000e-005	0.0000	0.6600

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.6500e-003	0.0000	2.6500e-003	2.9000e-004	0.0000	2.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	2.9000e-003	0.0347	0.0198	5.0000e-005	2.6500e-003	1.2900e-003	3.9400e-003	2.9000e-004	1.1800e-003	1.4700e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1609	0.1609	0.0000	0.0000	0.1610
Total	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1609	0.1609	0.0000	0.0000	0.1610

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1900e-003	0.0000	1.1900e-003	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-003	0.0347	0.0198	5.0000e-005		1.2900e-003	1.2900e-003		1.1800e-003	1.1800e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098
Total	2.9000e-003	0.0347	0.0198	5.0000e-005	1.1900e-003	1.2900e-003	2.4800e-003	1.3000e-004	1.1800e-003	1.3100e-003	0.0000	4.2752	4.2752	1.3800e-003	0.0000	4.3098

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1609	0.1609	0.0000	0.0000	0.1610
Total	7.0000e-005	5.0000e-005	5.2000e-004	0.0000	2.0000e-004	0.0000	2.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1609	0.1609	0.0000	0.0000	0.1610

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0192	0.0000	0.0192	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1539	0.1793	2.9000e-004		8.1000e-003	8.1000e-003		7.7400e-003	7.7400e-003	0.0000	24.9926	24.9926	4.6100e-003	0.0000	25.1080
Total	0.0170	0.1539	0.1793	2.9000e-004	0.0192	8.1000e-003	0.0273	0.0101	7.7400e-003	0.0178	0.0000	24.9926	24.9926	4.6100e-003	0.0000	25.1080

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1900e-003	0.3069	0.0699	9.5000e-004	0.0209	8.9000e-004	0.0218	5.7500e-003	8.5000e-004	6.6000e-003	0.0000	92.3472	92.3472	4.6700e-003	0.0000	92.4638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.6000e-004	4.9500e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.5444	1.5444	3.0000e-005	0.0000	1.5452

Total	9.8800e-003	0.3074	0.0748	9.7000e-004	0.0228	9.0000e-004	0.0237	6.2500e-003	8.6000e-004	7.1200e-003	0.0000	93.8916	93.8916	4.7000e-003	0.0000	94.0090
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6300e-003	0.0000	8.6300e-003	4.5500e-003	0.0000	4.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1539	0.1793	2.9000e-004		8.1000e-003	8.1000e-003		7.7400e-003	7.7400e-003	0.0000	24.9926	24.9926	4.6100e-003	0.0000	25.1079
Total	0.0170	0.1539	0.1793	2.9000e-004	8.6300e-003	8.1000e-003	0.0167	4.5500e-003	7.7400e-003	0.0123	0.0000	24.9926	24.9926	4.6100e-003	0.0000	25.1079

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.1900e-003	0.3069	0.0699	9.5000e-004	0.0209	8.9000e-004	0.0218	5.7500e-003	8.5000e-004	6.6000e-003	0.0000	92.3472	92.3472	4.6700e-003	0.0000	92.4638
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.9000e-004	4.6000e-004	4.9500e-003	2.0000e-005	1.9000e-003	1.0000e-005	1.9100e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.5444	1.5444	3.0000e-005	0.0000	1.5452
Total	9.8800e-003	0.3074	0.0748	9.7000e-004	0.0228	9.0000e-004	0.0237	6.2500e-003	8.6000e-004	7.1200e-003	0.0000	93.8916	93.8916	4.7000e-003	0.0000	94.0090

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0659	0.6745	0.6867	1.0900e-003		0.0357	0.0357		0.0329	0.0329	0.0000	96.1418	96.1418	0.0311	0.0000	96.9191
Total	0.0659	0.6745	0.6867	1.0900e-003		0.0357	0.0357		0.0329	0.0329	0.0000	96.1418	96.1418	0.0311	0.0000	96.9191

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.4000e-003	2.1800e-003	3.0000e-005	6.9000e-004	3.0000e-005	7.2000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.9170	2.9170	1.4000e-004	0.0000	2.9206
Vendor	7.9300e-003	0.2294	0.0592	8.6000e-004	0.0241	6.7000e-004	0.0248	6.9600e-003	6.4000e-004	7.6000e-003	0.0000	82.7807	82.7807	2.7700e-003	0.0000	82.8500
Worker	0.0159	0.0106	0.1148	4.0000e-004	0.0440	2.8000e-004	0.0443	0.0117	2.6000e-004	0.0120	0.0000	35.8301	35.8301	7.5000e-004	0.0000	35.8488
Total	0.0242	0.2494	0.1761	1.2900e-003	0.0688	9.8000e-004	0.0698	0.0189	9.3000e-004	0.0198	0.0000	121.5278	121.5278	3.6600e-003	0.0000	121.6194

