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Appendix 3.3A – Revised Construction Emissions

Appendix 3.3A, Table 1
Construction Emissions Summary and Threshold Comparison
Lightspeed SJC02
August 2021

Lightspeed SJC02 Construction Emissions

Construction	Criteria Pollutant Emissions					
	CO	VOC	NO_X	SO_X	PM_{10} [d]	$PM_{2.5}$ [d]
Average Daily Emissions (lb/day) [e]	70.7	9.71	53.5	0.24	50.0	9.60
Maximum Project Emissions (tons)	13.2	1.82	10.0	0.04	9.36	1.80
BAAQMD Thresholds of Significance (lb/day) [a]	--	54	54	--	82	54
Exceeds Threshold (Y/N)?	N	N	N	N	N	N

Construction	GHG Emissions			
	CO_2	N_2O	CH_4	CO_2e [b]
Average Daily Emissions (metric tons/day) [e]	10.0	3.74E-04	1.12E-04	#REF!
Maximum Project Emissions (metric tons)	3,756	1.40E-01	4.19E-02	#REF!
BAAQMD Thresholds of Significance (metric tons/year) [b, c]	--	--	--	10,000
Exceeds Threshold (Y/N)?	N	N	N	#REF!

Notes:

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

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

[c] BAAQMD does not have a GHG significance threshold for construction so, instead, the operation threshold was used. This threshold is applicable to stationary-source projects based on processes and equipment that would require an Air District permit to operate.

[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
Construction Emissions Summary by Source Category
Lightspeed SJC02
August 2021

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 Construction Equipment																	
Total (lb/month)	658.95	658.95	658.95	1,216.67	1,234.29	1,130.15	1,207.70	1,107.91	812.81	568.96	568.96	457.91	457.91	262.47	163.35	131.23	131.23
Total (lb/day)	29.95	29.95	29.95	55.30	56.10	51.37	54.90	50.36	36.95	25.86	25.86	20.81	20.81	11.93	7.42	5.97	5.97
Onsite Construction Vehicle																	
Total (lb/month)	21.95	21.95	21.95	21.95	3.42	2.58	2.58	2.58	2.58	2.35	0.80	0.80	0.80	0.80	0.80	0.80	0.40
Total (lb/day)	1.00	1.00	1.00	1.00	0.16	0.12	0.12	0.12	0.12	0.11	0.04	0.04	0.04	0.04	0.04	0.04	0.02
Offsite Construction Equipment																	
Total (lb/month)	744.47	744.47	744.47	1,152.33	1,017.57	913.44	823.49	723.70	706.26	467.16	405.00	735.02	539.55	539.55	539.55	495.59	32.12
Total (lb/day)	33.84	33.84	33.84	52.38	46.25	41.52	37.43	32.90	32.10	21.23	18.41	33.41	24.53	24.53	24.53	22.53	1.46
Offsite Construction Vehicle																	
Total (lb/month)	2.57	2.57	2.57	2.57	2.57	2.57	2.57	2.57	5.96	5.52	1.90	1.90	1.90	1.45	1.45	1.45	0.40
Total (lb/day)	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.27	0.25	0.09	0.09	0.09	0.07	0.07	0.07	0.02
Onroad Construction Vehicle																	
Total (lb/month)	123.11	123.11	125.12	129.16	187.72	196.81	202.87	205.90	222.05	233.72	294.66	307.39	311.94	314.67	260.10	197.08	97.95
Total (lb/day)	5.60	5.60	5.69	5.87	8.53	8.95	9.22	9.36	10.09	10.62	13.39	13.97	14.18	14.30	11.82	8.96	4.45
Total Project CO Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**1,551.05**	**1,551.05**	**1,553.07**	**2,522.68**	**2,445.58**	**2,245.55**	**2,239.21**	**2,042.65**	**1,749.66**	**1,277.71**	**1,271.32**	**1,503.02**	**1,312.10**	**1,118.93**	**965.25**	**826.15**	**262.09**
Maximum Daily Emissions (lb/day)	**70.50**	**70.50**	**70.59**	**114.67**	**111.16**	**102.07**	**101.78**	**92.85**	**79.53**	**58.08**	**57.79**	**68.32**	**59.64**	**50.86**	**43.87**	**37.55**	**11.91**
Maximum Project Emissions (tons)	**13.22**																
Average Daily Emissions (lb/day) [a]	**70.69**																

