DOCKETED	
Docket Number:	19-SPPE-01
Project Title:	Laurelwood Data Center (MECP I Santa Clara I, LLC)
TN #:	228913
Document Title:	Laurelwood Data Center (19-SPPE-01) Revised Construction Emission Estimates
Description:	LDC Revised Construction Emissions
Filer:	Sarah Madams
Organization:	Jacobs
Submitter Role:	Applicant Consultant
Submission Date:	7/8/2019 10:55:06 AM
Docketed Date:	7/8/2019

2485 Natomas Park Dr, Suite 600
Sacramento, California 95833
United States
T +1.916.286.0207
www.jacobs.com

Wenjun Qian, Ph.D., P.E.
Air Resources Engineer
California Energy Commission
1516 9th St., MS-46
Sacramento, CA 95814

July 8, 2019

Subject: Laurelwood Data Center (19-SPPE-01) Revised Construction Emission Estimates

Dear Ms. Qian,

The purpose of this submittal is to provide the requested revised construction emission estimates and health risk assessment results for the Laurelwood Data Center (LDC; 19-SPPE-01), consistent with the Project Description submitted on June 21, 2019 (Transaction Number 228823). These revised estimates account for the addition of a 3-month demolition phase prior to the construction phase. The revised construction emission estimates and modeling are, therefore, based upon a combined 17-month demolition and construction phase. This submittal includes discussion of the following:

- Revised construction emission estimates
- Revised air dispersion modeling and health risk assessment (HRA) methodology
- Revised summary of results and comparison to the Bay Area Air Quality Management District's (BAAQMD) California Environmental Quality Act (CEQA) significance thresholds

Revised Emission Estimates

Short-term demolition and construction emissions were evaluated for the following criteria pollutants: carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NO_X), sulfur dioxide (SO_2), particulate matter with aerodynamic diameter less than or equal to 10 microns (PM_{10}), and particulate matter with aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$). The inclusion of the 3-month demolition phase resulted in emissions from additional pieces of diesel-fueled equipment, worker commutes, hauling of waste materials, and fugitive dust from the generation and hauling of demolished concrete and asphalt. Emission sources associated with the 14-month construction phase were described in Section 3.3 of the Small Power Plant Exemption (SPPE) Application and remain unchanged.

The only toxic air contaminant (TAC) potentially resulting from demolition and construction activities was diesel particulate matter (DPM), which was assumed equal to onsite exhaust PM_{10} emissions. Detailed demolition and construction emission calculations are presented in the revised Appendix 3.3-A, which is included with this submittal. Demolition and construction emissions are a result of diesel-fueled equipment, material movement, demolition waste generation and loading, paving activities (associated with the already analyzed construction, not demolition), and on- and offsite vehicle trips, such as material haul trucks, worker commutes, and delivery vehicles. Consistent with Section 3.3 of the SPPE Application, emissions from the combined 17-month demolition and construction period were estimated using diesel-fueled equipment emission factors, horsepower, and load factors from the *California*

Emissions Estimator Model (CalEEMod) User's Guide (BREEZE, 2017)[1]; paving emission factors from the *CalEEMod User's Guide* (BREEZE, 2017); and on- and offsite vehicle exhaust and idling emission factors from EMFAC2014. Fugitive dust emission factors for truck dumping/loading, grading, demolition waste generation, and demolition waste loading activities were derived using methodology from the *CalEEMod User's Guide* (BREEZE, 2017). Fugitive dust emission factors for vehicle travel on paved and unpaved roads were derived using methodology from *AP-42* (U.S. Environmental Protection Agency [EPA], 2011[2] and 2006[3], respectively). Estimated criteria pollutant demolition and construction emissions for the project are summarized in Table 1, which is a revised version of Table 3.3-3 of the SPPE Application, and conservatively assume that all demolition and construction activity could occur concurrently, overstating potential impacts by assuming simultaneous activities that can and will not occur simultaneously.

Table 1 Criteria Pollutant Emissions from Project Demolition and Construction

	VOCs	NO_x	PM_{10}[a]	$PM_{2.5}$[a]
Average Daily Emissions (lb/day)[b]	3.57	39.2	6.71	2.29
Maximum Emissions (tons per project)	0.70	7.66	1.31	0.45
BAAQMD Thresholds (lb/day)	54	54	82	54
Exceeds Threshold?	No	No	No	No

[a] These estimates conservatively include fugitive dust emissions, even though the BAAQMD's thresholds are specific to exhaust emissions only.

[b] The BAAQMD's thresholds are average daily thresholds. Accordingly, the results reported are the total project emissions averaged over the entire demolition and construction duration.

As shown in Table 1, demolition and construction of the project would not generate VOCs, NO_X, PM_{10}, or $PM_{2.5}$ emissions in excess of BAAQMD's significance thresholds. The BAAQMD's CEQA guidelines consider fugitive dust impacts to be less than significant through the application of best management practices (BMPs).

To assure fugitive dust impacts are less than significant, the Applicant will incorporate the BAAQMD's recommended BMPs as project design features. Consistent with Section 3.3 of the SPPE Application, these project design features will include:

- All exposed surfaces (for example, parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling [Title 13, Section 2485, California Code of Regulations]). Clear signage shall be provided for construction workers at all access points.

[1] BREEZE Software, A Division of Trinity Consultants (BREEZE). 2017. *California Emissions Estimator Model User's Guide*. Version 2016.3.2. November.

[2] U.S. Environmental Protection Agency (EPA). 2011. *AP-42, Fifth Edition, Volume 1*. Chapter 13: Miscellaneous Sources, Section 13.2.1: Paved Roads. January.

[3] U.S. Environmental Protection Agency (EPA). 2006. *AP-42, Fifth Edition, Volume 1*. Chapter 13: Miscellaneous Sources, Section 13.2.2: Unpaved Roads. November.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Revised Air Dispersion Modeling and Health Risk Assessment Methodology

A revised screening HRA was conducted to evaluate the potential health risks due to the demolition and construction of the LDC. DPM was the only TAC modeled, and was assumed to be equal to exhaust PM_{10} emissions from onsite equipment and vehicles. As discussed below, conducting the screening HRA required the estimation of DPM emissions from the 17-month demolition and construction phase, air dispersion modeling to determine ground-level concentrations of DPM, and calculation of cancer and chronic health risks resulting from exposure to those ground-level concentrations.

Modeled Emissions

Because DPM is the only TAC expected to be emitted during demolition and construction, it was the only TAC required in the screening HRA. DPM emissions result from exhaust of onsite diesel-fueled equipment and vehicles. DPM emissions for the demolition and construction activities were derived from the demolition and construction emission estimates presented in revised Appendix 3.3-A, as follows:

- DPM was assumed to be best represented by PM_{10} emitted as a result of fuel combustion. Therefore, fugitive dust emissions were excluded, as they are not expected to include DPM.
- Offsite contributions resulting from material haul truck trips, worker commute trips, and vendor delivery trips were excluded, as they are not expected to significantly contribute to localized impacts of DPM.
- Onsite contributions from gasoline-fueled light-duty trucks were conservatively included, although they will not emit DPM.
- PM_{10} emissions resulting from diesel-fueled equipment exhaust were estimated using emission factors representative of the statewide fleet mix, as available in CalEEMod (that is, specific engine tiers were not assumed, which is a conservative assumption).

For modeling, these emissions were averaged over the combined demolition and construction period (17 months) and spatially distributed within the demolition and construction area. These emission rates are presented in Table 2, which is a revised version of Table 3.3-14 of the SPPE Application. Detailed calculations are presented in revised Appendix DR32-C, which is included with this submittal.

Table 2 Modeled DPM Emission Rates for Project Demolition and Construction

Emissions Category	DPM Exhaust Emissions		
	Total (lb/project)	Annualized (lb/year)[a]	Modeled Rate (g/s)
Total Demolition and Construction Emissions	649	458	0.0066
Demolition and Construction Emissions per Modeled Source[b]	11.2	7.90	0.0001

[a] Annualized emissions were calculated by averaging the total project emissions over a 17-month demolition and construction period.

[b] A total of 58 sources were modeled.

Notes:

g/s = gram(s) per second

lb/project = pound(s) per project

lb/year = pound(s) per year

Air Dispersion Modeling Methodology

The air dispersion of emitted DPM was modeled using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) (Version 18081). The model was used with regulatory default options, as recommended in EPA's *Guideline on Air Quality Models* (EPA, 2017)[4]. The following supporting pre-processing programs for AERMOD were also used:

- BPIP-PRIME (Version 04274)
- AERMET (Version 18081)
- AERMAP (Version 11103)

AERMOD is a steady-state plume model that simulates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. This model is recommended for short-range (less than 50 kilometers [km]) dispersion from the source. The model incorporates the Plume Rise Model Enhancement (PRIME) algorithm for modeling building downwash. AERMOD is designed to accept input data prepared by two specific pre-processor programs, AERMET and AERMAP. AERMOD was run with the following options:

- Regulatory default options
- Direction-specific building downwash
- Hour of day factor
- Urban population
- Actual receptor elevations and hill height scales obtained from AERMAP

The modeled output (maximum ground-level concentrations), along with equations from the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (Office of Environmental Health Hazard Assessment [OEHHA], 2015)[5], were used to estimate the cancer and chronic (non-cancer) health risks for residential and worker exposure to DPM emissions. Acute (non-cancer) health risks were not estimated because there is no acute inhalation reference exposure level (REL) for DPM, thus indicating that DPM is not known to result in acute health hazards (OEHHA, 2015; OEHHA and California Air Resources Board [CARB], 2018[6]). Details regarding the model options,

[4] U.S. Environmental Protection Agency (EPA). 2017. *Guideline on Air Quality Models*. 40 Code of Federal Regulations (CFR) Part 51, Appendix W. January.

[5] Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Guidance Manual for Preparation of Health Risk Assessments*. February. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[6] Office of Environmental Health Hazard Assessment and California Air Resources Board (OEHHA & CARB). 2018. *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values*. May.

source parameters, and health risk estimates, which are specific to the screening HRA, are described below.

Meteorological Data. The analysis was performed with 5 years of data provided by the BAAQMD. The data were collected at the San Jose International Airport surface station (WBAN: 23293) for calendar years 2013 through 2017. The San Jose International Airport surface station is located approximately 4.5 km southeast from the site and best represents the topography at the site. The concurrent daily upper air sounding data from the Oakland International Airport station (WBAN: 23230) were also included. The data were preprocessed with AERMET (Version 18081) by the BAAQMD for direct use in AERMOD.

Table 3, which is a revised version of Table 3.3-7 of the SPPE Application, presents a summary of the percent completeness of wind speed and wind direction data. A cumulative wind rose for data from 2013 to 2017 from the AERMET processed surface files for the San Jose International Airport is consistent with that presented in Appendix DR32-B, Figure 3 of Attachment DR-32 (Transaction Number 228854). The 5-year mean wind speed is 3.19 meters per second (m/s).

Table 3 Meteorological Data Completeness

Parameter	2013	2014	2015	2016	2017
Valid Wind Direction and Speed Observations	8,738	8,751	8,757	8,768	8,752
Possible Observations	8,760	8,760	8,760	8,784	8,760
Percent Complete (%)	99.75	99.90	99.97	99.82	99.91

Building Downwash. Building influences on stacks are calculated by incorporating the updated EPA Building Profile Input Program (BPIP) for use with the PRIME algorithm. Buildings and structures associated with the project were not included in the facility layout, as they would be built as a result of construction activities. However, five buildings surrounding the facility fence line were included in the model due to their height and proximity to the site. Appendix DR32-B, Figure 1 of Attachment DR-32 (Transaction Number 228854) shows these five buildings on the exterior of the property boundary.

Receptor Grid. The ambient air boundary was defined by the fence line surrounding the project site. The selection of receptors in AERMOD were as follows:

- 25-meter (m) spacing along the fence line
- 50-m spacing from the fence line to 500 m from the grid origin
- 100-m spacing from beyond 500 m to 1 km from the fence line
- 500-m spacing from beyond 1 km to 5 km from the fence line
- 1,000-m spacing from beyond 5 km to 10 km from the fence line

AERMAP (Version 11103) was used to process terrain elevation data to obtain the elevation for all receptors using National Elevation Dataset files prepared by the U.S. Geological Survey. AERMAP first determined the base elevation at each receptor. AERMAP created hill height scale by searching for the terrain height and location that has the greatest influence on dispersion for each individual source and receptor. Both the base elevation and hill height scale data were produced for each receptor by AERMAP as a file or files that were directly accessed by AERMOD. All receptor locations were expressed in the Universal Transverse Mercator North American Datum 1983, Zone 10 coordinate system. The modeled receptor grid is consistent with that presented in Appendix DR32-B, Figure 2 of Attachment DR-32 (Transaction Number 228854).

Sensitive Receptors. Sensitive receptors, such as infants, the aged, and people with specific illnesses or diseases, are the subpopulations which are more sensitive to the effects of toxic substance exposure. Examples of receptors include residences, schools and school yards, parks and playgrounds, daycare centers, nursing homes, and medical facilities. Residences could include houses, apartments, and senior living complexes. Medical facilities could include hospitals, convalescent homes, and health clinics.

Playgrounds could be play areas associated with parks or community centers (BAAQMD, 2017)[7]. The potential sensitive receptor locations evaluated in the screening HRA for LDC include (BAAQMD, 2012)[8]:

- Residential dwellings, including apartments, houses, condominiums
- Schools, colleges, and universities
- Daycares
- Hospitals
- Senior-care facilities

A sensitive receptor search was conducted within the 2-km zone of influence. It was determined that the sensitive receptors include primarily schools, elementary through college-level, and a hospital. The area directly north and east of the project site consists of various businesses. The nearest residential neighborhoods are located approximately 1 mile north and east of the site. The sensitive receptors were used as discrete receptor locations in the model for purposes of conducting the HRA.

Urban Factor. The site is located in the Santa Clara region of California, and is considered an urban area since the land use predominantly surrounding the project is classified as urban. Therefore, the model used a single urban area in AERMOD. The population estimate of Santa Clara County in 2017 was 1,938,153 people (U.S. Census Bureau Reporter, 2017). This population was included in the model to help define the differential heating effect that develops at night due to the urban population.

Source Parameters. The demolition and construction exhaust emissions were modeled as a set of point sources spaced approximately 25 m apart over the demolition and construction area with a horizontal stack release. The horizontal release type is an AERMOD beta option (that is, nonregulatory default option), which negates mechanical plume rise. This conservative approach was used because it is unknown whether the construction equipment will have vertically oriented exhaust stacks. Stack release parameters consisted of a stack release temperature of 533 degrees Kelvin (500 degrees Fahrenheit), a stack diameter of 0.127 m (5 inches), and a release height of 4.6 m (15 feet) based on data for typical diesel-fueled equipment. Modeling was also restricted to the hours of 8 a.m. to 6 p.m. using an Hour of Day (HROFDY) factor modeling refinement, which was assumed to coincide with the expected daily demolition and construction schedule. A detailed summary of the modeling inputs is presented in revised Appendix DR32-C.

Health Risk Estimates

As stated above, the modeled output from AERMOD (maximum ground-level concentrations), along with equations from the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA, 2015), were used to estimate the cancer and chronic (non-cancer) health risks for residential and worker exposure to DPM emissions.[9] The screening HRA estimated the 2-year rolling cancer risks during a 30-year exposure duration (starting with exposure during the third trimester) for residential exposure and a 25-year exposure duration (from age 16 to 40) for worker exposure, aligned with the expected demolition and construction duration of 17 months, at the Maximally Exposed Individual Resident (MEIR), Maximally Exposed Individual Worker (MEIW), and Maximally Exposed Sensitive Receptor (MESR). The excess cancer risks were estimated using the following:

- Equations 3.4.1.1 and 8.2.4A from the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA, 2015) for residential exposure
- Equations 5.4.1.2A, 5.4.1.2B, and 8.2.4B from the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA, 2015) for worker exposure

[7] Bay Area Air Quality Management District (BAAQMD). 2017. *California Environmental Quality Act Air Quality Guidelines*. May. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[8] Bay Area Air Quality Management District (BAAQMD). 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en.