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.0659	0.6745	0.6867	1.0900e-003		0.0357	0.0357		0.0329	0.0329	0.0000	96.1417	96.1417	0.0311	0.0000	96.9190
Total	0.0659	0.6745	0.6867	1.0900e-003		0.0357	0.0357		0.0329	0.0329	0.0000	96.1417	96.1417	0.0311	0.0000	96.9190

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	9.4000e-003	2.1800e-003	3.0000e-005	6.9000e-004	3.0000e-005	7.2000e-004	1.9000e-004	3.0000e-005	2.2000e-004	0.0000	2.9170	2.9170	1.4000e-004	0.0000	2.9206
Vendor	7.9300e-003	0.2294	0.0592	8.6000e-004	0.0241	6.7000e-004	0.0248	6.9600e-003	6.4000e-004	7.6000e-003	0.0000	82.7807	82.7807	2.7700e-003	0.0000	82.8500
Worker	0.0159	0.0106	0.1148	4.0000e-004	0.0440	2.8000e-004	0.0443	0.0117	2.6000e-004	0.0120	0.0000	35.8301	35.8301	7.5000e-004	0.0000	35.8488
Total	0.0242	0.2494	0.1761	1.2900e-003	0.0688	9.8000e-004	0.0698	0.0189	9.3000e-004	0.0198	0.0000	121.5278	121.5278	3.6600e-003	0.0000	121.6194

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5300e-003	0.0257	0.0284	5.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.0083	4.0083	1.3000e-003	0.0000	4.0408
Total	2.5300e-003	0.0257	0.0284	5.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.0083	4.0083	1.3000e-003	0.0000	4.0408

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	2.6000e-004	8.0000e-005	0.0000	5.3000e-004	0.0000	5.3000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.1169	0.1169	1.0000e-005	0.0000	0.1171
Vendor	2.4000e-004	6.7500e-003	2.2100e-003	3.0000e-005	1.0000e-003	1.0000e-005	1.0200e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	3.3572	3.3572	1.0000e-004	0.0000	3.3598
Worker	6.2000e-004	4.0000e-004	4.4000e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4358	1.4358	3.0000e-005	0.0000	1.4364
Total	8.7000e-004	7.4100e-003	6.6900e-003	5.0000e-005	3.3600e-003	2.0000e-005	3.3900e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	4.9098	4.9098	1.4000e-004	0.0000	4.9133

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5300e-003	0.0257	0.0284	5.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.0083	4.0083	1.3000e-003	0.0000	4.0407
Total	2.5300e-003	0.0257	0.0284	5.0000e-005		1.2800e-003	1.2800e-003		1.1800e-003	1.1800e-003	0.0000	4.0083	4.0083	1.3000e-003	0.0000	4.0407

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
	Hauling	1.0000e-005	2.6000e-004	8.0000e-005	0.0000	5.3000e-004	0.0000	5.3000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.1169	0.1169	1.0000e-005	0.0000
Vendor	2.4000e-004	6.7500e-003	2.2100e-003	3.0000e-005	1.0000e-003	1.0000e-005	1.0200e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	3.3572	3.3572	1.0000e-004	0.0000	3.3598
Worker	6.2000e-004	4.0000e-004	4.4000e-003	2.0000e-005	1.8300e-003	1.0000e-005	1.8400e-003	4.9000e-004	1.0000e-005	5.0000e-004	0.0000	1.4358	1.4358	3.0000e-005	0.0000	1.4364
Total	8.7000e-004	7.4100e-003	6.6900e-003	5.0000e-005	3.3600e-003	2.0000e-005	3.3900e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	4.9098	4.9098	1.4000e-004	0.0000	4.9133

3.6 Paving - 2022

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	3.2300e-003	0.0296	0.0352	6.0000e-005		1.4800e-003	1.4800e-003		1.3800e-003	1.3800e-003	0.0000	4.6984	4.6984	1.3700e-003	0.0000	4.7326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2300e-003	0.0296	0.0352	6.0000e-005		1.4800e-003	1.4800e-003		1.3800e-003	1.3800e-003	0.0000	4.6984	4.6984	1.3700e-003	0.0000	4.7326

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5792	0.5792	1.0000e-005	0.0000	0.5795

Total	2.6000e-004	1.7000e-004	1.8600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5792	0.5792	1.0000e-005	0.0000	0.5795
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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2300e-003	0.0296	0.0352	6.0000e-005		1.4800e-003	1.4800e-003		1.3800e-003	1.3800e-003	0.0000	4.6984	4.6984	1.3700e-003	0.0000	4.7326
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.2300e-003	0.0296	0.0352	6.0000e-005		1.4800e-003	1.4800e-003		1.3800e-003	1.3800e-003	0.0000	4.6984	4.6984	1.3700e-003	0.0000	4.7326

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5792	0.5792	1.0000e-005	0.0000	0.5795
Total	2.6000e-004	1.7000e-004	1.8600e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5792	0.5792	1.0000e-005	0.0000	0.5795