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 Construction Equipment																	
Total (lb/month)	83.92	83.92	83.92	175.35	189.51	178.07	200.52	174.34	105.03	76.77	76.77	72.55	72.55	40.45	23.78	20.23	20.23
Total (lb/day)	3.81	3.81	3.81	7.97	8.61	8.09	9.11	7.92	4.77	3.49	3.49	3.30	3.30	1.84	1.08	0.92	0.92
Onsite Construction Vehicle																	
Total (lb/month)	6.60	6.60	6.60	6.60	0.84	0.58	0.58	0.58	0.58	0.45	0.05	0.05	0.05	0.05	0.05	0.05	0.03
Total (lb/day)	0.30	0.30	0.30	0.30	0.04	0.03	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	85.14	85.14	85.14	160.38	157.21	145.76	125.21	99.03	89.90	57.48	52.33	120.12	92.78	92.78	92.78	83.35	3.56
Total (lb/day)	3.87	3.87	3.87	7.29	7.15	6.63	5.69	4.50	4.09	2.61	2.38	5.46	4.22	4.22	4.22	3.79	0.16
Offsite Construction Vehicle																	
Total (lb/month)	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	1.43	1.11	0.27	0.27	0.27	0.17	0.17	0.17	0.03
Total (lb/day)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.07	0.05	0.01	0.01	0.01	0.01	0.01	0.01	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	5.39	5.39	5.39	5.39	5.39	5.39
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	0.24	0.24	0.24	0.24	0.24	0.24
Onroad Construction Vehicle																	
Total (lb/month)	15.11	15.11	15.15	15.21	16.17	16.31	16.41	16.46	16.73	14.29	15.23	15.42	15.49	15.54	14.69	11.51	9.98
Total (lb/day)	0.69	0.69	0.69	0.69	0.73	0.74	0.75	0.75	0.76	0.65	0.69	0.70	0.70	0.71	0.67	0.52	0.45
Total Project VOC Emissions (Construction Equipment, Paving, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**191.25**	**191.25**	**191.28**	**358.02**	**364.21**	**341.21**	**343.20**	**290.89**	**213.67**	**150.10**	**144.66**	**213.81**	**186.54**	**154.38**	**136.86**	**120.69**	**39.20**
Maximum Daily Emissions (lb/day)	**8.69**	**8.69**	**8.69**	**16.27**	**16.55**	**15.51**	**15.60**	**13.22**	**9.71**	**6.82**	**6.58**	**9.72**	**8.48**	**7.02**	**6.22**	**5.49**	**1.78**
Maximum Project Emissions (tons)	**1.82**																
Average Daily Emissions (lb/day) [a]	**9.71**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
August 2021

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 Construction Equipment																	
Total (lb/month)	1.68	1.68	1.68	2.92	3.20	3.06	3.07	2.70	1.73	1.34	1.34	1.27	1.27	0.83	0.46	0.41	0.41
Total (lb/day)	0.08	0.08	0.08	0.13	0.15	0.14	0.14	0.12	0.08	0.06	0.06	0.06	0.06	0.04	0.02	0.02	0.02
Onsite Construction Vehicle																	
Total (lb/month)	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (lb/day)	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	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	1.57	1.57	1.57	2.61	2.49	2.34	1.99	1.62	1.48	1.00	0.91	2.53	2.03	2.03	2.03	1.85	0.04
Total (lb/day)	0.07	0.07	0.07	0.12	0.11	0.11	0.09	0.07	0.07	0.05	0.04	0.11	0.09	0.09	0.09	0.08	0.00
Offsite Construction Vehicle																	
Total (lb/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	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
Onroad Construction Vehicle																	
Total (lb/month)	1.50	1.50	1.51	1.52	1.68	1.71	1.72	1.73	1.78	1.84	2.03	2.06	2.08	2.09	1.92	1.39	1.09
Total (lb/day)	0.07	0.07	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.06	0.05
Total Project SO_x Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**4.94**	**4.94**	**4.94**	**7.24**	**7.42**	**7.14**	**6.82**	**6.08**	**5.04**	**4.24**	**4.29**	**5.87**	**5.39**	**4.95**	**4.42**	**3.66**	**1.55**
Maximum Daily Emissions (lb/day)	**0.22**	**0.22**	**0.22**	**0.33**	**0.34**	**0.32**	**0.31**	**0.28**	**0.23**	**0.19**	**0.20**	**0.27**	**0.24**	**0.23**	**0.20**	**0.17**	**0.07**
Maximum Project Emissions (tons)	**0.04**																
Average Daily Emissions (lb/day) [a]	**0.24**																