[9] Additional context on cancer risk and chronic toxicity can be found in Section 3.3 of the SPPE Application.

- The maximum annual ground-level concentrations used to estimate risk were determined through dispersion modeling with AERMOD, as described above
- The construction emission estimates modeled are presented in Table 2

Chronic risks were also estimated for the MEIR, MEIW, and MESR, based on the same emission rates and ground-level concentrations described above. To calculate chronic risk, as characterized by a health index (HI), the maximum annual ground-level concentration was divided by the DPM REL of 5 micrograms per cubic meter (µg/m^3) (OEHHA and CARB, 2018).

Results of the screening HRA, compared to BAAQMD's significance thresholds, are presented in the following section.

Revised Summary of Results

Based on the above discussion, potential impacts of the LDC demolition and construction activities can be evaluated based on a comparison to the BAAQMD's CEQA significance thresholds for criteria pollutants (mass basis) and TACs (health risk basis).

Table 4 shows that the revised emissions for the project's combined demolition and construction activities would not generate criteria pollutant (VOCs, NO_X, PM_{10}, or $PM_{2.5}$) emissions in excess of BAAQMD's mass based CEQA significance thresholds. Therefore, air dispersion modeling of demolition and construction activities is not required to demonstrate compliance with the federal and state ambient air quality standards.

Table 4 Demolition and Construction Emissions Compared to BAAQMD's CEQA Thresholds

	VOCs	NO_x	PM_{10}[a]	$PM_{2.5}$[a]
Average Daily Emissions (lb/day)[b]	3.57	39.2	6.71	2.29
BAAQMD Thresholds (lb/day)	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

[a] These estimates conservatively include fugitive dust emissions, even though the BAAQMD's thresholds are specific to exhaust emissions only.

[b] The BAAQMD's thresholds are average daily thresholds. Accordingly, the results reported are the total project emissions averaged over the entire demolition and construction duration.

Similarly, the results of the screening HRA for demolition and construction activities are presented in Table 5, which is a revised version of Table 3.3-15 of the SPPE Application, and show that the excess cancer risks and chronic HIs at the MEIR, MEIW, and MESR are less than the BAAQMD's significance thresholds of 10 in 1 million and 1, respectively. Therefore, predicted impacts associated with the finite demolition and construction activities are less than significant. It should be noted that these less-than-significant impacts are conservative given the conservative assumptions used in developing the DPM emission estimates and the DPM cancer potency safety factor inherent in OEHHA's calculations. Detailed calculations are provided in revised Appendix DR32-C.

Table 5 Demolition and Construction Health Risks at the Maximally Exposed Individual Receptors

Receptor Type	MEIR	MEIW	MESR	BAAQMD Thresholds	Exceeds Threshold?
Cancer Risk Impact (in 1 million)	0.49	1.21	1.15	10	**No**
Chronic Non-cancer HI	0.0003	0.0491	0.0008	1	**No**

Please contact me (916-286-0207 | Jerry.Salamy@jacobs.com) or Matt Muell (303-961-7965 | matt.muell@edgecore.com) if you have any questions about the information contained in this submittal.

Regards,

Jerry Salamy

Jacobs, Principal Project Manager

Copies to: Matt Muell/EdgeCore
Wylie Nelson/EdgeCore
Jeff Harris/ESHD

Revised Appendix 3.3-A

Appendix 3.3A, Table 1
Demolition and Construction Emissions Summary and Threshold Comparison
EdgeCore LDC
Revised July 2019

LDC Demolition & Construction Emissions

Demolition & Construction	Criteria Pollutant Emissions					
	CO	VOC	NO_X	SO_X	PM_{10} [d]	$PM_{2.5}$ [d]
Average Daily Emissions (lb/day) [e]	24.6	3.57	39.2	0.07	6.71	2.29
Maximum Project Emissions (tons)	4.81	0.70	7.66	0.01	1.31	0.45
BAAQMD Thresholds of Significance (lb/day) [a]	--	54	54	--	82	54
Exceeds Threshold (Y/N)?	N	N	N	N	N	N

Demolition & Construction	GHG Emissions			
	CO_2	N_2O	CH_4	CO_2e [b]
Average Daily Emissions (metric tons/day) [e]	2.65	4.50E-05	1.10E-04	2.67
Maximum Project Emissions (metric tons)	1,037	1.76E-02	4.31E-02	1,043
BAAQMD Thresholds of Significance (metric tons/year) [b, c]	--	--	--	10,000
Exceeds Threshold (Y/N)?	N	N	N	N

Notes:

[a] BAAQMD Thresholds of Significance taken from Table 2-1 of the *2017 CEQA Air Quality Guidelines* (BAAQMD, 2017).

[b] The following global warming potentials were used to estimate CO_2 equivalent emissions, per 40 CFR Part 98, Table A-1:

CH_4 = 25

N_2O = 298

[c] BAAQMD does not have a GHG significance threshold for construction. Instead, the operation threshold was used.

[d] These estimates conservatively include fugitive dust emissions, even though the significance threshold is specific to exhaust emissions only.

[e] Although peak daily emissions may be higher than what is reported here, the BAAQMD's significance thresholds are average daily thresholds. Accordingly, the results reported here are the total project emissions averaged over the entire construction duration.

Appendix 3.3A, Table 2
Demolition and Construction Emissions Summary by Source Category
EdgeCore LDC
Revised July 2019

CO Emissions

Emission Source	CO Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	547.51	547.51	547.51	887.83	1,008.73	839.00	640.42	521.66	507.73	462.83	396.63	407.72	407.72	183.57	183.57	149.24	149.24
Total (lb/day)	23.80	23.80	23.80	38.60	43.86	36.48	27.84	22.68	22.08	20.12	17.24	17.73	17.73	7.98	7.98	6.49	6.49
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	0.89	0.89	0.89	3.82	1.59	1.15	0.70	0.70	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Total (lb/day)	0.04	0.04	0.04	0.17	0.07	0.05	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Offsite Demolition & Construction Vehicle																	
Total (lb/month)	17.36	17.36	17.36	22.28	59.78	50.98	49.53	63.74	51.00	65.92	129.32	133.07	140.98	142.62	132.23	105.03	23.51
Total (lb/day)	0.75	0.75	0.75	0.97	2.60	2.22	2.15	2.77	2.22	2.87	5.62	5.79	6.13	6.20	5.75	4.57	1.02
Total Project CO Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**565.76**	**565.76**	**565.76**	**913.93**	**1,070.10**	**891.12**	**690.66**	**586.10**	**558.98**	**529.01**	**526.20**	**541.05**	**548.95**	**326.45**	**316.05**	**254.52**	**173.00**
Maximum Daily Emissions (lb/day)	**24.60**	**24.60**	**24.60**	**39.74**	**46.53**	**38.74**	**30.03**	**25.48**	**24.30**	**23.00**	**22.88**	**23.52**	**23.87**	**14.19**	**13.74**	**11.07**	**7.52**
Maximum Project Emissions (tons)	**4.81**																
Average Daily Emissions (lb/day) [a]	**24.61**																

VOC Emissions

Emission Source	VOC Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	67.89	67.89	67.89	138.53	168.29	141.39	111.89	83.39	76.54	69.46	62.76	70.75	70.75	29.56	29.56	24.97	24.97
Total (lb/day)	2.95	2.95	2.95	6.02	7.32	6.15	4.86	3.63	3.33	3.02	2.73	3.08	3.08	1.29	1.29	1.09	1.09
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	0.24	0.24	0.24	0.96	0.37	0.25	0.13	0.13	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total (lb/day)	0.01	0.01	0.01	0.04	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Paving																	
Total (lb/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	4.28	4.28	4.28	4.28	4.28
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.19
Offsite Demolition & Construction Vehicle																	
Total (lb/month)	2.75	2.75	2.75	1.89	6.03	5.53	4.08	3.86	2.43	2.80	4.55	5.21	5.06	4.77	4.12	2.62	0.62
Total (lb/day)	0.12	0.12	0.12	0.08	0.26	0.24	0.18	0.17	0.11	0.12	0.20	0.23	0.22	0.21	0.18	0.11	0.03
Total Project VOC Emissions (Demolition & Construction Equipment, Paving, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**70.87**	**70.87**	**70.87**	**141.39**	**174.69**	**147.18**	**116.11**	**87.38**	**78.98**	**72.28**	**67.33**	**80.25**	**80.11**	**38.63**	**37.97**	**31.88**	**29.88**
Maximum Daily Emissions (lb/day)	**3.08**	**3.08**	**3.08**	**6.15**	**7.60**	**6.40**	**5.05**	**3.80**	**3.43**	**3.14**	**2.93**	**3.49**	**3.48**	**1.68**	**1.65**	**1.39**	**1.30**
Maximum Project Emissions (tons)	**0.70**																
Average Daily Emissions (lb/day) [a]	**3.57**																

Appendix 3.3A, Table 2
Demolition and Construction Emissions Summary by Source Category
EdgeCore LDC
Revised July 2019

SO_x Emissions

Emission Source	SO_x Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	1.06	1.06	1.06	2.15	2.48	2.02	1.50	1.15	1.01	0.92	0.83	0.92	0.92	0.47	0.47	0.42	0.42
Total (lb/day)	0.05	0.05	0.05	0.09	0.11	0.09	0.07	0.05	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	0.01	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	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 Demolition & Construction Vehicle																	
Total (lb/month)	0.34	0.34	0.34	0.24	0.76	0.69	0.52	0.50	0.32	0.38	0.64	0.72	0.71	0.68	0.59	0.40	0.09
Total (lb/day)	0.01	0.01	0.01	0.01	0.03	0.03	0.02	0.02	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.00
Total Project SO_x Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**1.41**	**1.41**	**1.41**	**2.42**	**3.25**	**2.72**	**2.03**	**1.65**	**1.34**	**1.30**	**1.47**	**1.64**	**1.63**	**1.15**	**1.06**	**0.82**	**0.52**
Maximum Daily Emissions (lb/day)	**0.06**	**0.06**	**0.06**	**0.11**	**0.14**	**0.12**	**0.09**	**0.07**	**0.06**	**0.06**	**0.06**	**0.07**	**0.07**	**0.05**	**0.05**	**0.04**	**0.02**
Maximum Project Emissions (tons)	**0.01**																
Average Daily Emissions (lb/day) [a]	**0.07**																

NO_x Emissions

Emission Source	NO_x Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	642.43	642.43	642.43	1,528.76	1,871.37	1,600.25	1,246.66	884.80	787.11	702.43	635.23	743.50	743.50	288.82	288.82	247.76	247.76
Total (lb/day)	27.93	27.93	27.93	66.47	81.36	69.58	54.20	38.47	34.22	30.54	27.62	32.33	32.33	12.56	12.56	10.77	10.77
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	4.33	4.33	4.33	17.35	6.52	4.35	2.19	2.19	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total (lb/day)	0.19	0.19	0.19	0.75	0.28	0.19	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Demolition & Construction Vehicle																	
Total (lb/month)	88.96	88.96	88.96	55.62	183.29	169.58	117.65	101.48	56.80	62.92	90.30	111.74	101.94	91.17	73.06	35.06	9.11
Total (lb/day)	3.87	3.87	3.87	2.42	7.97	7.37	5.12	4.41	2.47	2.74	3.93	4.86	4.43	3.96	3.18	1.52	0.40
Total Project NO_x Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**735.72**	**735.72**	**735.72**	**1,601.73**	**2,061.19**	**1,774.19**	**1,366.50**	**988.47**	**843.94**	**765.37**	**725.55**	**855.27**	**845.47**	**380.02**	**361.91**	**282.84**	**256.89**
Maximum Daily Emissions (lb/day)	**31.99**	**31.99**	**31.99**	**69.64**	**89.62**	**77.14**	**59.41**	**42.98**	**36.69**	**33.28**	**31.55**	**37.19**	**36.76**	**16.52**	**15.74**	**12.30**	**11.17**
Maximum Project Emissions (tons)	**7.66**																
Average Daily Emissions (lb/day) [a]	**39.17**																

Appendix 3.3A, Table 2
Demolition and Construction Emissions Summary by Source Category
EdgeCore LDC
Revised July 2019

PM_{10} Emissions

Emission Source	PM_{10} Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	31.58	31.58	31.58	65.28	81.24	69.49	57.14	43.74	42.25	38.32	33.82	36.92	36.92	13.87	13.87	10.69	10.69
Total (lb/day)	1.37	1.37	1.37	2.84	3.53	3.02	2.48	1.90	1.84	1.67	1.47	1.61	1.61	0.60	0.60	0.46	0.46
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	0.03	0.03	0.03	0.14	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (lb/day)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	90.29	90.29	90.29	364.77	162.61	122.18	81.75	81.75	41.26	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43
Total (lb/day)	3.93	3.93	3.93	15.86	7.07	5.31	3.55	3.55	1.79	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Offsite Demolition & Construction Vehicle																	
Total (lb/month)	10.84	10.84	10.84	10.94	31.09	27.24	24.18	28.56	21.70	27.36	51.91	54.39	56.80	56.80	52.12	40.21	9.07
Total (lb/day)	0.47	0.47	0.47	0.48	1.35	1.18	1.05	1.24	0.94	1.19	2.26	2.36	2.47	2.47	2.27	1.75	0.39
Total Project PM_{10} Emissions (Demolition & Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**132.74**	**132.74**	**132.74**	**441.12**	**275.00**	**218.95**	**163.10**	**154.08**	**105.21**	**106.11**	**126.17**	**131.75**	**134.15**	**111.10**	**106.42**	**91.34**	**60.19**
Maximum Daily Emissions (lb/day)	**5.77**	**5.77**	**5.77**	**19.18**	**11.96**	**9.52**	**7.09**	**6.70**	**4.57**	**4.61**	**5.49**	**5.73**	**5.83**	**4.83**	**4.63**	**3.97**	**2.62**
Maximum Project Emissions (tons)	**1.31**																
Average Daily Emissions (lb/day) [a]	**6.71**																

$PM_{2.5}$ Emissions

Emission Source	$PM_{2.5}$ Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (lb/month)	29.69	29.69	29.69	60.03	74.70	63.91	52.55	40.23	38.85	35.20	31.07	33.90	33.90	12.74	12.74	9.82	9.82
Total (lb/day)	1.29	1.29	1.29	2.61	3.25	2.78	2.28	1.75	1.69	1.53	1.35	1.47	1.47	0.55	0.55	0.43	0.43
Onsite Demolition & Construction Vehicle																	
Total (lb/month)	0.02	0.02	0.02	0.08	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	9.51	9.51	9.51	36.49	16.27	12.23	8.19	8.19	4.13	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04
Total (lb/day)	0.41	0.41	0.41	1.59	0.71	0.53	0.36	0.36	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Offsite Demolition & Construction Vehicle																	
Total (lb/month)	3.32	3.32	3.32	3.21	9.22	8.14	7.11	8.23	6.19	7.72	14.50	15.28	15.89	15.83	14.49	11.08	2.50
Total (lb/day)	0.14	0.14	0.14	0.14	0.40	0.35	0.31	0.36	0.27	0.34	0.63	0.66	0.69	0.69	0.63	0.48	0.11
Total Project $PM_{2.5}$ Emissions (Demolition & Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**42.55**	**42.55**	**42.55**	**99.81**	**100.23**	**84.30**	**67.86**	**56.66**	**49.18**	**46.97**	**49.62**	**53.22**	**53.83**	**32.62**	**31.28**	**24.95**	**16.37**
Maximum Daily Emissions (lb/day)	**1.85**	**1.85**	**1.85**	**4.34**	**4.36**	**3.67**	**2.95**	**2.46**	**2.14**	**2.04**	**2.16**	**2.31**	**2.34**	**1.42**	**1.36**	**1.08**	**0.71**
Maximum Project Emissions (tons)	**0.45**																
Average Daily Emissions (lb/day) [a]	**2.29**																