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5701					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.5712	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.2400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3861	0.3861	1.0000e-005	0.0000	0.3863
Total	1.7000e-004	1.1000e-004	1.2400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3861	0.3861	1.0000e-005	0.0000	0.3863

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Archit. Coating	0.5701					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	0.5712	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.1000e-004	1.2400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3861	0.3861	1.0000e-005	0.0000	0.3863
Total	1.7000e-004	1.1000e-004	1.2400e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3861	0.3861	1.0000e-005	0.0000	0.3863

355 First Street Condominiums Los Altos CA - Bay Area AQMD Air District, Annual

355 First Street Condominiums Los Altos CA
Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	51.02	1000sqft	0.00	51,020.00	0
Other Non-Asphalt Surfaces	1.70	1000sqft	0.04	1,700.00	0
Condo/Townhouse High Rise	50.00	Dwelling Unit	0.64	79,431.00	143

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2025
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	206	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Carbon intensity factor updated per CEC

Land Use - Includes off-site sidewalk improvements

Vehicle Trips - Updated to ITE 9th edition

Woodstoves - Municipal Code Chapter 12.64 prohibits wood-burning fireplaces, default switched to gas

Mobile Land Use Mitigation -

Energy Mitigation - Reflects compliance with 2019 Title 24 Building Energy Efficiency Standards

Water Mitigation - Required Compliance with State MWELO

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	7.50	16.00
tblFireplaces	NumberWood	8.50	0.00
tblLandUse	LandUseSquareFeet	50,000.00	79,431.00
tblLandUse	LotAcreage	1.17	0.00
tblLandUse	LotAcreage	0.78	0.64
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblVehicleTrips	WD_TR	4.18	5.18

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3820	6.0000e-003	0.3721	3.0000e-005		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	2.6048	2.6048	6.2000e-004	4.0000e-005	2.6313
Energy	1.8600e-003	0.0159	6.7600e-003	1.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	61.0700	61.0700	6.3600e-003	1.5800e-003	61.6998
Mobile	0.0485	0.2257	0.5429	2.1500e-003	0.2052	1.7600e-003	0.2069	0.0551	1.6400e-003	0.0567	0.0000	198.3107	198.3107	6.6700e-003	0.0000	198.4774
Waste						0.0000	0.0000		0.0000	0.0000	4.6688	0.0000	4.6688	0.2759	0.0000	11.5667
Water						0.0000	0.0000		0.0000	0.0000	1.0335	2.2778	3.3113	0.1065	2.5700e-003	6.7398
Total	0.4324	0.2476	0.9218	2.2800e-003	0.2052	5.2400e-003	0.2104	0.0551	5.1200e-003	0.0602	5.7023	264.2633	269.9656	0.3960	4.1900e-003	281.1150

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.04	2.16	4.17	6.94	0.64	54.08	3.44	0.65	54.69	9.79	12.03	4.45	4.63	1.16	6.05	4.52

4.0 Operational Detail - Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Unmitigated	0.0485	0.2257	0.5429	2.1500e-003	0.2052	1.7600e-003	0.2069	0.0551	1.6400e-003	0.0567	0.0000	198.3107	198.3107	6.6700e-003	0.0000	198.4774

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT
	Weekday	Saturday	Sunday	
Condo/Townhouse High Rise	259.00	215.50	171.50	551,414
Enclosed Parking with Elevator	0.00	0.00	0.00	
Other Non-Asphalt Surfaces	0.00	0.00	0.00	
Total	259.00	215.50	171.50	551,414

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Enclosed Parking with Elevator	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719
Other Non-Asphalt Surfaces	0.581705	0.037849	0.193793	0.109044	0.014574	0.005304	0.018664	0.026966	0.002656	0.002072	0.005755	0.000900	0.000719

5.0 Energy Detail

Historical Energy Use: N

Exceed Title 24

5.2 Energy by Land Use - NaturalGas

Unmitigated

Consumer Products	0.3136					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	2.0000e-004	1.7200e-003	7.3000e-004	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9974	1.9974	4.0000e-005	4.0000e-005	2.0093
Landscaping	0.0112	4.2800e-003	0.3714	2.0000e-005		2.0600e-003	2.0600e-003		2.0600e-003	2.0600e-003	0.0000	0.6074	0.6074	5.8000e-004	0.0000	0.6220
Total	0.3820	6.0000e-003	0.3721	3.0000e-005		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	2.6048	2.6048	6.2000e-004	4.0000e-005	2.6313

7.0 Water Detail

Use Water Efficient Irrigation System

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	3.2577 / 1.92849	3.3113	0.1065	2.5700e-003	6.7398
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.3113	0.1065	2.5700e-003	6.7398

8.0 Waste Detail

Category/Year

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	23	4.6688	0.2759	0.0000	11.5667

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		4.6688	0.2759	0.0000	11.5667