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 Construction Equipment																	
Total (lb/month)	233.27	233.27	233.27	807.90	917.10	836.30	994.65	822.11	375.75	309.96	309.96	300.01	300.01	85.84	66.57	42.92	42.92
Total (lb/day)	10.60	10.60	10.60	36.72	41.69	38.01	45.21	37.37	17.08	14.09	14.09	13.64	13.64	3.90	3.03	1.95	1.95
Onsite Construction Vehicle																	
Total (lb/month)	78.20	78.20	78.20	78.20	9.45	6.33	6.33	6.33	6.33	6.04	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Total (lb/day)	3.55	3.55	3.55	3.55	0.43	0.29	0.29	0.29	0.29	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (lb/month)	270.37	270.37	270.37	777.05	844.14	763.34	598.88	426.34	363.72	262.31	257.78	268.78	178.55	178.55	178.55	96.32	23.65
Total (lb/day)	12.29	12.29	12.29	35.32	38.37	34.70	27.22	19.38	16.53	11.92	11.72	12.22	8.12	8.12	8.12	4.38	1.08
Offsite Construction Vehicle																	
Total (lb/month)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	16.42	15.69	3.21	3.21	3.21	1.64	1.64	1.64	0.03
Total (lb/day)	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.75	0.71	0.15	0.15	0.15	0.07	0.07	0.07	0.00
Onroad Construction Vehicle																	
Total (lb/month)	419.81	419.81	419.96	420.27	424.69	425.37	425.83	426.06	427.28	373.32	377.72	378.64	378.96	379.16	375.22	276.26	269.10
Total (lb/day)	19.08	19.08	19.09	19.10	19.30	19.34	19.36	19.37	19.42	16.97	17.17	17.21	17.23	17.23	17.06	12.56	12.23
Total Project NO_x Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**1,006.65**	**1,006.65**	**1,006.80**	**2,088.41**	**2,200.37**	**2,036.34**	**2,030.69**	**1,685.83**	**1,189.50**	**967.31**	**948.73**	**950.69**	**860.79**	**645.26**	**622.05**	**417.21**	**335.74**
Maximum Daily Emissions (lb/day)	**45.76**	**45.76**	**45.76**	**94.93**	**100.02**	**92.56**	**92.30**	**76.63**	**54.07**	**43.97**	**43.12**	**43.21**	**39.13**	**29.33**	**28.28**	**18.96**	**15.26**
Maximum Project Emissions (tons)	**10.00**																
Average Daily Emissions (lb/day) [a]	**53.47**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
August 2021

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
Demolition Fugitive Dust																	
Total (lb/month)	28.30	0.00	0.00	0.00	0.00	0.00	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)	1.29	0.00	0.00	0.00	0.00	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 Construction Equipment																	
Total (lb/month)	8.36	8.36	8.36	37.35	42.23	36.57	43.99	37.44	21.27	17.60	17.60	14.66	14.66	4.50	3.91	2.25	2.25
Total (lb/day)	0.38	0.38	0.38	1.70	1.92	1.66	2.00	1.70	0.97	0.80	0.80	0.67	0.67	0.20	0.18	0.10	0.10
Onsite Construction Vehicle																	
Total (lb/month)	2.24	2.24	2.24	2.24	0.28	0.19	0.19	0.19	0.19	0.15	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Total (lb/day)	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	2,089.32	2,089.32	2,089.32	2,094.72	393.11	315.76	315.76	315.76	315.76	310.37	155.67	155.67	155.67	155.67	155.67	154.69	77.35
Total (lb/day)	94.97	94.97	94.97	95.21	17.87	14.35	14.35	14.35	14.35	14.11	7.08	7.08	7.08	7.08	7.08	7.03	3.52
Offsite Construction Equipment																	
Total (lb/month)	11.36	11.36	11.36	35.77	38.42	32.76	26.52	19.98	18.36	14.62	14.49	11.65	6.08	6.08	6.08	2.96	1.66
Total (lb/day)	0.52	0.52	0.52	1.63	1.75	1.49	1.21	0.91	0.83	0.66	0.66	0.53	0.28	0.28	0.28	0.13	0.08
Offsite Construction Vehicle																	
Total (lb/month)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.47	0.35	0.09	0.09	0.09	0.06	0.06	0.06	0.01
Total (lb/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Fugitive Dust																	
Total (lb/month)	8.79	309.38	309.38	309.38	309.38	309.38	309.38	309.38	580.09	580.09	270.71	270.71	270.71	232.04	232.04	232.04	77.35
Total (lb/day)	0.00	14.06	14.06	14.06	14.06	14.06	14.06	14.06	26.37	26.37	12.31	12.31	12.31	10.55	10.55	10.55	3.52
Onroad Construction Vehicle																	
Total (lb/month)	72.85	72.85	73.58	75.03	96.10	99.37	101.55	102.64	108.45	121.82	146.15	151.23	153.05	154.14	132.35	100.25	60.68
Total (lb/day)	3.31	3.31	3.34	3.41	4.37	4.52	4.62	4.67	4.93	5.54	6.64	6.87	6.96	7.01	6.02	4.56	2.76
Total Project PM_{10} Emissions (Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**2,221.36**	**2,493.66**	**2,494.39**	**2,554.64**	**879.68**	**794.19**	**797.55**	**785.55**	**1,044.60**	**1,045.01**	**604.74**	**604.04**	**600.29**	**552.51**	**530.13**	**492.28**	**219.30**
Maximum Daily Emissions (lb/day)	**100.57**	**113.35**	**113.38**	**116.12**	**39.99**	**36.10**	**36.25**	**35.71**	**47.48**	**47.50**	**27.49**	**27.46**	**27.29**	**25.11**	**24.10**	**22.38**	**9.97**
Maximum Project Emissions (tons)	**9.36**																
Average Daily Emissions (lb/day) [a]	**50.04**																