Appendix 3.3A, Table 2
Demolition and Construction Emissions Summary by Source Category
EdgeCore LDC
Revised July 2019

CO_2 Emissions

Emission Source	CO_2 Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (metric tons/month)	28.13	28.13	28.13	69.18	81.99	69.08	51.86	39.34	34.39	29.15	25.91	27.85	27.85	13.00	13.00	11.37	11.37
Total (metric tons/day)	1.22	1.22	1.22	3.01	3.56	3.00	2.25	1.71	1.50	1.27	1.13	1.21	1.21	0.57	0.57	0.49	0.49
Onsite Demolition & Construction Vehicle																	
Total (metric tons/month)	0.33	0.33	0.33	1.33	0.51	0.35	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Total (metric tons/day)	0.01	0.01	0.01	0.06	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Demolition & Construction Vehicle																	
Total (metric tons/month)	17.81	17.81	17.81	12.85	40.31	36.59	27.44	26.81	17.24	20.60	34.81	39.02	38.52	36.97	32.29	21.74	5.08
Total (metric tons/day)	0.77	0.77	0.77	0.56	1.75	1.59	1.19	1.17	0.75	0.90	1.51	1.70	1.67	1.61	1.40	0.95	0.22
Total Project CO_2 Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**46.26**	**46.26**	**46.26**	**83.37**	**122.80**	**106.02**	**79.49**	**66.34**	**51.65**	**49.77**	**60.73**	**66.89**	**66.39**	**49.99**	**45.31**	**33.13**	**16.47**
Maximum Daily Emissions (metric tons/day)	**2.01**	**2.01**	**2.01**	**3.62**	**5.34**	**4.61**	**3.46**	**2.88**	**2.25**	**2.16**	**2.64**	**2.91**	**2.89**	**2.17**	**1.97**	**1.44**	**0.72**
Maximum Project Emissions (metric tons)	**1037.12**																
Average Daily Emissions (metric tons/day) [a]	**2.65**																

N_2O Emissions

Emission Source	N_2O Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (metric tons/month)	7.16E-04	7.16E-04	7.16E-04	1.76E-03	2.09E-03	1.76E-03	1.32E-03	1.00E-03	8.76E-04	7.42E-04	6.60E-04	7.09E-04	7.09E-04	3.31E-04	3.31E-04	2.89E-04	2.89E-04
Total (metric tons/day)	3.11E-05	3.11E-05	3.11E-05	7.66E-05	9.08E-05	7.65E-05	5.74E-05	4.36E-05	3.81E-05	3.23E-05	2.87E-05	3.08E-05	3.08E-05	1.44E-05	1.44E-05	1.26E-05	1.26E-05
Onsite Demolition & Construction Vehicle																	
Total (metric tons/month)	4.57E-06	4.57E-06	4.57E-06	1.86E-05	7.16E-06	4.88E-06	2.59E-06	2.59E-06	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07
Total (metric tons/day)	1.99E-07	1.99E-07	1.99E-07	8.09E-07	3.11E-07	2.12E-07	1.13E-07	1.13E-07	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08
Offsite Demolition & Construction Vehicle																	
Total (metric tons/month)	5.49E-05	5.49E-05	5.49E-05	5.39E-05	1.54E-04	1.35E-04	1.18E-04	1.38E-04	1.04E-04	1.31E-04	2.47E-04	2.60E-04	2.71E-04	2.71E-04	2.48E-04	1.90E-04	4.29E-05
Total (metric tons/day)	2.39E-06	2.39E-06	2.39E-06	2.34E-06	6.71E-06	5.89E-06	5.15E-06	6.01E-06	4.52E-06	5.70E-06	1.08E-05	1.13E-05	1.18E-05	1.18E-05	1.08E-05	8.27E-06	1.87E-06
Total Project N_2O Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**7.76E-04**	**7.76E-04**	**7.76E-04**	**1.83E-03**	**2.25E-03**	**1.90E-03**	**1.44E-03**	**1.14E-03**	**9.80E-04**	**8.74E-04**	**9.07E-04**	**9.70E-04**	**9.80E-04**	**6.02E-04**	**5.79E-04**	**4.80E-04**	**3.33E-04**
Maximum Daily Emissions (metric tons/day)	**3.37E-05**	**3.37E-05**	**3.37E-05**	**7.98E-05**	**9.78E-05**	**8.26E-05**	**6.27E-05**	**4.97E-05**	**4.26E-05**	**3.80E-05**	**3.95E-05**	**4.22E-05**	**4.26E-05**	**2.62E-05**	**2.52E-05**	**2.09E-05**	**1.45E-05**
Maximum Project Emissions (metric tons)	**1.76E-02**																
Average Daily Emissions (metric tons/day) [a]	**4.50E-05**																

Appendix 3.3A, Table 2
Demolition and Construction Emissions Summary by Source Category
EdgeCore LDC
Revised July 2019

CH_4 Emissions

Emission Source	CH_4 Emissions by Month																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Demolition & Construction Equipment																	
Total (metric tons/month)	1.60E-03	1.60E-03	1.60E-03	3.93E-03	4.66E-03	3.92E-03	2.95E-03	2.23E-03	1.95E-03	1.66E-03	1.47E-03	1.58E-03	1.58E-03	7.39E-04	7.39E-04	6.46E-04	6.46E-04
Total (metric tons/day)	6.95E-05	6.95E-05	6.95E-05	1.71E-04	2.02E-04	1.71E-04	1.28E-04	9.72E-05	8.49E-05	7.20E-05	6.40E-05	6.88E-05	6.88E-05	3.21E-05	3.21E-05	2.81E-05	2.81E-05
Onsite Demolition & Construction Vehicle																	
Total (metric tons/month)	9.69E-06	9.69E-06	9.69E-06	3.95E-05	1.53E-05	1.04E-05	5.59E-06	5.59E-06	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07
Total (metric tons/day)	4.21E-07	4.21E-07	4.21E-07	1.72E-06	6.64E-07	4.54E-07	2.43E-07	2.43E-07	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08
Offsite Demolition & Construction Vehicle																	
Total (metric tons/month)	9.95E-05	9.95E-05	9.95E-05	1.58E-04	4.07E-04	3.40E-04	3.55E-04	4.83E-04	3.99E-04	5.22E-04	1.04E-03	1.06E-03	1.13E-03	1.15E-03	1.07E-03	8.65E-04	1.93E-04
Total (metric tons/day)	4.33E-06	4.33E-06	4.33E-06	6.88E-06	1.77E-05	1.48E-05	1.54E-05	2.10E-05	1.74E-05	2.27E-05	4.52E-05	4.61E-05	4.92E-05	5.01E-05	4.67E-05	3.76E-05	8.39E-06
Total Project CH_4 Emissions (Demolition & Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**1.71E-03**	**1.71E-03**	**1.71E-03**	**4.13E-03**	**5.08E-03**	**4.27E-03**	**3.31E-03**	**2.72E-03**	**2.35E-03**	**2.18E-03**	**2.51E-03**	**2.64E-03**	**2.72E-03**	**1.89E-03**	**1.81E-03**	**1.51E-03**	**8.40E-04**
Maximum Daily Emissions (metric tons/day)	**7.42E-05**	**7.42E-05**	**7.42E-05**	**1.79E-04**	**2.21E-04**	**1.86E-04**	**1.44E-04**	**1.18E-04**	**1.02E-04**	**9.47E-05**	**1.09E-04**	**1.15E-04**	**1.18E-04**	**8.22E-05**	**7.88E-05**	**6.57E-05**	**3.65E-05**
Maximum Project Emissions (metric tons)	**4.31E-02**																
Average Daily Emissions (metric tons/day) [a]	**1.10E-04**																

Notes:
[a] The days per month are per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

Appendix 3.3A, Table 3
Number of Onsite Demolition and Construction Equipment and Vehicles
EdgeCore LDC
Revised July 2019

Number of Onsite Equipment for LDC Demolition & Construction

Onsite Equipment	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
Excavator	2	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0
Grader	0	0	0	2	2	2	2	1	1	0	0	0	0	0	0	0	0
Cranes [b]	0	0	0	0	1	1	1	0	0	1	1	2	2	0	0	0	0
Backhoe	0	0	0	1	2	2	1	1	1	1	0	0	0	0	0	0	0
Rubber Tired Loader [c]	0	0	0	2	3	3	1	1	0	0	0	0	0	0	0	0	0
Forklift	0	0	0	1	2	2	2	2	3	3	3	3	3	2	2	1	1
Roller [d]	0	0	0	2	2	1	1	1	1	1	1	0	0	0	0	0	0
Crushing/Proc. Equipment [e]	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Construction Equipment [f]	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other General Industrial Equipment [g]	0	0	0	1	1	1	2	2	2	1	1	1	1	0	0	0	0

Notes:

[a] Equipment counts taken from 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx' and Table 2-2 of SPPE Application, Section 2 (June 2019).

[b] Numbers presented for Cranes include the equipment counts for the 75 Ton Hydraulic Crane, 35 Ton Hydraulic Crane, Heavy Lift Lattice Boom Main Crane, Heavy Lift Lattice Boom Tail Crane, and Heavy Lift Gantry Crane.

[c] Numbers presented for Rubber Tired Loader include the equipment counts for the Front End Loader.

[d] Numbers presented for Roller include the equipment counts for the Compactor.

[e] Numbers presented for Crushing/Proc. Equipment include the equipment counts for the Concrete Crusher.

[f] Numbers presented for Other Construction Equipment include equipment counts for the Hydraulic Hammer.

[g] Numbers presented for Other General Industrial Equipment include the equipment counts for the Light Towers.

Number of Onsite Vehicles for LDC Demolition & Construction

Vehicle Type	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Onsite Dump Truck	2	2	2	8	3	2	1	1	0	0	0	0	0	0	0	0	0

Notes:

[a] Vehicle counts taken from 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx' and Table 2-2 of SPPE Application, Section 2 (June 2019).

Appendix 3.3A, Table 4
Onsite Demolition and Construction Equipment Emissions
EdgeCore LDC
Revised July 2019

Onsite Equipment CO Emissions from LDC Demolition & Construction

Onsite Equipment				CO Emissions (lb/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	114.91	114.91	114.91	229.81	229.81	114.91	114.91	114.91	114.91	114.91	114.91	114.91	114.91	114.91	114.91	114.91	114.91
Excavator	187.63	187.63	187.63	187.63	93.82	93.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	105.69	105.69	105.69	105.69	52.84	52.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	65.92	65.92	65.92	0.00	0.00	65.92	65.92	131.85	131.85	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	66.20	132.40	132.40	66.20	66.20	66.20	66.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	96.53	144.79	144.79	48.26	48.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	34.33	68.66	68.66	68.66	68.66	103.00	103.00	103.00	103.00	103.00	68.66	68.66	34.33	34.33
Roller	0.00	0.00	0.00	109.67	109.67	54.83	54.83	54.83	54.83	54.83	54.83	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	125.70	125.70	125.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	119.27	119.27	119.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	57.97	57.97	57.97	115.95	115.95	115.95	57.97	57.97	57.97	57.97	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**547.51**	**547.51**	**547.51**	**887.83**	**1,008.73**	**839.00**	**640.42**	**521.66**	**507.73**	**462.83**	**396.63**	**407.72**	**407.72**	**183.57**	**183.57**	**149.24**	**149.24**
Onsite Total (lb/day) [a]	**23.80**	**23.80**	**23.80**	**38.60**	**43.86**	**36.48**	**27.84**	**22.68**	**22.08**	**20.12**	**17.24**	**17.73**	**17.73**	**7.98**	**7.98**	**6.49**	**6.49**
Onsite Project Total (tons)	**4.19**																

Onsite Equipment VOC Emissions from LDC Demolition & Construction

Onsite Equipment				VOC Emissions (lb/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	20.37	20.37	20.37	40.74	40.74	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37
Excavator	14.98	14.98	14.98	14.98	7.49	7.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	27.99	27.99	27.99	27.99	14.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	14.50	14.50	14.50	0.00	0.00	14.50	14.50	29.01	29.01	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	6.70	13.39	13.39	6.70	6.70	6.70	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	22.90	34.35	34.35	11.45	11.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	4.59	9.19	9.19	9.19	9.19	13.78	13.78	13.78	13.78	13.78	9.19	9.19	4.59	4.59
Roller	0.00	0.00	0.00	13.04	13.04	6.52	6.52	6.52	6.52	6.52	6.52	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	17.45	17.45	17.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	15.09	15.09	15.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	7.59	7.59	7.59	15.17	15.17	15.17	7.59	7.59	7.59	7.59	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**67.89**	**67.89**	**67.89**	**138.53**	**168.29**	**141.39**	**111.89**	**83.39**	**76.54**	**69.46**	**62.76**	**70.75**	**70.75**	**29.56**	**29.56**	**24.97**	**24.97**
Onsite Total (lb/day) [a]	**2.95**	**2.95**	**2.95**	**6.02**	**7.32**	**6.15**	**4.86**	**3.63**	**3.33**	**3.02**	**2.73**	**3.08**	**3.08**	**1.29**	**1.29**	**1.09**	**1.09**
Onsite Project Total (tons)	**0.65**																

Appendix 3.3A, Table 4
Onsite Demolition and Construction Equipment Emissions
EdgeCore LDC
Revised July 2019

Onsite Equipment NO_X Emissions from LDC Demolition & Construction

Onsite Equipment				NO_X Emissions (lb/month)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	206.70	206.70	206.70	413.39	413.39	206.70	206.70	206.70	206.70	206.70	206.70	206.70	206.70	206.70	206.70	206.70	206.70
Excavator	154.21	154.21	154.21	154.21	77.10	77.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	378.32	378.32	378.32	378.32	189.16	189.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	172.70	172.70	172.70	0.00	0.00	172.70	172.70	345.40	345.40	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	67.20	134.40	134.40	67.20	67.20	67.20	67.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	277.51	416.27	416.27	138.76	138.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	41.06	82.13	82.13	82.13	82.13	123.19	123.19	123.19	123.19	123.19	82.13	82.13	41.06	41.06
Roller	0.00	0.00	0.00	128.85	128.85	64.42	64.42	64.42	64.42	64.42	64.42	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	119.14	119.14	119.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	162.38	162.38	162.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	68.22	68.22	68.22	136.44	136.44	136.44	68.22	68.22	68.22	68.22	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**642.43**	**642.43**	**642.43**	**1,528.76**	**1,871.37**	**1,600.25**	**1,246.66**	**884.80**	**787.11**	**702.43**	**635.23**	**743.50**	**743.50**	**288.82**	**288.82**	**247.76**	**247.76**
Onsite Total (lb/day) [a]	**27.93**	**27.93**	**27.93**	**66.47**	**81.36**	**69.58**	**54.20**	**38.47**	**34.22**	**30.54**	**27.62**	**32.33**	**32.33**	**12.56**	**12.56**	**10.77**	**10.77**
Onsite Project Total (tons)	**6.87**																

Onsite Equipment SO_X Emissions from LDC Demolition & Construction

Onsite Equipment				SO_X Emissions (lb/month)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	0.38	0.38	0.38	0.76	0.76	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Excavator	0.30	0.30	0.30	0.30	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.38	0.38	0.38	0.38	0.19	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	0.17	0.17	0.17	0.00	0.00	0.17	0.17	0.33	0.33	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.09	0.18	0.18	0.09	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	0.36	0.53	0.53	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	0.04	0.09	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.13	0.09	0.09	0.04	0.04
Roller	0.00	0.00	0.00	0.15	0.15	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	0.07	0.07	0.07	0.15	0.15	0.15	0.07	0.07	0.07	0.07	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**1.06**	**1.06**	**1.06**	**2.15**	**2.48**	**2.02**	**1.50**	**1.15**	**1.01**	**0.92**	**0.83**	**0.92**	**0.92**	**0.47**	**0.47**	**0.42**	**0.42**
Onsite Total (lb/day) [a]	**0.05**	**0.05**	**0.05**	**0.09**	**0.11**	**0.09**	**0.07**	**0.05**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.02**	**0.02**	**0.02**	**0.02**
Onsite Project Total (tons)	**0.01**																

Appendix 3.3A, Table 4
Onsite Demolition and Construction Equipment Emissions
EdgeCore LDC
Revised July 2019

Onsite Equipment PM_{10} Emissions from LDC Demolition & Construction

Onsite Equipment				PM_{10} Emissions (lb/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	7.51	7.51	7.51	15.03	15.03	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51	7.51
Excavator	7.43	7.43	7.43	7.43	3.71	3.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	12.13	12.13	12.13	12.13	6.06	6.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	7.34	7.34	7.34	0.00	0.00	7.34	7.34	14.67	14.67	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	4.49	8.99	8.99	4.49	4.49	4.49	4.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	9.34	14.01	14.01	4.67	4.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	3.18	6.35	6.35	6.35	6.35	9.53	9.53	9.53	9.53	9.53	6.35	6.35	3.18	3.18
Roller	0.00	0.00	0.00	8.48	8.48	4.24	4.24	4.24	4.24	4.24	4.24	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	8.10	8.10	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	8.53	8.53	8.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	5.20	5.20	5.20	10.41	10.41	10.41	5.20	5.20	5.20	5.20	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**31.58**	**31.58**	**31.58**	**65.28**	**81.24**	**69.49**	**57.14**	**43.74**	**42.25**	**38.32**	**33.82**	**36.92**	**36.92**	**13.87**	**13.87**	**10.69**	**10.69**
Onsite Total (lb/day) [a]	**1.37**	**1.37**	**1.37**	**2.84**	**3.53**	**3.02**	**2.48**	**1.90**	**1.84**	**1.67**	**1.47**	**1.61**	**1.61**	**0.60**	**0.60**	**0.46**	**0.46**
Onsite Project Total (tons)	**0.32**																

Onsite Equipment $PM_{2.5}$ Emissions from LDC Demolition & Construction

Onsite Equipment				$PM_{2.5}$ Emissions (lb/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	6.89	6.89	6.89	13.79	13.79	6.89	6.89	6.89	6.89	6.89	6.89	6.89	6.89	6.89	6.89	6.89	6.89
Excavator	6.82	6.82	6.82	6.82	3.41	3.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	11.20	11.20	11.20	11.20	5.60	5.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	6.73	6.73	6.73	0.00	0.00	6.73	6.73	13.45	13.45	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	4.13	8.26	8.26	4.13	4.13	4.13	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	8.60	12.90	12.90	4.30	4.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	2.92	5.85	5.85	5.85	5.85	8.77	8.77	8.77	8.77	8.77	5.85	5.85	2.92	2.92
Roller	0.00	0.00	0.00	7.80	7.80	3.90	3.90	3.90	3.90	3.90	3.90	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	8.10	8.10	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	7.88	7.88	7.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	4.78	4.78	4.78	9.56	9.56	9.56	4.78	4.78	4.78	4.78	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**29.69**	**29.69**	**29.69**	**60.03**	**74.70**	**63.91**	**52.55**	**40.23**	**38.85**	**35.20**	**31.07**	**33.90**	**33.90**	**12.74**	**12.74**	**9.82**	**9.82**
Onsite Total (lb/day) [a]	**1.29**	**1.29**	**1.29**	**2.61**	**3.25**	**2.78**	**2.28**	**1.75**	**1.69**	**1.53**	**1.35**	**1.47**	**1.47**	**0.55**	**0.55**	**0.43**	**0.43**
Onsite Project Total (tons)	**0.30**																

Appendix 3.3A, Table 4
Onsite Demolition and Construction Equipment Emissions
EdgeCore LDC
Revised July 2019

Onsite Equipment CO_2 Emissions from LDC Demolition & Construction

Onsite Equipment				CO_2 Emissions (metric tons/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	9.74	9.74	9.74	19.47	19.47	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74	9.74
Excavator	7.56	7.56	7.56	7.56	3.78	3.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	14.79	14.79	14.79	14.79	7.39	7.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cranes	0.00	0.00	0.00	0.00	5.12	5.12	5.12	0.00	0.00	5.12	5.12	10.25	10.25	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	3.25	6.49	6.49	3.25	3.25	3.25	3.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.00	0.00	0.00	13.16	19.75	19.75	6.58	6.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.00	0.00	0.00	1.63	3.27	3.27	3.27	3.27	4.90	4.90	4.90	4.90	4.90	3.27	3.27	1.63	1.63
Roller	0.00	0.00	0.00	6.35	6.35	3.18	3.18	3.18	3.18	3.18	3.18	0.00	0.00	0.00	0.00	0.00	0.00
Crushing/Proc. Equipment	3.18	3.18	3.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Construction Equipment	7.66	7.66	7.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other General Industrial Equipment	0.00	0.00	0.00	2.97	2.97	2.97	5.94	5.94	5.94	2.97	2.97	2.97	2.97	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**28.13**	**28.13**	**28.13**	**69.18**	**81.99**	**69.08**	**51.86**	**39.34**	**34.39**	**29.15**	**25.91**	**27.85**	**27.85**	**13.00**	**13.00**	**11.37**	**11.37**
Onsite Total (metric tons/day) [a]	**1.22**	**1.22**	**1.22**	**3.01**	**3.56**	**3.00**	**2.25**	**1.71**	**1.50**	**1.27**	**1.13**	**1.21**	**1.21**	**0.57**	**0.57**	**0.49**	**0.49**
Onsite Project Total (metric tons)	**589.72**																

Onsite Equipment N_2O Emissions from LDC Demolition & Construction

Onsite Equipment				N_2O Emissions (metric tons/month)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	2.48E-04	2.48E-04	2.48E-04	4.96E-04	4.96E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04	2.48E-04
Excavator	1.93E-04	1.93E-04	1.93E-04	1.93E-04	9.63E-05	9.63E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	0.00E+00	0.00E+00	0.00E+00	3.77E-04	3.77E-04	3.77E-04	3.77E-04	1.88E-04	1.88E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cranes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.30E-04	1.30E-04	1.30E-04	0.00E+00	0.00E+00	1.30E-04	1.30E-04	2.61E-04	2.61E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	8.26E-05	1.65E-04	1.65E-04	8.26E-05	8.26E-05	8.26E-05	8.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	0.00E+00	0.00E+00	0.00E+00	3.35E-04	5.03E-04	5.03E-04	1.68E-04	1.68E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	0.00E+00	0.00E+00	0.00E+00	4.16E-05	8.32E-05	8.32E-05	8.32E-05	8.32E-05	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	8.32E-05	8.32E-05	4.16E-05	4.16E-05
Roller	0.00E+00	0.00E+00	0.00E+00	1.62E-04	1.62E-04	8.09E-05	8.09E-05	8.09E-05	8.09E-05	8.09E-05	8.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Crushing/Proc. Equipment	8.09E-05	8.09E-05	8.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other Construction Equipment	1.95E-04	1.95E-04	1.95E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	7.57E-05	7.57E-05	7.57E-05	1.51E-04	1.51E-04	1.51E-04	7.57E-05	7.57E-05	7.57E-05	7.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**7.16E-04**	**7.16E-04**	**7.16E-04**	**1.76E-03**	**2.09E-03**	**1.76E-03**	**1.32E-03**	**1.00E-03**	**8.76E-04**	**7.42E-04**	**6.60E-04**	**7.09E-04**	**7.09E-04**	**3.31E-04**	**3.31E-04**	**2.89E-04**	**2.89E-04**
Onsite Total (metric tons/day) [a]	**3.11E-05**	**3.11E-05**	**3.11E-05**	**7.66E-05**	**9.08E-05**	**7.65E-05**	**5.74E-05**	**4.36E-05**	**3.81E-05**	**3.23E-05**	**2.87E-05**	**3.08E-05**	**3.08E-05**	**1.44E-05**	**1.44E-05**	**1.26E-05**	**1.26E-05**
Onsite Project Total (metric tons)	**1.50E-02**																

Appendix 3.3A, Table 4
Onsite Demolition and Construction Equipment Emissions
EdgeCore LDC
Revised July 2019

Onsite Equipment CH_4 Emissions from LDC Demolition & Construction

Onsite Equipment	CH_4 Emissions (metric tons/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	5.53E-04	5.53E-04	5.53E-04	1.11E-03	1.11E-03	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04	5.53E-04
Excavator	4.29E-04	4.29E-04	4.29E-04	4.29E-04	2.15E-04	2.15E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Grader	0.00E+00	0.00E+00	0.00E+00	8.40E-04	8.40E-04	8.40E-04	8.40E-04	4.20E-04	4.20E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Cranes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-04	2.91E-04	2.91E-04	0.00E+00	0.00E+00	2.91E-04	2.91E-04	5.82E-04	5.82E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	1.84E-04	3.69E-04	3.69E-04	1.84E-04	1.84E-04	1.84E-04	1.84E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	0.00E+00	0.00E+00	0.00E+00	7.48E-04	1.12E-03	1.12E-03	3.74E-04	3.74E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	0.00E+00	0.00E+00	0.00E+00	9.27E-05	1.85E-04	1.85E-04	1.85E-04	1.85E-04	2.78E-04	2.78E-04	2.78E-04	2.78E-04	2.78E-04	1.85E-04	1.85E-04	9.27E-05	9.27E-05
Roller	0.00E+00	0.00E+00	0.00E+00	3.61E-04	3.61E-04	1.80E-04	1.80E-04	1.80E-04	1.80E-04	1.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Crushing/Proc. Equipment	1.80E-04	1.80E-04	1.80E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other Construction Equipment	4.35E-04	4.35E-04	4.35E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	1.69E-04	1.69E-04	1.69E-04	3.38E-04	3.38E-04	3.38E-04	1.69E-04	1.69E-04	1.69E-04	1.69E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**1.60E-03**	**1.60E-03**	**1.60E-03**	**3.93E-03**	**4.66E-03**	**3.92E-03**	**2.95E-03**	**2.23E-03**	**1.95E-03**	**1.66E-03**	**1.47E-03**	**1.58E-03**	**1.58E-03**	**7.39E-04**	**7.39E-04**	**6.46E-04**	**6.46E-04**
Onsite Total (metric tons/day) [a]	**6.95E-05**	**6.95E-05**	**6.95E-05**	**1.71E-04**	**2.02E-04**	**1.71E-04**	**1.28E-04**	**9.72E-05**	**8.49E-05**	**7.20E-05**	**6.40E-05**	**6.88E-05**	**6.88E-05**	**3.21E-05**	**3.21E-05**	**2.81E-05**	**2.81E-05**
Onsite Project Total (metric tons)	**3.35E-02**																

Notes:
[a] Per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'., the days per month are as follows:

Appendix 3.3A, Table 5
Onsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Exhaust CO Emissions from LDC Demolition & Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Onsite Dump Truck	0.04	0.04	0.04	0.15	0.06	0.04	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.04**	**0.04**	**0.04**	**0.16**	**0.07**	**0.05**	**0.03**	**0.03**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Vehicle Type	**CO Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Onsite Dump Truck	0.86	0.86	0.86	3.43	1.29	0.86	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.86**	**0.86**	**0.86**	**3.68**	**1.54**	**1.11**	**0.68**	**0.68**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**	**0.25**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Exhaust VOC Emissions from LDC Demolition & Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.01	0.01	0.01	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.04**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**VOC Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Onsite Dump Truck	0.23	0.23	0.23	0.91	0.34	0.23	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.23**	**0.23**	**0.23**	**0.93**	**0.36**	**0.24**	**0.13**	**0.13**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust SO_X Emissions from LDC Demolition & Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump 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	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.01	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.01**	**0.01**	**0.01**	**0.03**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 5
Onsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Exhaust NO_X Emissions from LDC Demolition & Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.18	0.18	0.18	0.70	0.26	0.18	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.18**	**0.18**	**0.18**	**0.70**	**0.26**	**0.18**	**0.09**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Onsite Dump Truck	4.05	4.05	4.05	16.18	6.07	4.05	2.02	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**4.05**	**4.05**	**4.05**	**16.21**	**6.09**	**4.07**	**2.05**	**2.05**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Onsite Project Total (tons)	**0.02**																

Onsite Vehicle Exhaust PM_{10} Emissions from LDC Demolition & Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Onsite Dump Truck	0.03	0.03	0.03	0.13	0.05	0.03	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.03**	**0.03**	**0.03**	**0.14**	**0.05**	**0.04**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust $PM_{2.5}$ Emissions from LDC Demolition & Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump 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	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.02	0.02	0.02	0.08	0.03	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.02**	**0.02**	**0.02**	**0.08**	**0.03**	**0.02**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 5
Onsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Exhaust CO_2 Emissions from LDC Demolition & Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up 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	0.00
Onsite Dump Truck	0.01	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.03**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**CO_2 Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Onsite Dump Truck	0.17	0.17	0.17	0.67	0.25	0.17	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**0.17**	**0.17**	**0.17**	**0.68**	**0.27**	**0.18**	**0.10**	**0.10**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**
Onsite Project Total (metric tons)	**2.00**																

Onsite Vehicle Exhaust N_2O Emissions from LDC Demolition & Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00E+00	0.00E+00	0.00E+00	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08	1.32E-08
Onsite Dump Truck	1.92E-08	1.92E-08	1.92E-08	7.68E-08	2.88E-08	1.92E-08	9.60E-09	9.60E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**1.92E-08**	**1.92E-08**	**1.92E-08**	**9.00E-08**	**4.20E-08**	**3.24E-08**	**2.28E-08**	**2.28E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**	**1.32E-08**
Vehicle Type	**N_2O Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00E+00	0.00E+00	0.00E+00	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07	3.04E-07
Onsite Dump Truck	4.42E-07	4.42E-07	4.42E-07	1.77E-06	6.62E-07	4.42E-07	2.21E-07	2.21E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**4.42E-07**	**4.42E-07**	**4.42E-07**	**2.07E-06**	**9.66E-07**	**7.45E-07**	**5.24E-07**	**5.24E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**	**3.04E-07**
Onsite Project Total (metric tons)	**8.89E-06**																

Onsite Vehicle Exhaust CH_4 Emissions from LDC Demolition & Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00E+00	0.00E+00	0.00E+00	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08	3.26E-08
Onsite Dump Truck	2.04E-08	2.04E-08	2.04E-08	8.16E-08	3.06E-08	2.04E-08	1.02E-08	1.02E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**2.04E-08**	**2.04E-08**	**2.04E-08**	**1.14E-07**	**6.32E-08**	**5.30E-08**	**4.28E-08**	**4.28E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**	**3.26E-08**
Vehicle Type	**CH_4 Emissions (metric tons/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00E+00	0.00E+00	0.00E+00	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07	7.50E-07
Onsite Dump Truck	4.69E-07	4.69E-07	4.69E-07	1.88E-06	7.04E-07	4.69E-07	2.35E-07	2.35E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**4.69E-07**	**4.69E-07**	**4.69E-07**	**2.63E-06**	**1.45E-06**	**1.22E-06**	**9.84E-07**	**9.84E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**	**7.50E-07**
Onsite Project Total (metric tons)	**1.54E-05**																

Notes:
[a] The days per month are per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx', as presented on the 'Fugitive Dust Emissions' tab.