$PM_{2.5}$ 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
Demolition Fugitive Dust																	
Total (lb/month)	4.29	0.00	0.00	0.00	0.00	0.00	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)	0.19	0.00	0.00	0.00	0.00	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 Construction Equipment																	
Total (lb/month)	30.96	30.96	30.96	74.68	80.80	74.08	87.21	76.94	48.09	33.28	33.28	29.48	29.48	14.01	9.12	7.01	7.01
Total (lb/day)	1.41	1.41	1.41	3.39	3.67	3.37	3.96	3.50	2.19	1.51	1.51	1.34	1.34	0.64	0.41	0.32	0.32
Onsite Construction Vehicle																	
Total (lb/month)	2.13	2.13	2.13	2.13	0.27	0.18	0.18	0.18	0.18	0.13	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total (lb/day)	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Fugitive Dust																	
Total (lb/month)	208.98	208.98	208.98	209.57	39.40	31.67	31.67	31.67	31.67	31.09	15.62	15.62	15.62	15.62	15.62	15.47	7.73
Total (lb/day)	9.50	9.50	9.50	9.53	1.79	1.44	1.44	1.44	1.44	1.41	0.71	0.71	0.71	0.71	0.71	0.70	0.35
Offsite Construction Equipment																	
Total (lb/month)	36.71	36.71	36.71	70.69	68.43	61.71	54.34	44.07	41.38	26.09	23.27	38.95	27.71	27.71	27.71	24.45	2.12
Total (lb/day)	1.67	1.67	1.67	3.21	3.11	2.80	2.47	2.00	1.88	1.19	1.06	1.77	1.26	1.26	1.26	1.11	0.10
Offsite Construction Vehicle																	
Total (lb/month)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.44	0.32	0.07	0.07	0.07	0.04	0.04	0.04	0.01
Total (lb/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Fugitive Dust																	
Total (lb/month)	30.94	30.94	30.94	30.94	30.94	30.94	30.94	30.94	58.01	58.01	27.07	27.07	27.07	23.20	23.20	23.20	7.73
Total (lb/day)	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	2.64	2.64	1.23	1.23	1.23	1.05	1.05	1.05	0.35
Onroad Construction Vehicle																	
Total (lb/month)	24.72	24.72	24.92	25.31	31.04	31.93	32.52	32.82	34.39	37.24	43.85	45.23	45.72	46.02	40.10	30.83	20.08
Total (lb/day)	1.12	1.12	1.13	1.15	1.41	1.45	1.48	1.49	1.56	1.69	1.99	2.06	2.08	0.00	0.00	0.00	0.91
Total Project $PM_{2.5}$ Emissions (Construction Equipment, Fugitive Dust, and Vehicles)																	
Maximum Monthly Emissions (lb/month)	**338.88**	**334.59**	**334.79**	**413.46**	**251.02**	**230.65**	**236.99**	**216.76**	**214.16**	**186.17**	**143.18**	**156.43**	**145.69**	**126.62**	**115.81**	**101.01**	**44.68**
Maximum Daily Emissions (lb/day)	**15.40**	**15.21**	**15.22**	**18.79**	**11.41**	**10.48**	**10.77**	**9.85**	**9.73**	**8.46**	**6.51**	**7.11**	**6.62**	**3.67**	**3.44**	**3.19**	**2.03**
Maximum Project Emissions (tons)	**1.80**																
Average Daily Emissions (lb/day) [a]	**9.60**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
August 2021

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 Construction Equipment																	
Total (metric tons/month)	57.16	57.16	57.16	108.69	118.84	112.79	110.68	96.54	67.98	49.85	49.85	45.09	45.09	27.65	18.32	13.82	13.82
Total (metric tons/day)	2.60	2.60	2.60	4.94	5.40	5.13	5.03	4.39	3.09	2.27	2.27	2.05	2.05	1.26	0.83	0.63	0.63
Onsite Construction Vehicle																	
Total (metric tons/month)	3.99	3.99	3.99	3.99	0.53	0.38	0.38	0.38	0.38	0.37	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Total (metric tons/day)	0.18	0.18	0.18	0.18	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Construction Equipment																	
Total (metric tons/month)	63.96	63.96	63.96	104.33	97.66	91.61	79.02	64.89	62.31	42.35	38.78	75.74	52.92	52.92	52.92	46.63	4.50
Total (metric tons/day)	2.91	2.91	2.91	4.74	4.44	4.16	3.59	2.95	2.83	1.93	1.76	3.44	2.41	2.41	2.41	2.12	0.20
Offsite Construction Vehicle																	
Total (metric tons/month)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.92	0.90	0.24	0.24	0.24	0.16	0.16	0.16	0.03
Total (metric tons/day)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Onroad Construction Vehicle																	
Total (metric tons/month)	84.24	84.24	84.53	85.13	93.81	95.16	96.06	96.51	98.90	102.77	112.53	114.57	115.30	115.74	107.00	76.24	60.36
Total (metric tons/day)	3.83	3.83	3.84	3.87	4.26	4.33	4.37	4.39	4.50	4.67	5.12	5.21	5.24	0.06	0.06	0.06	2.74
Total Project CO_2 Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**209.68**	**209.68**	**209.98**	**302.47**	**311.17**	**300.27**	**286.46**	**258.64**	**230.49**	**196.25**	**201.47**	**235.70**	**213.61**	**196.52**	**178.46**	**136.91**	**78.74**
Maximum Daily Emissions (metric tons/day)	**9.53**	**9.53**	**9.54**	**13.75**	**14.14**	**13.65**	**13.02**	**11.76**	**10.48**	**8.92**	**9.16**	**10.71**	**9.71**	**3.74**	**3.31**	**2.82**	**3.58**
Maximum Project Emissions (metric tons)	**3,756.47**																
Average Daily Emissions (metric tons/day) [a]	**10.04**																