Appendix 3.3A, Table 6
Onsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Idling CO Emissions from LDC Demolition & Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**CO Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.04	0.04	0.04	0.14	0.05	0.04	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.04**	**0.04**	**0.04**	**0.14**	**0.05**	**0.04**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling VOC Emissions from LDC Demolition & Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**VOC Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.01	0.01	0.01	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.01**	**0.01**	**0.01**	**0.04**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling SO_X Emissions from LDC Demolition & Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 6
Onsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Idling NO_X Emissions from LDC Demolition & Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.01	0.01	0.01	0.05	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.05**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**NO_X Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.29	0.29	0.29	1.14	0.43	0.29	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.29**	**0.29**	**0.29**	**1.14**	**0.43**	**0.29**	**0.14**	**0.14**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling PM_{10} Emissions from LDC Demolition & Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling $PM_{2.5}$ Emissions from LDC Demolition & Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 6
Onsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Idling CO_2 Emissions from LDC Demolition & Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a, c]	0.01	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.03**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**CO_2 Emissions (metric tons/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a, c]	0.16	0.16	0.16	0.65	0.24	0.16	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**0.16**	**0.16**	**0.16**	**0.65**	**0.24**	**0.16**	**0.08**	**0.08**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (metric tons)	**1.70**																

Onsite Vehicle Idling N_2O Emissions from LDC Demolition & Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a, c]	1.80E-07	1.80E-07	1.80E-07	7.19E-07	2.69E-07	1.80E-07	8.98E-08	8.98E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**1.80E-07**	**1.80E-07**	**1.80E-07**	**7.19E-07**	**2.69E-07**	**1.80E-07**	**8.98E-08**	**8.98E-08**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Vehicle Type	**N_2O Emissions (metric tons/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a, c]	4.13E-06	4.13E-06	4.13E-06	1.65E-05	6.20E-06	4.13E-06	2.07E-06	2.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**4.13E-06**	**4.13E-06**	**4.13E-06**	**1.65E-05**	**6.20E-06**	**4.13E-06**	**2.07E-06**	**2.07E-06**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Onsite Project Total (metric tons)	**4.34E-05**																

Onsite Vehicle Idling CH_4 Emissions from LDC Demolition & Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Dump Truck [a, c]	4.01E-07	4.01E-07	4.01E-07	1.60E-06	6.01E-07	4.01E-07	2.00E-07	2.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/day)	**4.01E-07**	**4.01E-07**	**4.01E-07**	**1.60E-06**	**6.01E-07**	**4.01E-07**	**2.00E-07**	**2.00E-07**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Vehicle Type	**CH_4 Emissions (metric tons/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Dump Truck [a, c]	9.22E-06	9.22E-06	9.22E-06	3.69E-05	1.38E-05	9.22E-06	4.61E-06	4.61E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**9.22E-06**	**9.22E-06**	**9.22E-06**	**3.69E-05**	**1.38E-05**	**9.22E-06**	**4.61E-06**	**4.61E-06**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**	**0.00E+00**
Onsite Project Total (metric tons)	**9.68E-05**																

Notes:

[a] It is estimated that each onsite dump truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.

[b] The days per month are per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx', as presented on the 'Fugitive Dust Emissions' tab.

[c] Assumed the fuel consumption for the Water Truck, an off-highway vehicle, would be appropriate for the Onsite Dump Truck, and that the hourly consumption is consistent during running and idling

Appendix 3.3A, Table 7
Onsite Fugitive Dust Emissions
EdgeCore LDC
Revised July 2019

Demolition, Grading, and Truck Dumping/Loading Activity Levels for LDC Demolition & Construction

Source	Monthly Activity Levels																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Disturbance (acres) [a]	0	0	0	2	2	2	2	2	2	0	0	0	0	0	0	0	0
Soil Imported/Exported (cubic yards) [b]	0	0	0	1,800	1,800	1,800	1,800	1,800	0	0	0	0	0	0	0	0	0
Demolition Waste Generated (tons) [c]	6,033	6,033	6,033	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition Waste Exported (tons) [c]	400	400	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Notes:

[a] Estimated a total of 12 acres is disturbed during demolition and construction, as provided in 'MECP1_Santa_Clara_1_SPPE_Data_Needs_01-11-19 working copy.xlsx'; assumed this disturbance was equally distributed amongst the months in which graders are utilized.

[b] Estimated a total of 9,000 cubic yards of soil material is excavated and exported during demolition and construction, as provided in 'MECP1_Santa_Clara_1_SPPE_Data_Needs_01-11-19 working copy.xlsx'; assumed the exports and associated loading/dumping activity are equally distributed amongst the months in which front end loaders are utilized.

[c] According to SPPE Application, Section 2 (June 2019), demolition of existing foundations, underground utilities, and asphalt is expected to generate approximately 12,000 tons of concrete waste and 6,100 tons of asphalt waste; all of the concrete waste and approximately 4,900 tons of the asphalt waste will remain onsite for reuse, and the balance of the asphalt waste (approximately 1,200 tons) will be hauled to a landfill for disposal. It was assumed the waste generation and associated loading activity are equally distributed amongst the 3 months of demolition.

Onsite Vehicle Fugitive PM_{10} Emissions from LDC Demolition & Construction

Vehicle Type	Fugitive PM_{10} Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Onsite Dump Truck	3.52	3.52	3.52	14.06	5.27	3.52	1.76	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**3.52**	**3.52**	**3.52**	**15.82**	**7.03**	**5.27**	**3.52**	**3.52**	**1.76**	**1.76**	**1.76**	**1.76**	**1.76**	**1.76**	**1.76**	**1.76**	**1.76**

Vehicle Type	Fugitive PM_{10} Emissions (lb/month) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43	40.43
Onsite Dump Truck	80.86	80.86	80.86	323.45	121.29	80.86	40.43	40.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**80.86**	**80.86**	**80.86**	**363.88**	**161.72**	**121.29**	**80.86**	**80.86**	**40.43**	**40.43**	**40.43**	**40.43**	**40.43**	**40.43**	**40.43**	**40.43**	**40.43**
Onsite Project Total (tons)	**0.71**																

Notes:

[a] Emissions based on the highest (controlled) unpaved road emission factor for PM_{10}.

Appendix 3.3A, Table 7
Onsite Fugitive Dust Emissions
EdgeCore LDC
Revised July 2019

Onsite Vehicle Fugitive $PM_{2.5}$ Emissions from LDC Demolition & Construction

Vehicle Type	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onsite Pick-up Truck	0.00	0.00	0.00	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Onsite Dump Truck	0.35	0.35	0.35	1.41	0.53	0.35	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.35**	**0.35**	**0.35**	**1.58**	**0.70**	**0.53**	**0.35**	**0.35**	**0.18**	**0.18**	**0.18**	**0.18**	**0.18**	**0.18**	**0.18**	**0.18**	**0.18**
Vehicle Type	**Fugitive $PM_{2.5}$ Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	0.00	0.00	0.00	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04	4.04
Onsite Dump Truck	8.09	8.09	8.09	32.34	12.13	8.09	4.04	4.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**8.09**	**8.09**	**8.09**	**36.39**	**16.17**	**12.13**	**8.09**	**8.09**	**4.04**	**4.04**	**4.04**	**4.04**	**4.04**	**4.04**	**4.04**	**4.04**	**4.04**
Onsite Project Total (tons)	**0.07**																

Notes:
[a] Emissions based on the highest (controlled) unpaved road emission factor for $PM_{2.5}$.

Onsite Grading, Truck Dumping/Loading, Demolition Waste Generation, and Demolition Waste Loading Fugitive PM_{10} Emissions from LDC Demolition & Construction

Demolition & Construction Activity	Fugitive PM_{10} Emissions (lb/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading [c]	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Generation	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Loading	0.23	0.23	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.41**	**0.41**	**0.41**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Demolition & Construction Activity	**Fugitive PM_{10} Emissions (lb/month) [a, b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Grading	0.00	0.00	0.00	0.83	0.83	0.83	0.83	0.83	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.00	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Generation	4.24	4.24	4.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Loading	5.20	5.20	5.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**9.43**	**9.43**	**9.43**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.83**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.02**																

Notes:
[a] Work days per month are as follows, per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx': 23
[b] Emissions based on the highest (controlled) emission factor for PM_{10}.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is loaded to the truck the same month it is exported.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017), the following conversion factor was used: 1.26 tons/cubic yard

Appendix 3.3A, Table 7
Onsite Fugitive Dust Emissions
EdgeCore LDC
Revised July 2019

Onsite Grading, Truck Dumping/Loading, Demolition Waste Generation, and Demolition Waste Loading Fugitive $PM_{2.5}$ Emissions from LDC Demolition & Construction

Demolition & Construction Activity	Fugitive $PM_{2.5}$ Emissions (lb/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Grading [c]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Generation	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Loading	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.06**	**0.06**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Demolition & Construction Activity	**Fugitive $PM_{2.5}$ Emissions (lb/month) [a, b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Grading	0.00	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Generation	0.64	0.64	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition Waste Loading	0.79	0.79	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**1.43**	**1.43**	**1.43**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Notes:
[a] Work days per month are as follows, per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx': 23
[b] Emissions based on the highest (controlled) emission factor for $PM_{2.5}$.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is loaded to the truck the same month it is exported.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017), the following conversion factor was used: 1.26 tons/cubic yard

Onsite Vehicle Activity for LDC Demolition & Construction

Vehicle Type	Miles/Day [a]	Working Days per Month [b]
Onsite Pick-up Truck	2	23
Onsite Dump Truck	2	23

Notes:
[a] Estimated based on the dimensions of the project site and anticipated activity.
[b] Per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

Appendix 3.3A, Table 7
Onsite Fugitive Dust Emissions
EdgeCore LDC
Revised July 2019

Fugitive Dust Emission Factors for Unpaved Roads
Vehicles on Unpaved Surfaces at Industrial Sites

Parameter	PM_{10}	$PM_{2.5}$
Mean Vehicle Weight [a]	16.5	16.5
Silt Content [b]	8.5	8.5
k [c]	1.5	0.15
a [c]	0.9	0.9
b [c]	0.45	0.45
P [d]	64	64
Emission Factor (Uncontrolled, lb/mile) [e]	1.95	0.20
Reduction from Watering Twice Daily [f]	55%	55%
Emission Factor (Controlled, lb/mile)	0.88	0.09

Notes:

[a] Mean vehicle weight assumes that medium/heavy duty trucks weigh 16.5 tons.

[b] Silt content taken from Table 13.2.2-1 of Section 13.2.2 of *AP-42* (EPA, 2006) for a Construction Site, Scraper Route; this value is consistent with the CalEEMod default for the San Francisco Bay Area Air Basin.

[c] k, a, and b taken from Table 13.2.2-2 of Section 13.2.2 of *AP-42* (EPA, 2006) for industrial roads.

[d] P taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin.

[e] Emission factor calculated using Equations 1a and 2 from Section 13.2.2 of *AP-42* (EPA, 2006):

Emission Factor (lb/mile) = {k (lb/mile) x [Silt Content (%) / 12]^{a} x [Mean Vehicle Weight (tons) / 3]^{b}} x [(365 - P) / 365]

[f] Control efficiency taken from Table XI-D of the *SCAQMD CEQA Handbook* for Travel Over Unpaved Roads (SCAQMD, 2007).

Fugitive Dust Emission Factors for Truck Dumping/Loading
Truck Dumping on a Pile or Loading to a Truck from a Pile

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U [b]	4.9	4.9
M [a]	12.0	12.0
Emission Factor (lb/ton) [c]	0.0001	0.00001
Reduction from Watering to Maintain 12% Moisture [d]	69%	69%
Emission Factor (Controlled, lb/ton)	0.00003	0.000004

Notes:

[a] k and M taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

[b] U taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin. Value converted from units of m/s to mph.

[c] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017):

Emission Factor (lb/ton) = k x 0.0032 x [U (mph) / 5]$^{1.3}$ / [M (%) / 2]$^{1.4}$

[d] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Scraper Loading and Unloading (SCAQMD, 2007).

Appendix 3.3A, Table 7
Onsite Fugitive Dust Emissions
EdgeCore LDC
Revised July 2019

Fugitive Dust Emission Factors for Grading
Grading Equipment Passes

Parameter	PM_{10}	$PM_{2.5}$
S [a]	7.1	7.1
F [a]	0.6	0.031
Emission Factor (lb/VMT) [b]	1.543	0.167
Reduction from Watering Every 3 hours [c]	61%	61%
Emission Factor (Controlled, lb/VMT)	0.602	0.065

Notes:
[a] S and F taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
[b] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017):
PM_{10} Emission Factor (lb/VMT) = 0.051 x [S (mph)]$^{2.0}$ x F_{PM10}
$PM_{2.5}$ Emission Factor (lb/VMT) = 0.04 x [S (mph)]$^{2.5}$ x $F_{PM2.5}$
[c] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Construction Activities (SCAQMD, 2007).

Fugitive Dust Emission Factors for Demolition Waste Generation
Mechanical Dismemberment

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U [b]	4.9	4.9
M [a]	2	2
Emission Factor (lb/ton) [c]	0.0011	0.00017
Reduction from Watering Every 4 hours [d]	36%	36%
Emission Factor (Controlled, lb/ton)	0.0007	0.0001

Notes:
[a] k and M taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
[b] U taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin. Value converted from units of m/s to mph.
[c] Emission factor calculated using the following equation from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017):
Emission Factor (lb/ton) = k x 0.0032 x [U (mph) / 5]$^{1.3}$ / [M (%) / 2]$^{1.4}$
[d] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Active Demolition and Debris Removal (SCAQMD, 2007).

Fugitive Dust Emission Factors for Demolition Waste Loading
Debris Loading

Parameter	PM_{10}	$PM_{2.5}$
EF [a]	0.058	0.058
k [a]	0.35	0.053
Emission Factor (lb/ton) [b]	0.020	0.003
Reduction from Watering Every 4 hours [c]	36%	36%
Emission Factor (Controlled, lb/ton)	0.013	0.002

Notes:
[a] EF and k taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
[b] Emission factor calculated using the following equation from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017):
Emission Factor (lb/ton) = k x EF (lb/ton)
[c] Control efficiency taken from Table XI-A of the *SCAQMD CEQA Handbook* for Active Demolition and Debris Removal (SCAQMD, 2007).

Appendix 3.3A, Table 8
Onsite Paving Emissions
EdgeCore LDC
Revised July 2019

Paving VOC Emissions from LDC Demolition & Construction

Paving Area				VOC Emissions (lb/day) [a]													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Parking lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.19
Onsite Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.19**	**0.19**	**0.19**	**0.19**	**0.19**	**0.19**
Paving Area				VOC Emissions (lb/month) [a]													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Parking lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.28	4.28	4.28	4.28	4.28	4.28
Onsite Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.28**	**4.28**	**4.28**	**4.28**	**4.28**	**4.28**
Onsite Project Total (tons)	**0.01**																

Notes:

[a] Assumed paving activities occur during only the last six months of construction.

Paving Emission Variables

Parameter	Value
Total Paved Area (acres) [a]	9.8
Working Days per Month [b]	23.0
Emission Factor (lb/acre) [c]	2.6

Notes:

[a] Total paved area taken from 'MECP1_Santa_Clara_1_SPPE_Data_Needs_01-11-19 working copy.xlsx', and includes both onsite and offsite paved areas.

[b] Working days per month are per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

[c] Emission factor is per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Usage During LDC Demolition & Construction

Vehicle Type	Number per Day																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a, e]	0	0	0	0	0	1	3	3	4	2	2	3	3	2	3	2	0
Material Hauling Trucks [b, c, e]	10	10	10	6	20	19	12	10	5	6	8	10	9	8	6	2	1
Construction Worker Commute [d]	6	6	6	15	36	29	34	50	43	57	116	117	126	129	121	99	22

Notes:

[a] Offsite Delivery Trucks include trucks transporting "Consumables & Supplies", as provided in 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

[b] Material Hauling Trucks for Months 1 through 3 are based on SPPE Application, Section 2 (June 2019), which indicates that offsite disposal of asphalt will require a total of approximately 30 truck trips during the demolition period.

[c] Material Hauling Trucks for Months 4 through 17 include trucks transporting "Fill Material", "Mechanical Equipment", "Electrical Equip. & Mtrls", "Concrete and Rebar", "Steel/Architectural", "Contractor Mobilization", "Contractor Demobilization", "Construction Equipment", "IC Generator", "Switchyard Equip", "Heavy Haul Truck Deliveries" and "HVAC System", as provided in 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

[d] Assumed 1 commute per 1 worker; number of workers taken from 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx' and Table 2-1 of SPPE Application, Section 2 (June 2019).

[e] Assumed deliveries and material hauling would occur 23 days per month per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

Offsite Vehicle Exhaust CO Emissions from LDC Demolition & Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.05	0.06	0.03	0.04	0.05	0.05	0.04	0.05	0.03	0.01
Material Hauling Trucks	0.48	0.48	0.48	0.29	0.97	0.89	0.58	0.48	0.23	0.28	0.39	0.50	0.44	0.39	0.29	0.11	0.03
Construction Worker Commute	0.27	0.27	0.27	0.67	1.61	1.30	1.52	2.23	1.92	2.55	5.18	5.23	5.63	5.76	5.41	4.42	0.98
Offsite Total (lb/day)	**0.75**	**0.75**	**0.75**	**0.96**	**2.58**	**2.20**	**2.14**	**2.76**	**2.21**	**2.86**	**5.61**	**5.77**	**6.12**	**6.19**	**5.74**	**4.56**	**1.02**
Vehicle Type	**CO Emissions (lb/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.41	0.99	1.09	1.37	0.73	0.91	1.09	1.20	0.86	1.06	0.68	0.16
Material Hauling Trucks	11.02	11.02	11.02	6.76	22.42	20.41	13.32	11.02	5.27	6.47	9.01	11.50	10.06	9.01	6.66	2.54	0.72
Construction Worker Commute	6.16	6.16	6.16	15.41	36.99	29.80	34.93	51.37	44.18	58.57	119.19	120.21	129.46	132.54	124.32	101.72	22.60
Offsite Total (lb/month)	**17.19**	**17.19**	**17.19**	**22.17**	**59.41**	**50.61**	**49.25**	**63.48**	**50.82**	**65.77**	**129.11**	**132.80**	**140.73**	**142.41**	**132.04**	**104.94**	**23.49**
Offsite Project Total (tons)	**0.61**																

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Exhaust VOC Emissions from LDC Demolition & Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Material Hauling Trucks	0.11	0.11	0.11	0.07	0.23	0.21	0.14	0.11	0.05	0.07	0.09	0.12	0.10	0.09	0.07	0.03	0.01
Construction Worker Commute	0.00	0.00	0.00	0.01	0.03	0.02	0.03	0.04	0.03	0.05	0.09	0.09	0.10	0.10	0.10	0.08	0.02
Offsite Total (lb/day)	**0.12**	**0.12**	**0.12**	**0.08**	**0.26**	**0.24**	**0.17**	**0.17**	**0.10**	**0.12**	**0.20**	**0.22**	**0.22**	**0.21**	**0.18**	**0.11**	**0.03**
Vehicle Type	**VOC Emissions (lb/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.10	0.26	0.28	0.35	0.19	0.23	0.28	0.31	0.22	0.27	0.18	0.04
Material Hauling Trucks	2.59	2.59	2.59	1.59	5.27	4.80	3.13	2.59	1.24	1.52	2.12	2.70	2.37	2.12	1.57	0.60	0.17
Construction Worker Commute	0.11	0.11	0.11	0.28	0.67	0.54	0.63	0.92	0.80	1.05	2.15	2.16	2.33	2.39	2.24	1.83	0.41
Offsite Total (lb/month)	**2.70**	**2.70**	**2.70**	**1.87**	**5.94**	**5.44**	**4.02**	**3.80**	**2.39**	**2.76**	**4.50**	**5.15**	**5.01**	**4.73**	**4.08**	**2.60**	**0.62**
Offsite Project Total (tons)	**0.03**																

Offsite Vehicle Exhaust SO_X Emissions from LDC Demolition & Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks	0.01	0.01	0.01	0.01	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Construction Worker Commute	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.03**	**0.03**	**0.02**	**0.02**	**0.01**	**0.02**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.02**	**0.00**
Vehicle Type	**SO_X Emissions (lb/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.04	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.00
Material Hauling Trucks	0.32	0.32	0.32	0.19	0.64	0.59	0.38	0.32	0.15	0.19	0.26	0.33	0.29	0.26	0.19	0.07	0.02
Construction Worker Commute	0.02	0.02	0.02	0.05	0.11	0.09	0.10	0.15	0.13	0.18	0.36	0.36	0.39	0.40	0.37	0.30	0.07
Offsite Total (lb/month)	**0.34**	**0.34**	**0.34**	**0.24**	**0.76**	**0.69**	**0.51**	**0.50**	**0.32**	**0.38**	**0.64**	**0.72**	**0.71**	**0.68**	**0.59**	**0.40**	**0.09**
Offsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Exhaust NO_X Emissions from LDC Demolition & Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.13	0.31	0.34	0.42	0.23	0.28	0.34	0.37	0.27	0.33	0.21	0.05
Material Hauling Trucks	3.78	3.78	3.78	2.32	7.69	7.00	4.57	3.78	1.81	2.22	3.09	3.95	3.45	3.09	2.28	0.87	0.25
Construction Worker Commute	0.02	0.02	0.02	0.06	0.15	0.12	0.14	0.21	0.18	0.24	0.48	0.49	0.52	0.54	0.50	0.41	0.09
Offsite Total (lb/day)	**3.81**	**3.81**	**3.81**	**2.38**	**7.84**	**7.25**	**5.02**	**4.32**	**2.41**	**2.68**	**3.85**	**4.77**	**4.35**	**3.89**	**3.11**	**1.49**	**0.39**
Vehicle Type	NO_X Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	2.88	7.02	7.71	9.67	5.18	6.45	7.71	8.52	6.10	7.48	4.84	1.15
Material Hauling Trucks	86.96	86.96	86.96	53.31	176.94	161.06	105.11	86.96	41.59	51.04	71.08	90.74	79.40	71.08	52.55	20.04	5.67
Construction Worker Commute	0.57	0.57	0.57	1.44	3.45	2.78	3.26	4.79	4.12	5.46	11.11	11.21	12.07	12.36	11.59	9.48	2.11
Offsite Total (lb/month)	**87.53**	**87.53**	**87.53**	**54.75**	**180.39**	**166.72**	**115.39**	**99.46**	**55.38**	**61.68**	**88.64**	**109.66**	**99.99**	**89.54**	**71.63**	**34.36**	**8.93**
Offsite Project Total (tons)	**0.75**																

Offsite Vehicle Exhaust PM_{10} Emissions from LDC Demolition & Construction

Vehicle Type	PM_{10} Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.04	0.06	0.03	0.04	0.04	0.05	0.03	0.04	0.03	0.01
Material Hauling Trucks	0.37	0.37	0.37	0.23	0.76	0.69	0.45	0.37	0.18	0.22	0.30	0.39	0.34	0.30	0.22	0.09	0.02
Construction Worker Commute	0.10	0.10	0.10	0.25	0.59	0.48	0.56	0.83	0.71	0.94	1.92	1.93	2.08	2.13	2.00	1.64	0.36
Offsite Total (lb/day)	**0.47**	**0.47**	**0.47**	**0.48**	**1.35**	**1.18**	**1.05**	**1.24**	**0.94**	**1.19**	**2.26**	**2.36**	**2.47**	**2.47**	**2.27**	**1.75**	**0.39**
Vehicle Type	PM_{10} Emissions (lb/month) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.38	0.92	1.01	1.27	0.68	0.84	1.01	1.12	0.80	0.98	0.63	0.15
Material Hauling Trucks	8.56	8.56	8.56	5.25	17.41	15.85	10.34	8.56	4.09	5.02	6.99	8.93	7.81	6.99	5.17	1.97	0.56
Construction Worker Commute	2.28	2.28	2.28	5.70	13.68	11.02	12.92	18.99	16.33	21.65	44.07	44.45	47.86	49.00	45.96	37.61	8.36
Offsite Total (lb/month)	**10.84**	**10.84**	**10.84**	**10.94**	**31.09**	**27.24**	**24.18**	**28.56**	**21.69**	**27.35**	**51.90**	**54.38**	**56.79**	**56.80**	**52.12**	**40.21**	**9.07**
Offsite Project Total (tons)	**0.26**																

Notes:
[a] PM_{10} Emissions include emissions from exhaust and paved roads.

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Exhaust $PM_{2.5}$ Emissions from LDC Demolition & Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.00
Material Hauling Trucks	0.12	0.12	0.12	0.07	0.24	0.22	0.14	0.12	0.06	0.07	0.10	0.12	0.11	0.10	0.07	0.03	0.01
Construction Worker Commute	0.03	0.03	0.03	0.07	0.16	0.13	0.15	0.22	0.19	0.26	0.52	0.53	0.57	0.58	0.54	0.44	0.10
Offsite Total (lb/day)	**0.14**	**0.14**	**0.14**	**0.14**	**0.40**	**0.35**	**0.31**	**0.36**	**0.27**	**0.34**	**0.63**	**0.66**	**0.69**	**0.69**	**0.63**	**0.48**	**0.11**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.14	0.33	0.36	0.45	0.24	0.30	0.36	0.40	0.29	0.35	0.23	0.05
Material Hauling Trucks	2.70	2.70	2.70	1.66	5.50	5.00	3.27	2.70	1.29	1.59	2.21	2.82	2.47	2.21	1.63	0.62	0.18
Construction Worker Commute	0.62	0.62	0.62	1.55	3.72	3.00	3.51	5.17	4.44	5.89	11.99	12.09	13.02	13.33	12.50	10.23	2.27
Offsite Total (lb/month)	**3.32**	**3.32**	**3.32**	**3.21**	**9.22**	**8.14**	**7.11**	**8.23**	**6.19**	**7.72**	**14.50**	**15.27**	**15.89**	**15.83**	**14.49**	**11.08**	**2.50**
Offsite Project Total (tons)	**0.07**																

Notes:
[a] $PM_{2.5}$ Emissions include emissions from exhaust and paved roads.

Offsite Vehicle Exhaust CO_2 Emissions from LDC Demolition & Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.06	0.08	0.04	0.05	0.06	0.07	0.05	0.06	0.04	0.01
Material Hauling Trucks	0.72	0.72	0.72	0.44	1.47	1.34	0.88	0.72	0.35	0.42	0.59	0.76	0.66	0.59	0.44	0.17	0.05
Construction Worker Commute	0.04	0.04	0.04	0.11	0.27	0.22	0.25	0.37	0.32	0.42	0.86	0.87	0.94	0.96	0.90	0.74	0.16
Offsite Total (metric tons/day)	**0.77**	**0.77**	**0.77**	**0.56**	**1.74**	**1.58**	**1.19**	**1.16**	**0.74**	**0.89**	**1.51**	**1.69**	**1.67**	**1.60**	**1.40**	**0.94**	**0.22**
Vehicle Type	**CO_2 Emissions (metric tons/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00	0.00	0.00	0.00	0.00	0.54	1.31	1.44	1.80	0.96	1.20	1.44	1.59	1.14	1.39	0.90	0.21
Material Hauling Trucks	16.65	16.65	16.65	10.21	33.89	30.84	20.13	16.65	7.96	9.77	13.61	17.38	15.21	13.61	10.06	3.84	1.09
Construction Worker Commute	1.03	1.03	1.03	2.57	6.16	4.97	5.82	8.56	7.36	9.76	19.86	20.03	21.58	22.09	20.72	16.95	3.77
Offsite Total (metric tons/month)	**17.68**	**17.68**	**17.68**	**12.78**	**40.05**	**36.35**	**27.26**	**26.65**	**17.13**	**20.50**	**34.68**	**38.85**	**38.37**	**36.84**	**32.18**	**21.69**	**5.07**
Offsite Project Total (metric tons)	**441.41**																

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Exhaust N_2O Emissions from LDC Demolition & Construction

Vehicle Type	N_2O Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.62E-08	1.86E-07	2.04E-07	2.56E-07	1.37E-07	1.71E-07	2.04E-07	2.25E-07	1.61E-07	1.98E-07	1.28E-07	3.05E-08
Material Hauling Trucks	1.92E-06	1.92E-06	1.92E-06	1.18E-06	3.91E-06	3.56E-06	2.32E-06	1.92E-06	9.18E-07	1.13E-06	1.57E-06	2.00E-06	1.75E-06	1.57E-06	1.16E-06	4.42E-07	1.25E-07
Construction Worker Commute	4.67E-07	4.67E-07	4.67E-07	1.17E-06	2.80E-06	2.26E-06	2.64E-06	3.89E-06	3.34E-06	4.43E-06	9.02E-06	9.10E-06	9.80E-06	1.00E-05	9.41E-06	7.70E-06	1.71E-06
Offsite Total (metric tons/day)	**2.39E-06**	**2.39E-06**	**2.39E-06**	**2.34E-06**	**6.71E-06**	**5.89E-06**	**5.15E-06**	**6.01E-06**	**4.52E-06**	**5.70E-06**	**1.08E-05**	**1.13E-05**	**1.18E-05**	**1.18E-05**	**1.08E-05**	**8.27E-06**	**1.87E-06**
Vehicle Type	**N_2O Emissions (metric tons/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-06	4.27E-06	4.70E-06	5.89E-06	3.15E-06	3.92E-06	4.70E-06	5.19E-06	3.71E-06	4.56E-06	2.94E-06	7.01E-07
Material Hauling Trucks	4.42E-05	4.42E-05	4.42E-05	2.71E-05	8.99E-05	8.18E-05	5.34E-05	4.42E-05	2.11E-05	2.59E-05	3.61E-05	4.61E-05	4.03E-05	3.61E-05	2.67E-05	1.02E-05	2.88E-06
Construction Worker Commute	1.07E-05	1.07E-05	1.07E-05	2.68E-05	6.44E-05	5.19E-05	6.08E-05	8.94E-05	7.69E-05	1.02E-04	2.07E-04	2.09E-04	2.25E-04	2.31E-04	2.16E-04	1.77E-04	3.93E-05
Offsite Total (metric tons/month)	**5.49E-05**	**5.49E-05**	**5.49E-05**	**5.39E-05**	**1.54E-04**	**1.35E-04**	**1.18E-04**	**1.38E-04**	**1.04E-04**	**1.31E-04**	**2.47E-04**	**2.60E-04**	**2.71E-04**	**2.71E-04**	**2.48E-04**	**1.90E-04**	**4.29E-05**
Offsite Project Total (metric tons)	**2.53E-03**																

Offsite Vehicle Exhaust CH_4 Emissions from LDC Demolition & Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.09E-08	1.97E-07	2.17E-07	2.72E-07	1.46E-07	1.81E-07	2.17E-07	2.40E-07	1.72E-07	2.10E-07	1.36E-07	3.24E-08
Material Hauling Trucks	2.04E-06	2.04E-06	2.04E-06	1.25E-06	4.15E-06	3.78E-06	2.47E-06	2.04E-06	9.76E-07	1.20E-06	1.67E-06	2.13E-06	1.86E-06	1.67E-06	1.23E-06	4.70E-07	1.33E-07
Construction Worker Commute	2.24E-06	2.24E-06	2.24E-06	5.61E-06	1.35E-05	1.08E-05	1.27E-05	1.87E-05	1.61E-05	2.13E-05	4.33E-05	4.37E-05	4.71E-05	4.82E-05	4.52E-05	3.70E-05	8.22E-06
Offsite Total (metric tons/day)	**4.28E-06**	**4.28E-06**	**4.28E-06**	**6.86E-06**	**1.76E-05**	**1.47E-05**	**1.54E-05**	**2.09E-05**	**1.73E-05**	**2.26E-05**	**4.52E-05**	**4.61E-05**	**4.92E-05**	**5.00E-05**	**4.67E-05**	**3.76E-05**	**8.39E-06**
Vehicle Type	**CH_4 Emissions (metric tons/month)**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-06	4.54E-06	4.99E-06	6.25E-06	3.35E-06	4.17E-06	4.99E-06	5.51E-06	3.95E-06	4.84E-06	3.13E-06	7.45E-07
Material Hauling Trucks	4.69E-05	4.69E-05	4.69E-05	2.88E-05	9.55E-05	8.69E-05	5.67E-05	4.69E-05	2.24E-05	2.75E-05	3.84E-05	4.90E-05	4.28E-05	3.84E-05	2.84E-05	1.08E-05	3.06E-06
Construction Worker Commute	5.16E-05	5.16E-05	5.16E-05	1.29E-04	3.09E-04	2.49E-04	2.92E-04	4.30E-04	3.70E-04	4.90E-04	9.97E-04	1.01E-03	1.08E-03	1.11E-03	1.04E-03	8.51E-04	1.89E-04
Offsite Total (metric tons/month)	**9.85E-05**	**9.85E-05**	**9.85E-05**	**1.58E-04**	**4.05E-04**	**3.38E-04**	**3.53E-04**	**4.82E-04**	**3.98E-04**	**5.21E-04**	**1.04E-03**	**1.06E-03**	**1.13E-03**	**1.15E-03**	**1.07E-03**	**8.65E-04**	**1.93E-04**
Offsite Project Total (metric tons)	**9.46E-03**																

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Activity for LDC Demolition & Construction

Vehicle Type	Roundtrip Miles/Day	Working Days per Month [a]
Offsite Delivery Trucks [b]	14.6	23
Material Hauling Trucks [c]	40.0	23
Construction Worker Commute [b]	21.6	23

Notes:

[a] Per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

[b] Roundtrip miles/day for Offsite Delivery Trucks and Construction Worker Commute taken as the Urban, San Francisco Bay Area Air Basin C-NW and H-W values, respectively, from Table 4.2 of Appendix D of the *CalEEMod User's Guide* (BREEZE, 2017).