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 Construction Equipment																	
Total (metric tons/month)	2.74E-03	2.74E-03	2.74E-03	5.22E-03	5.70E-03	5.41E-03	5.31E-03	4.63E-03	3.26E-03	2.39E-03	2.39E-03	2.16E-03	2.16E-03	1.33E-03	8.79E-04	6.63E-04	6.63E-04
Total (metric tons/day)	1.25E-04	1.25E-04	1.25E-04	2.37E-04	2.59E-04	2.46E-04	2.41E-04	2.11E-04	1.48E-04	1.09E-04	1.09E-04	9.84E-05	9.84E-05	6.03E-05	4.00E-05	3.02E-05	3.02E-05
Onsite Construction Vehicle																	
Total (metric tons/month)	9.51E-05	9.51E-05	9.51E-05	9.51E-05	1.16E-05	7.85E-06	7.85E-06	7.85E-06	7.85E-06	7.85E-06	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	1.32E-07
Total (metric tons/day)	4.32E-06	4.32E-06	4.32E-06	4.32E-06	5.29E-07	3.57E-07	3.57E-07	3.57E-07	3.57E-07	3.57E-07	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	6.00E-09
Offsite Construction Equipment																	
Total (metric tons/month)	3.07E-03	3.07E-03	3.07E-03	5.01E-03	4.69E-03	4.40E-03	3.79E-03	3.11E-03	2.99E-03	2.03E-03	1.86E-03	3.63E-03	2.54E-03	2.54E-03	2.54E-03	2.24E-03	2.16E-04
Total (metric tons/day)	1.40E-04	1.40E-04	1.40E-04	2.28E-04	2.13E-04	2.00E-04	1.72E-04	1.42E-04	1.36E-04	9.24E-05	8.46E-05	1.65E-04	1.15E-04	1.15E-04	1.15E-04	1.02E-04	9.81E-06
Offsite Construction Vehicle																	
Total (metric tons/month)	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	1.93E-05	1.93E-05	4.12E-06	4.12E-06	4.12E-06	2.23E-06	2.23E-06	2.23E-06	1.32E-07
Total (metric tons/day)	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	2.74E-07	8.77E-07	8.77E-07	1.87E-07	1.87E-07	1.87E-07	1.01E-07	1.01E-07	1.01E-07	6.00E-09
Onroad Construction Vehicle																	
Total (metric tons/month)	2.24E-03	2.24E-03	2.24E-03	2.24E-03	2.29E-03	2.29E-03	2.30E-03	2.30E-03	2.31E-03	2.34E-03	2.39E-03	2.41E-03	2.41E-03	2.41E-03	2.37E-03	1.79E-03	1.70E-03
Total (metric tons/day)	1.02E-04	1.02E-04	1.02E-04	1.02E-04	1.04E-04	1.04E-04	1.05E-04	1.05E-04	1.05E-04	1.07E-04	1.09E-04	1.09E-04	1.10E-04	1.10E-04	1.08E-04	8.12E-05	7.75E-05
Total Project N_2O Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**8.15E-03**	**8.15E-03**	**8.15E-03**	**1.26E-02**	**1.27E-02**	**1.21E-02**	**1.14E-02**	**1.01E-02**	**8.59E-03**	**6.80E-03**	**6.65E-03**	**8.21E-03**	**7.12E-03**	**6.28E-03**	**5.79E-03**	**4.69E-03**	**2.58E-03**
Maximum Daily Emissions (metric tons/day)	**3.71E-04**	**3.71E-04**	**3.71E-04**	**5.71E-04**	**5.77E-04**	**5.51E-04**	**5.19E-04**	**4.57E-04**	**3.91E-04**	**3.09E-04**	**3.02E-04**	**3.73E-04**	**3.24E-04**	**2.85E-04**	**2.63E-04**	**2.13E-04**	**1.17E-04**
Maximum Project Emissions (metric tons)	**1.40E-01**																
Average Daily Emissions (metric tons/day) [a]	**3.74E-04**																