[c] Roundtrip miles/day for Material Hauling Trucks taken as the default from Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Idling CO Emissions from LDC Demolition & Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.01	0.01	0.01	0.00	0.02	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.00**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**
Vehicle Type	**CO Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.08	0.10	0.05	0.07	0.08	0.09	0.06	0.08	0.05	0.01
Material Hauling Trucks [a]	0.18	0.18	0.18	0.11	0.36	0.33	0.22	0.18	0.09	0.10	0.15	0.19	0.16	0.15	0.11	0.04	0.01
Offsite Total (lb/month)	**0.18**	**0.18**	**0.18**	**0.11**	**0.36**	**0.36**	**0.29**	**0.26**	**0.19**	**0.16**	**0.21**	**0.27**	**0.25**	**0.21**	**0.19**	**0.09**	**0.02**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling VOC Emissions from LDC Demolition & Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**VOC Emissions (lb/month) [b]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Material Hauling Trucks [a]	0.05	0.05	0.05	0.03	0.10	0.09	0.06	0.05	0.02	0.03	0.04	0.05	0.04	0.04	0.03	0.01	0.00
Offsite Total (lb/month)	**0.05**	**0.05**	**0.05**	**0.03**	**0.10**	**0.09**	**0.07**	**0.06**	**0.04**	**0.04**	**0.05**	**0.06**	**0.06**	**0.05**	**0.04**	**0.02**	**0.00**
Offsite Project Total (tons)	**0.00**																

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Idling SO_X Emissions from LDC Demolition & Construction

Vehicle Type	SO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	SO_X Emissions (lb/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.01	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 Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling NO_X Emissions from LDC Demolition & Construction

Vehicle Type	NO_X Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.00
Material Hauling Trucks [a]	0.06	0.06	0.06	0.04	0.13	0.11	0.07	0.06	0.03	0.04	0.05	0.06	0.06	0.05	0.04	0.01	0.00
Offsite Total (lb/day)	**0.06**	**0.06**	**0.06**	**0.04**	**0.13**	**0.12**	**0.10**	**0.09**	**0.06**	**0.05**	**0.07**	**0.09**	**0.08**	**0.07**	**0.06**	**0.03**	**0.01**
Vehicle Type	NO_X Emissions (lb/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.22	0.54	0.59	0.74	0.40	0.49	0.59	0.65	0.47	0.57	0.37	0.09
Material Hauling Trucks [a]	1.43	1.43	1.43	0.87	2.90	2.64	1.72	1.43	0.68	0.84	1.17	1.49	1.30	1.17	0.86	0.33	0.09
Offsite Total (lb/month)	**1.43**	**1.43**	**1.43**	**0.87**	**2.90**	**2.86**	**2.26**	**2.02**	**1.42**	**1.23**	**1.66**	**2.08**	**1.95**	**1.63**	**1.43**	**0.70**	**0.18**
Offsite Project Total (tons)	**0.01**																

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Idling PM_{10} Emissions from LDC Demolition & Construction

Vehicle Type	PM_{10} Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	PM_{10} Emissions (lb/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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 Project Total (tons)	**0.00**																

Offsite Vehicle Idling $PM_{2.5}$ Emissions from LDC Demolition & Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/day)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	$PM_{2.5}$ Emissions (lb/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.00	0.00	0.00	0.00	0.00	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 Total (lb/month)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**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 Project Total (tons)	**0.00**																

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
EdgeCore LDC
Revised July 2019

Offsite Vehicle Idling CO_2 Emissions from LDC Demolition & Construction

Vehicle Type	CO_2 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Material Hauling Trucks [a]	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Offsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**
Vehicle Type	CO_2 Emissions (metric tons/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.04	0.05	0.03	0.03	0.04	0.04	0.03	0.04	0.02	0.01
Material Hauling Trucks [a]	0.13	0.13	0.13	0.08	0.26	0.23	0.15	0.13	0.06	0.07	0.10	0.13	0.11	0.10	0.08	0.03	0.01
Offsite Total (metric tons/month)	**0.13**	**0.13**	**0.13**	**0.08**	**0.26**	**0.25**	**0.19**	**0.16**	**0.11**	**0.10**	**0.13**	**0.17**	**0.16**	**0.13**	**0.11**	**0.05**	**0.01**
Offsite Project Total (metric tons)	**2.28**																

Offsite Vehicle Idling CH_4 Emissions from LDC Demolition & Construction

Vehicle Type	CH_4 Emissions (metric tons/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.31E-09	1.05E-08	1.16E-08	1.45E-08	7.77E-09	9.66E-09	1.16E-08	1.28E-08	9.15E-09	1.12E-08	7.25E-09	1.73E-09
Material Hauling Trucks [a]	4.30E-08	4.30E-08	4.30E-08	2.64E-08	8.75E-08	7.97E-08	5.20E-08	4.30E-08	2.06E-08	2.52E-08	3.52E-08	4.49E-08	3.93E-08	3.52E-08	2.60E-08	9.91E-09	2.81E-09
Offsite Total (metric tons/day)	**4.30E-08**	**4.30E-08**	**4.30E-08**	**2.64E-08**	**8.75E-08**	**8.40E-08**	**6.25E-08**	**5.46E-08**	**3.51E-08**	**3.30E-08**	**4.48E-08**	**5.65E-08**	**5.20E-08**	**4.43E-08**	**3.72E-08**	**1.72E-08**	**4.53E-09**
Vehicle Type	CH_4 Emissions (metric tons/month) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Delivery Trucks [a]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.92E-08	2.42E-07	2.66E-07	3.33E-07	1.79E-07	2.22E-07	2.66E-07	2.94E-07	2.10E-07	2.58E-07	1.67E-07	3.97E-08
Material Hauling Trucks [a]	9.89E-07	9.89E-07	9.89E-07	6.07E-07	2.01E-06	1.83E-06	1.20E-06	9.89E-07	4.73E-07	5.81E-07	8.09E-07	1.03E-06	9.03E-07	8.09E-07	5.98E-07	2.28E-07	6.45E-08
Offsite Total (metric tons/month)	**9.89E-07**	**9.89E-07**	**9.89E-07**	**6.07E-07**	**2.01E-06**	**1.93E-06**	**1.44E-06**	**1.26E-06**	**8.07E-07**	**7.59E-07**	**1.03E-06**	**1.30E-06**	**1.20E-06**	**1.02E-06**	**8.56E-07**	**3.95E-07**	**1.04E-07**
Offsite Project Total (metric tons)	**1.77E-05**																

Notes:
[a] It is estimated that each offsite delivery truck and material haul truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month are per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx', as presented on the 'Offsite Vehicles Exh Emissions' tab.

Appendix 3.3A, Table 11
Equations Used to Calculate Criteria Pollutant and GHG Emissions
EdgeCore LDC
Revised July 2019

Equations Used to Calculate Emissions from LDC Demolition & Construction

Emission Source	Pollutants	Equations	Variables
Construction Equipment Exhaust	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_m = EF \times N \times Hp \times L \times H / 453.6$	E_m = Emissions (lb/month)
			EF = Emission factor (g/bhp-hr)
			N = Number of pieces of equipment
			Hp = Average horsepower
			L = Average load factor
			H = Hours per month
			453.6 = Conversion from g to lb
		$E_d = E_m / D$	E_d = Emissions (lb/day)
			E_m = Emissions (lb/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
	CO_2	$E_m = N \times FC \times EF \times H \times 0.001$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (kg/gallon)
			H = Hours per month
			0.001 = Conversion from kg to metric tons
		$E_d = E_m / D$	E_d = Emissions (metric tons/day)
			E_m = Emissions (metric tons/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
	CH_4 and N_2O	$E_m = N \times FC \times EF \times H / 1{,}000 \times 0.001$	E_m = Emissions (metric tons/month)
			N = Number of pieces of equipment
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (g/gallon)
			H = Hours per month
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_d = E_m / D$	E_d = Emissions (metric tons/day)
			E_m = Emissions (metric tons/month)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
Onsite and Offsite Vehicle Exhaust and Paved Road Fugitive PM_{10} and $PM_{2.5}$	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times VMT \times EF / 453.6$	E_d = Emissions (lb/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = EMFAC2014 emission factor (g/mile). Paved road fugitive PM_{10} and $PM_{2.5}$ emission factors calculated per Section 13.2.1 of *AP-42* (EPA, 2011).
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Emissions (tpy)
			E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)

Appendix 3.3A, Table 11
Equations Used to Calculate Criteria Pollutant and GHG Emissions
EdgeCore LDC
Revised July 2019

Equations Used to Calculate Emissions from LDC Demolition & Construction

Emission Source	Pollutants	Equations	Variables
Onsite Unpaved Road Fugitive PM_{10} and $PM_{2.5}$	PM_{10} and $PM_{2.5}$	$E_d = N \times VMT \times EF$	E_d = Emissions (lb/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = Unpaved road fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/mile) calculated per Section 13.2.2 of *AP-42* (EPA, 2006).
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Emissions (tpy)
			E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
Onsite and Offsite Vehicle Exhaust	CO_2	$E_d = N \times VMT / FE \times EF \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			FE = Fuel economy (mpg)
			EF = Emission factor (kg/gallon)
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Emissions (metric tons/month)
	CH_4 and N_2O	$E_d = N \times VMT \times EF / 1{,}000 \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			VMT = Vehicle miles traveled per day (miles/day)
			EF = Emission factor (g/mile)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)
Onsite and Offsite Vehicle Idling	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	$E_d = N \times I \times EF / 453.6$	E_d = Emissions (lb/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2014 emission factor (g/idle-hr)
			453.6 = Conversion from g to lb
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
Onsite Vehicle Idling	CO_2	$E_d = N \times I \times FC \times EF \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (kg/gallon)
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Emissions (metric tons/month)
	CH_4 and N_2O	$E_d = N \times I \times FC \times EF / 1{,}000 \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			FC = Fuel consumption (gallons/hour)
			EF = Emission factor (kg/gallon)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_m = Emissions (metric tons/month)
			E_t = Total Project Emissions (metric tons)

Appendix 3.3A, Table 11
Equations Used to Calculate Criteria Pollutant and GHG Emissions
EdgeCore LDC
Revised July 2019

Equations Used to Calculate Emissions from LDC Demolition & Construction

Emission Source	Pollutants	Equations	Variables
Offsite Vehicle Idling	CO_2 and CH_4	$E_d = N \times I \times EF / 1{,}000 \times 0.001$	E_d = Emissions (metric tons/day)
			N = Number of vehicles
			I = Idle time per vehicle per day (idle-hr/day)
			EF = EMFAC2014 emission factor (g/idle-hr)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
		$E_m = E_d \times D$	E_m = Emissions (metric tons/month)
			E_d = Emissions (metric tons/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m$	E_t = Total Project Emissions (metric tons)
			E_m = Emissions (metric tons/month)
Onsite Fugitive PM_{10} and $PM_{2.5}$ from Truck Dumping/Loading	PM_{10} and $PM_{2.5}$	$E_d = V \times 1.2641662 \times EF / D$	E_d = Emissions (lb/day)
			V = Volume of material dumped (cubic yards)
			1.2641662 = Conversion from cubic yards to tons
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/ton), calculated per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Onsite Fugitive PM_{10} and $PM_{2.5}$ from Grading	PM_{10} and $PM_{2.5}$	$E_d = EF \times A / W \times 43{,}560 / 5{,}280 / D$	E_d = Emissions (lb/day)
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/mile), calculated per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
			A = Site disturbed (acres/month)
			W = Grading equipment blade width (ft)
			43,560 = Conversion factor from square feet to acres
			5,280 = Conversion factor from feet to miles
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Onsite Fugitive PM_{10} and $PM_{2.5}$ from Demolition Waste Generation and Loading	PM_{10} and $PM_{2.5}$	$E_d = W \times EF / D$	E_d = Emissions (lb/day)
			W = Mass of waste generated or loaded (tons)
			EF = Fugitive PM_{10} and $PM_{2.5}$ emission factors (lb/ton), calculated per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
			D = Number of construction days per month
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_m = Emissions (lb/month)
			E_t = Total Project Emissions (tons)
			2,000 = Conversion from lb to tons
Paving	VOC	$E_d = EF \times A$	E_d = Emissions (lb/day)
			EF = VOC emission factor (lb/acre), calculated per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).
			A = Area of parking lot (acres)
		$E_m = E_d \times D$	E_m = Emissions (lb/month)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
		$E_t = \Sigma E_m / 2{,}000$	E_t = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons

Appendix 3.3A, Table 12
Equipment Criteria Pollutant Emission Factors
EdgeCore LDC
Revised July 2019

Equipment Emission Factors for LDC Demolition & Construction

Equipment [a]	Hours per Month [b]	Horsepower [c]	Load Factor [c]	Emission Factors (g/bhp-hr) [d]						Fuel Consumption (gallons/hour) [e]
				CO	VOC	NO_X	SO_X	PM_{10}	$PM_{2.5}$	
Water Truck [f]	230	402	0.38	1.483	0.263	2.669	0.005	0.097	0.089	4.15
Excavator	230	158	0.38	3.082	0.246	2.533	0.005	0.122	0.112	1.61
Grader	230	187	0.41	1.359	0.360	4.866	0.005	0.156	0.144	3.15
Cranes	230	231	0.29	1.941	0.427	5.084	0.005	0.216	0.198	2.18
Backhoe	230	97	0.37	3.638	0.368	3.693	0.005	0.247	0.227	1.38
Rubber Tired Loader	230	203	0.36	1.302	0.309	3.745	0.005	0.126	0.116	2.80
Forklift	230	89	0.20	3.804	0.509	4.550	0.005	0.352	0.324	0.70
Roller	230	80	0.38	3.557	0.423	4.179	0.005	0.275	0.253	1.35
Crushing/Proc. Equipment [g]	230	85	0.78	3.739	0.519	3.544	0.006	0.241	0.241	1.35
Other Construction Equipment	230	172	0.42	3.256	0.412	4.433	0.005	0.233	0.215	3.26
Other General Industrial Equipment	230	88	0.34	3.821	0.500	4.497	0.005	0.343	0.315	1.27

Notes:

[a] Assumed all equipment is fired with diesel fuel, per Section 4.2 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

[b] Hours per month calculated based on the following schedule, per 'BEP Comments MECP1_Santa_Clara_1_SPPE_Data_Needs_01-09-19.xlsx'.

Work hours per day: 10
Work days per month: 23

[c] Construction equipment horsepower and load factor taken from Table 3.3 of Appendix D of the *CalEEMod User's Guide* (BREEZE, 2017).

[d] Construction equipment emission factors taken from Table 3.4 of Appendix D of the *CalEEMod User's Guide* (BREEZE, 2017).