Construction Emissions Summary by Source Category
Lightspeed SJC02
August 2021

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 Construction Equipment																	
Total (metric tons/month)	7.28E-04	7.28E-04	7.28E-04	1.38E-03	1.51E-03	1.44E-03	1.41E-03	1.23E-03	8.66E-04	6.35E-04	6.35E-04	5.74E-04	5.74E-04	3.52E-04	2.33E-04	1.76E-04	1.76E-04
Total (metric tons/day)	3.31E-05	3.31E-05	3.31E-05	6.29E-05	6.88E-05	6.53E-05	6.41E-05	5.59E-05	3.93E-05	2.89E-05	2.89E-05	2.61E-05	2.61E-05	1.60E-05	1.06E-05	8.00E-06	8.00E-06
Onsite Construction Vehicle																	
Total (metric tons/month)	2.75E-05	2.75E-05	2.75E-05	2.75E-05	4.55E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	7.13E-07
Total (metric tons/day)	2.35E-07	1.25E-06	1.25E-06	1.25E-06	2.07E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	3.24E-08
Offsite Construction Equipment																	
Total (metric tons/month)	8.14E-04	8.14E-04	8.14E-04	1.33E-03	1.24E-03	1.17E-03	1.01E-03	8.26E-04	7.93E-04	5.39E-04	4.94E-04	9.64E-04	6.74E-04	6.74E-04	6.74E-04	5.94E-04	5.73E-05
Total (metric tons/day)	3.70E-05	3.70E-05	3.70E-05	6.04E-05	5.65E-05	5.30E-05	4.57E-05	3.76E-05	3.61E-05	2.45E-05	2.24E-05	4.38E-05	3.06E-05	3.06E-05	3.06E-05	2.70E-05	2.60E-06
Offsite Construction Vehicle																	
Total (metric tons/month)	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	3.65E-06	8.01E-06	8.00E-06	3.03E-06	3.03E-06	3.03E-06	2.40E-06	2.40E-06	2.40E-06	7.13E-07
Total (metric tons/day)	2.85E-08	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	1.66E-07	3.64E-07	3.64E-07	1.38E-07	1.38E-07	1.38E-07	1.09E-07	1.09E-07	1.09E-07	3.24E-08
Onroad Construction Vehicle																	
Total (metric tons/month)	6.41E-04	6.41E-04	6.46E-04	6.56E-04	7.99E-04	8.22E-04	8.37E-04	8.44E-04	8.83E-04	9.82E-04	1.15E-03	1.18E-03	1.19E-03	1.20E-03	1.05E-03	7.93E-04	5.24E-04
Total (metric tons/day)	2.91E-05	2.91E-05	2.94E-05	2.98E-05	3.63E-05	3.73E-05	3.80E-05	3.84E-05	4.02E-05	4.46E-05	5.22E-05	5.37E-05	5.43E-05	5.46E-05	4.79E-05	3.61E-05	2.38E-05
Total Project CH_4 Emissions (Construction Equipment and Vehicles)																	
Maximum Monthly Emissions (metric tons/month)	**2.21E-03**	**2.21E-03**	**2.22E-03**	**3.40E-03**	**3.56E-03**	**3.43E-03**	**3.26E-03**	**2.91E-03**	**2.55E-03**	**2.17E-03**	**2.28E-03**	**2.72E-03**	**2.45E-03**	**2.23E-03**	**1.96E-03**	**1.57E-03**	**7.59E-04**
Maximum Daily Emissions (metric tons/day)	**9.95E-05**	**1.01E-04**	**1.01E-04**	**1.55E-04**	**1.62E-04**	**1.56E-04**	**1.48E-04**	**1.32E-04**	**1.16E-04**	**9.85E-05**	**1.04E-04**	**1.24E-04**	**1.11E-04**	**1.01E-04**	**8.93E-05**	**7.12E-05**	**3.45E-05**
Maximum Project Emissions (metric tons)	**4.19E-02**																
Average Daily Emissions (metric tons/day) [a]	**1.12E-04**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 3
Number of Onsite Construction Equipment and Vehicles
Lightspeed SJC02
August 2021

Number of Onsite Construction Equipment for Lightspeed SJC02 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	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1
Excavator [b]	4	4	4	4	2	2	2	2	2	0	0	0	0	0	0	0	0
Grader	0	0	0	4	4	4	4	2	1	0	0	0	0	0	0	0	0
Cranes [c]	0	0	0	0	0	0	4	4	0	1	1	2	2	0	0	0	0
Backhoe	0	0	0	1	2	2	1	1	1	1	1	0	0	0	0	0	0
Rubber Tired Loader [d]	2	2	2	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 [e]	0	0	0	4	4	2	2	2	2	2	2	0	0	0	0	0	0
Bore/Drill Rigs [f]	0	0	0	0	1	1	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 presented above were provided by the Applicant's engineering contractor.
[b] The Hydraulic Hammer for the Excavator was not included in the above table, or resulting emissions estimates, as they are expected to be hydraulically-powered with negligible emissions.
[c] Numbers presented for Cranes include the equipment counts for the 75 Ton Hydraulic Crane, 35 Ton Hydraulic Crane, and Heavy Lift Lattice Boom Main Crane.
[d] Numbers presented for Rubber Tired Loader include the equipment counts for the Front End Loader.
[e] Numbers presented for Roller include the equipment counts for the Compactor.
[f] Numbers presented for Bore/Drill Rigs include the equipment counts for the Horizontal Directional Drill Equipment.
[g] Numbers presented for Other General Industrial Equipment include the equipment counts for the Light Towers.