[e] Fuel consumption based on consumption in the OFFROAD2017 Web database (https://www.arb.ca.gov/orion/) model for the San Francisco Bay Area in the year 2019; value estimated by dividing the reported consumption (gallons/year) by the reported activity (hours/year)

[f] Horsepower, load factor, and emission factors for Off-Highway Trucks were assumed representative of Water Trucks.

[g] In the absence of equipment-specific OFFROAD2017 output, the Crushing/Proc. Equipment fuel consumption was assumed equal to that of the Roller based on the two equipment categories having similar horsepowers and emission factors.

Appendix 3.3A, Table 13
Vehicle Criteria Pollutant Emission Factors
EdgeCore LDC
February 2019

Vehicle Exhaust Emission Factors for LDC Demolition & Construction

Vehicle Type	Vehicle Class [a]	Exhaust Emission Factors (g/mile) [b]						Paved Road Emission Factors (g/mile) [c]		Fuel Economy (mpg) [d]
		CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	
Onsite Pick-up Truck	Light-duty Truck	2.494	0.160	0.012	0.232	0.059	0.030	N/A	N/A	22.620
Offsite Delivery Trucks	Heavy/Medium-duty Diesel	0.505	0.130	0.013	3.577	0.168	0.093	0.300	0.075	6.954
Material Hauling Trucks	Heavy-duty Diesel	0.543	0.128	0.016	4.287	0.121	0.058	0.300	0.075	5.640
Construction Worker Commute	Light-duty Auto/Truck	0.938	0.017	0.003	0.087	0.046	0.019	0.300	0.075	25.474
Onsite Dump Truck	Heavy-duty Diesel	4.225	1.121	0.031	19.947	0.160	0.095	N/A	N/A	5.640

Vehicle Idling Emission Factors for LDC Demolition & Construction

Vehicle Type	Vehicle Class [a]	Idle Emission Factors (g/idle-hr) [b]					
		CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$
Offsite Delivery Trucks	Heavy/Medium-duty Diesel	6.515	1.025	0.065	47.998	0.158	0.151
Material Hauling Trucks	Heavy-duty Diesel	4.223	1.111	0.062	33.742	0.047	0.045
Onsite Dump Truck	Heavy-duty Diesel	4.223	1.111	0.062	33.742	0.047	0.045

Notes:

[a] The vehicle classes are represented as follows:

Light-duty Truck: Assumed to be 50% LDT1 Gas and 50% LDT2 Gas values.

Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

Heavy/Medium-duty Diesel: Assumed to be 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

Light-duty Auto/Truck: Assumed to be 50% LDA Gas, 25% LDT1 Gas, and 25% LDT2 Gas values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

[b] Exhaust and idling emission factors from EMFAC2014 for the San Francisco Bay Area Air Basin (Santa Clara County), calendar year 2019. A speed of 5 mph was assumed for onsite vehicles; a speed of 40 mph was assumed for offsite vehicles and worker commutes, which is consistent with the CalEEMod defaults. An average temperature of 62°F and humidity of 63% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis, 2007).

[c] Paved road emission factors calculated using CalEEMod methodology, as described below.

[d] Fuel economy from the EMFAC2014 Web Database (http://www.arb.ca.gov/emfac/2014/) for the San Francisco Bay Area, calendar year 2019.

Derivation of Paved Road Emission Factors
Vehicles on Paved Roads

Parameter	PM_{10}	$PM_{2.5}$
Average Weight [a]	2.4	2.4
k [b]	1.0	0.25
sL [a]	0.1	0.1
Emission Factor (g/mile) [c]	0.300	0.075

Notes:

[a] Average Weight and sL taken as the CalEEMod defaults for the Santa Clara climate region of the San Francisco Bay Area Air Basin.

[b] k taken from Table 13.2.1-1 of Section 13.2.1 of *AP-42* (EPA, 2011).

[c] Emission factor calculated using Equation 1 from Section 13.2.1 of *AP-42* (EPA, 2011):

$$\text{Emission Factor (g/mile)} = k \text{ (g/mile)} \times [sL \text{ (g/m}^2)]^{0.91} \times [\text{Average Weight (tons)}]^{1.02}$$

Appendix 3.3A, Table 14
GHG Emission Factors
EdgeCore LDC
February 2019

GHG Exhaust Emission Factors for LDC Demolition & Construction

Fuel / Category Type	Emission Factor	Emission Factor Units	Emission Factor Source
CO_2 Emission Factors			
Gasoline	8.78	kg CO_2/gallon	The Climate Registry. 2018. 2018 *Climate Registry Default Emission Factors* . Table 13.1. May.
Diesel	10.21	kg CO_2/gallon	The Climate Registry. 2018. 2018 *Climate Registry Default Emission Factors* . Table 13.1. May.
N_2O Emission Factors			
Gasoline Passenger Car Model Year 2014 [a]	0.0036	g N_2O/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Gasoline Light-duty Truck Model Year 2014 [a]	0.0066	g N_2O/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Diesel Heavy-duty Truck Model Year 1960 - 2014 [a]	0.0048	g N_2O/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Diesel Off-road Vehicle	0.26	g N_2O/gallon	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.7. May.
CH_4 Emission Factors			
Gasoline Passenger Car Model Year 2014 [a]	0.0173	g CH_4/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Gasoline Light-duty Truck Model Year 2014 [a]	0.0163	g CH_4/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Diesel Heavy-duty Truck Model Year 1960 - 2014 [a]	0.0051	g CH_4/mile	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.5. May.
Diesel Off-road Vehicle	0.58	g CH_4/gallon	The Climate Registry. 2018. *2018 Climate Registry Default Emission Factors* . Table 13.7. May.

Notes:

[a] Model Year 2014 was the most recent year of emission factors available. As a result, it was assumed representative of vehicles used for this project.

GHG Idling Emission Factors (Offsite Vehicles Only) for LDC Construction

Vehicle Type	Vehicle Class [a]	Idling Emission Factors (g/idle-hr) [b]	
		CO_2	CH_4
Offsite Delivery Trucks	Heavy/Medium-duty Diesel	6,825.205	0.048
Material Hauling Trucks	Heavy-duty Diesel	6,542.118	0.052

Notes:

[a] The vehicle classes are represented as follows:

Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

Heavy/Medium-duty Diesel: Assumed to be 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE, 2017).

[b] Idling emission factors from EMFAC2014 for the San Francisco Bay Area Air Basin (Santa Clara County), calendar year 2019. An average temperature of 62°F and humidity of 63% were used per Table B-1 of *CT-EMFAC: A Computer Model to Estimate Transportation Project Emissions* (UC Davis, 2007).

Revised Appendix DR32-C

Appendix DR32-C, Table 1
Demolition & Construction HRA Emission Rates
EdgeCore LDC
Revised July 2019

Emission Rates for HRA Modeling of Demolition & Construction DPM Emissions

Source Grouping	Diesel Particulate Matter [a]	
	(g/s)	(lb/yr average) [b]
Demolition & Construction Total	0.00659	458.40
Demolition & Construction Point (per source) [c]	0.00011	7.90

Notes:

[a] Diesel particulate matter is best represented by PM_{10} emitted as a result of fuel combustion.

[b] Emission rates are the total emissions for project construction (taken from Appendix 3.3A of the Small Power Plant Exemption Application), divided by the construction duration, and only include onsite exhaust.

[c] Number of point sources modeled: 58

Appendix DR32-C, Table 2
AERMOD Source Inputs
EdgeCore LDC
Revised July 2019

AERMOD Source Inputs for LDC Demolition & Construction HRA

Source ID	Stack Release Type	Easting (X)	Northing (Y)	Base Elevation	Stack Height	Temperature	Exit Velocity	Stack Diameter	DPM Emission Rate [a]
		(m)	(m)	(m)	(m)	(K)	(m/s)	(m)	(g/s)
LDC_01	HORIZONTAL	591,478.98	4,138,078.94	8.00	4.6	533	18	0.127	1.137E-04
LDC_02	HORIZONTAL	591,503.98	4,138,078.94	8.00	4.6	533	18	0.127	1.137E-04
LDC_03	HORIZONTAL	591,528.98	4,138,078.94	8.00	4.6	533	18	0.127	1.137E-04
LDC_04	HORIZONTAL	591,553.98	4,138,078.94	8.74	4.6	533	18	0.127	1.137E-04
LDC_05	HORIZONTAL	591,578.98	4,138,078.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_06	HORIZONTAL	591,603.98	4,138,078.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_07	HORIZONTAL	591,478.98	4,138,053.94	8.05	4.6	533	18	0.127	1.137E-04
LDC_08	HORIZONTAL	591,503.98	4,138,053.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_09	HORIZONTAL	591,528.98	4,138,053.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_10	HORIZONTAL	591,553.98	4,138,053.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_11	HORIZONTAL	591,578.98	4,138,053.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_12	HORIZONTAL	591,603.98	4,138,053.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_13	HORIZONTAL	591,478.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_14	HORIZONTAL	591,503.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_15	HORIZONTAL	591,528.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_16	HORIZONTAL	591,553.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_17	HORIZONTAL	591,578.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_18	HORIZONTAL	591,603.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_19	HORIZONTAL	591,628.98	4,138,028.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_20	HORIZONTAL	591,478.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_21	HORIZONTAL	591,503.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_22	HORIZONTAL	591,528.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_23	HORIZONTAL	591,553.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_24	HORIZONTAL	591,578.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_25	HORIZONTAL	591,603.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_26	HORIZONTAL	591,628.98	4,138,003.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_27	HORIZONTAL	591,478.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_28	HORIZONTAL	591,503.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_29	HORIZONTAL	591,528.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_30	HORIZONTAL	591,553.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_31	HORIZONTAL	591,578.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_32	HORIZONTAL	591,603.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_33	HORIZONTAL	591,628.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_34	HORIZONTAL	591,653.98	4,137,978.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_35	HORIZONTAL	591,478.98	4,137,953.94	9.83	4.6	533	18	0.127	1.137E-04
LDC_36	HORIZONTAL	591,503.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_37	HORIZONTAL	591,528.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_38	HORIZONTAL	591,553.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_39	HORIZONTAL	591,578.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_40	HORIZONTAL	591,603.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_41	HORIZONTAL	591,628.98	4,137,953.94	9.00	4.6	533	18	0.127	1.137E-04
LDC_42	HORIZONTAL	591,653.98	4,137,953.94	9.91	4.6	533	18	0.127	1.137E-04
LDC_43	HORIZONTAL	591,478.98	4,137,928.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_44	HORIZONTAL	591,503.98	4,137,928.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_45	HORIZONTAL	591,528.98	4,137,928.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_46	HORIZONTAL	591,553.98	4,137,928.94	9.45	4.6	533	18	0.127	1.137E-04
LDC_47	HORIZONTAL	591,578.98	4,137,928.94	9.45	4.6	533	18	0.127	1.137E-04
LDC_48	HORIZONTAL	591,603.98	4,137,928.94	9.45	4.6	533	18	0.127	1.137E-04
LDC_49	HORIZONTAL	591,628.98	4,137,928.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_50	HORIZONTAL	591,653.98	4,137,928.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_51	HORIZONTAL	591,478.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_52	HORIZONTAL	591,503.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_53	HORIZONTAL	591,528.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_54	HORIZONTAL	591,553.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_55	HORIZONTAL	591,578.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_56	HORIZONTAL	591,603.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_57	HORIZONTAL	591,628.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04
LDC_58	HORIZONTAL	591,653.98	4,137,903.94	10.00	4.6	533	18	0.127	1.137E-04

Note:

[a] DPM emission rates taken from Appendix DR32-C, Table 1, assuming even distribution amongst the modeled sources within the demolition and construction area.

Appendix DR32-C, Table 3
Cancer Impacts due to Diesel Particulate Matter
EdgeCore LDC
Revised July 2019

Modeled Concentrations
Maximum annual impact of annualized project emissions

MEIR	0.00167	µg/m^3	Diesel PM
Sensitive	0.00395	µg/m^3	Diesel PM
MEIW	0.24560	µg/m^3	Diesel PM

Demolition & Construction HRA per the 2015 OEHHA Guidance
Residential Calculation Procedure for Cancer Risks

MEIR

Year	0 (3rd tri)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Dose (mg/kg/day)	5.79E-07	1.75E-06	1.75E-06	1.38E-06	1.38E-06	1.38E-06	1.38E-06	1.38E-06	1.38E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06	1.19E-06	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07	5.37E-07
Risk	1.93E-08	2.33E-07	2.33E-07	4.69E-08	4.69E-08	4.69E-08	4.69E-08	4.69E-08	4.69E-08	4.05E-08	4.05E-08	4.05E-08	4.05E-08	4.05E-08	4.05E-08	4.05E-08	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09	6.16E-09
Rolling 2-yr Risk [a]			4.86E-07	2.80E-07	9.37E-08	9.37E-08	9.37E-08	9.37E-08	9.37E-08	8.74E-08	8.11E-08	8.11E-08	8.11E-08	8.11E-08	8.11E-08	8.11E-08	4.67E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08	1.23E-08
Risk per Million			0.49	0.28	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

MESR

Year	0 (3rd tri)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Dose (mg/kg/day)	1.37E-06	4.13E-06	4.13E-06	3.26E-06	3.26E-06	3.26E-06	3.26E-06	3.26E-06	3.26E-06	2.83E-06	2.83E-06	2.83E-06	2.83E-06	2.83E-06	2.83E-06	2.83E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06
Risk	4.57E-08	5.52E-07	5.52E-07	1.11E-07	1.11E-07	1.11E-07	1.11E-07	1.11E-07	1.11E-07	9.59E-08	9.59E-08	9.59E-08	9.59E-08	9.59E-08	9.59E-08	9.59E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
Rolling 2-yr Risk [a]			1.15E-06	6.63E-07	2.22E-07	2.22E-07	2.22E-07	2.22E-07	2.22E-07	2.07E-07	1.92E-07	1.92E-07	1.92E-07	1.92E-07	1.92E-07	1.92E-07	1.10E-07	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08	2.91E-08
Risk per Million			1.15	0.66	0.22	0.22	0.22	0.22	0.22	0.21	0.19	0.19	0.19	0.19	0.19	0.19	0.11	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03

Worker Calculation Procedure for Cancer Risks

MEIW

Year	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Dose (mg/kg/day)	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.84E-05
Risk	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07	6.04E-07
Rolling 2-yr Risk [a]		1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
Risk per Million		1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21

Note:
[a] Cancer risk was summed on a 2-year basis to conservatively mirror the duration of project demolition and construction (17 months).

Appendix DR32-C, Table 4
Chronic Impacts due to Diesel Particulate Matter
EdgeCore LDC
Revised July 2019

Demolition & Construction HRA per the 2015 OEHHA Guidance
Calculation Procedure for Chronic Hazard Index

Receptor Type	Pollutant	Maximum Annual Modeled Concentration ($\mu g/m^3$) [a]	REL ($\mu g/m^3$) [b]	Chronic Hazard Index
MEIR	Diesel PM	0.00167	5	0.0003
MESR	Diesel PM	0.00395	5	0.0008
MEIW	Diesel PM	0.24560	5	0.0491

Notes:

[a] Maximum Annual Modeled Concentrations taken from Appendix DR32-C, Table 3.

[b] REL taken from the *Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values* (OEHHA and CARB, 2018).

Appendix DR32-C, Table 5
Residential Constants for Cancer Risk
EdgeCore LDC
Revised July 2019

Dose Constants

Year	0 (3rd tri)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
BR/BW	361	1090	1090	861	861	861	861	861	861	745	745	745	745	745	745	745	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Conversion	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001

Risk Constants

Year	0 (3rd tri)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
CPF (Diesel PM)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
ASF	10	10	10	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ED	0.25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AT	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
FAH	0.85	0.85	0.85	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73

Appendix DR32-C, Table 6
Worker Constants for Cancer Risk
EdgeCore LDC
Revised July 2019

Dose Constants

Year	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
WAF [a]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BR/BW	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230
A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
EF	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Conversion	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001

Risk Constants

Year	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CPF (Diesel PM)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
ASF	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ED	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
AT	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

Notes:

[a] Conservatively assumes construction activities occur 24 hours per day, 7 days per week.