Number of Onsite Vehicles for Lightspeed SJC02 Construction

Vehicle Type	Number per Day [a]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Pick-up Truck	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
Dump Truck	25	25	25	25	3	2	2	2	2	2	0	0	0	0	0	0	0

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 4
Onsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Onsite Construction Equipment CO Emissions from Lightspeed SJC02 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	209.55	209.55	209.55	209.55	209.55	209.55	209.55	209.55	209.55	198.24	198.24	198.24	198.24	198.24	99.12	99.12	99.12
Excavator	359.45	359.45	359.45	359.45	179.73	179.73	179.73	179.73	179.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	199.59	199.59	199.59	199.59	99.79	49.90	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	0.00	0.00	232.69	232.69	0.00	54.53	54.53	109.05	109.05	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	62.69	125.38	125.38	62.69	62.69	62.69	62.16	62.16	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	89.95	89.95	89.95	89.95	134.92	134.92	44.97	44.97	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	32.46	64.91	64.91	64.91	64.91	97.37	96.35	96.35	96.35	96.35	64.23	64.23	32.12	32.12
Roller	0.00	0.00	0.00	208.27	208.27	104.13	104.13	104.13	104.13	103.42	103.42	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	57.22	57.22	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	54.72	54.72	54.72	109.44	109.44	109.44	54.28	54.28	54.28	54.28	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**658.95**	**658.95**	**658.95**	**1,216.67**	**1,234.29**	**1,130.15**	**1,207.70**	**1,107.91**	**812.81**	**568.96**	**568.96**	**457.91**	**457.91**	**262.47**	**163.35**	**131.23**	**131.23**
Onsite Total (lb/day) [a]	**29.95**	**29.95**	**29.95**	**55.30**	**56.10**	**51.37**	**54.90**	**50.36**	**36.95**	**25.86**	**25.86**	**20.81**	**20.81**	**11.93**	**7.42**	**5.97**	**5.97**
Onsite Project Total (tons)	**5.71**																

Onsite Construction Equipment VOC Emissions from Lightspeed SJC02 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	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	36.45	33.34	33.34	33.34	33.34	33.34	16.67	16.67	16.67
Excavator	26.91	26.91	26.91	26.91	13.45	13.45	13.45	13.45	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	52.36	52.36	52.36	52.36	26.18	13.09	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	0.00	0.00	49.91	49.91	0.00	11.34	11.34	22.68	22.68	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	5.76	11.52	11.52	5.76	5.76	5.76	5.15	5.15	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	20.56	20.56	20.56	20.56	30.84	30.84	10.28	10.28	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	3.96	7.93	7.93	7.93	7.93	11.89	10.67	10.67	10.67	10.67	7.11	7.11	3.56	3.56
Roller	0.00	0.00	0.00	22.88	22.88	11.44	11.44	11.44	11.44	10.41	10.41	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	7.61	7.61	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	6.47	6.47	6.47	12.94	12.94	12.94	5.86	5.86	5.86	5.86	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**83.92**	**83.92**	**83.92**	**175.35**	**189.51**	**178.07**	**200.52**	**174.34**	**105.03**	**76.77**	**76.77**	**72.55**	**72.55**	**40.45**	**23.78**	**20.23**	**20.23**
Onsite Total (lb/day) [a]	**3.81**	**3.81**	**3.81**	**7.97**	**8.61**	**8.09**	**9.11**	**7.92**	**4.77**	**3.49**	**3.49**	**3.30**	**3.30**	**1.84**	**1.08**	**0.92**	**0.92**
Onsite Project Total (tons)	**0.84**																

Onsite Construction Equipment NO_X Emissions from Lightspeed SJC02 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	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	38.53	19.26	19.26	19.26
Excavator	30.28	30.28	30.28	30.28	15.14	15.14	15.14	15.14	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	345.08	345.08	345.08	345.08	172.54	86.27	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	0.00	0.00	301.51	301.51	0.00	75.38	75.38	150.76	150.76	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	4.53	9.05	9.05	4.53	4.53	4.53	4.53	4.53	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	164.46	164.46	164.46	164.46	246.69	246.69	82.23	82.23	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	23.65	47.31	47.31	47.31	47.31	70.96	70.96	70.96	70.96	70.96	47.31	47.31	23.65	23.65
Roller	0.00	0.00	0.00	161.60	161.60	80.80	80.80	80.80	80.80	80.80	80.80	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	13.93	13.93	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	39.76	39.76	39.76	79.52	79.52	79.52	39.76	39.76	39.76	39.76	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**233.27**	**233.27**	**233.27**	**807.90**	**917.10**	**836.30**	**994.65**	**822.11**	**375.75**	**309.96**	**309.96**	**300.01**	**300.01**	**85.84**	**66.57**	**42.92**	**42.92**
Onsite Total (lb/day) [a]	**10.60**	**10.60**	**10.60**	**36.72**	**41.69**	**38.01**	**45.21**	**37.37**	**17.08**	**14.09**	**14.09**	**13.64**	**13.64**	**3.90**	**3.03**	**1.95**	**1.95**
Onsite Project Total (tons)	**3.46**																

Onsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Onsite Construction Equipment SO_X Emissions from Lightspeed SJC02 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	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.37	0.37	0.37
Excavator	0.58	0.58	0.58	0.58	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	0.74	0.74	0.74	0.74	0.37	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	0.00	0.00	0.65	0.65	0.00	0.16	0.16	0.32	0.32	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.09	0.17	0.17	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.35	0.35	0.35	0.35	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	0.29	0.29	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.27	0.27	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)	**1.68**	**1.68**	**1.68**	**2.92**	**3.20**	**3.06**	**3.07**	**2.70**	**1.73**	**1.34**	**1.34**	**1.27**	**1.27**	**0.83**	**0.46**	**0.41**	**0.41**
Onsite Total (lb/day) [a]	**0.08**	**0.08**	**0.08**	**0.13**	**0.15**	**0.14**	**0.14**	**0.12**	**0.08**	**0.06**	**0.06**	**0.06**	**0.06**	**0.04**	**0.02**	**0.02**	**0.02**
Onsite Project Total (tons)	**0.01**																

Onsite Construction Equipment PM_{10} Emissions from Lightspeed SJC02 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	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	0.59	0.59	0.59
Excavator	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	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	0.00	0.00	11.44	11.44	0.00	2.86	2.86	5.72	5.72	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.14	0.28	0.28	0.14	0.14	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	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	1.66	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	4.97	3.32	3.32	1.66	1.66
Roller	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.43	0.43	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	2.79	2.79	2.79	5.57	5.57	5.57	2.79	2.79	2.79	2.79	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**8.36**	**8.36**	**8.36**	**37.35**	**42.23**	**36.57**	**43.99**	**37.44**	**21.27**	**17.60**	**17.60**	**14.66**	**14.66**	**4.50**	**3.91**	**2.25**	**2.25**
Onsite Total (lb/day) [a]	**0.38**	**0.38**	**0.38**	**1.70**	**1.92**	**1.66**	**2.00**	**1.70**	**0.97**	**0.80**	**0.80**	**0.67**	**0.67**	**0.20**	**0.18**	**0.10**	**0.10**
Onsite Project Total (tons)	**0.16**																

Onsite Construction Equipment $PM_{2.5}$ Emissions from Lightspeed SJC02 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	11.71	11.71	11.71	11.71	11.71	11.71	11.71	11.71	11.71	9.78	9.78	9.78	9.78	9.78	4.89	4.89	4.89
Excavator	11.88	11.88	11.88	11.88	5.94	5.94	5.94	5.94	5.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	20.53	20.53	20.53	20.53	10.26	5.13	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	0.00	0.00	22.48	22.48	0.00	4.97	4.97	9.94	9.94	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	3.36	6.72	6.72	3.36	3.36	3.36	2.82	2.82	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	7.37	7.37	7.37	7.37	11.06	11.06	3.69	3.69	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	2.44	4.89	4.89	4.89	4.89	7.33	6.35	6.35	6.35	6.35	4.23	4.23	2.12	2.12
Roller	0.00	0.00	0.00	13.45	13.45	6.72	6.72	6.72	6.72	5.96	5.96	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	2.57	2.57	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	3.95	3.95	3.95	7.89	7.89	7.89	3.41	3.41	3.41	3.41	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**30.96**	**30.96**	**30.96**	**74.68**	**80.80**	**74.08**	**87.21**	**76.94**	**48.09**	**33.28**	**33.28**	**29.48**	**29.48**	**14.01**	**9.12**	**7.01**	**7.01**
Onsite Total (lb/day) [a]	**1.41**	**1.41**	**1.41**	**3.39**	**3.67**	**3.37**	**3.96**	**3.50**	**2.19**	**1.51**	**1.51**	**1.34**	**1.34**	**0.64**	**0.41**	**0.32**	**0.32**
Onsite Project Total (tons)	**0.35**																

Onsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Onsite Construction Equipment CO_2 Emissions from Lightspeed SJC02 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	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.64	18.65	18.65	18.65	18.65	18.65	9.33	9.33	9.33
Excavator	25.93	25.93	25.93	25.93	12.96	12.96	12.96	12.96	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grader	0.00	0.00	0.00	28.27	28.27	28.27	28.27	14.13	7.07	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	0.00	0.00	19.69	19.69	0.00	4.91	4.91	9.81	9.81	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	3.57	7.14	7.14	3.57	3.57	3.57	3.57	3.57	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	12.59	12.59	12.59	12.59	18.89	18.89	6.30	6.30	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	4.49	8.99	8.99	8.99	8.99	13.48	13.49	13.49	13.49	13.49	8.99	8.99	4.50	4.50
Roller	0.00	0.00	0.00	12.10	12.10	6.05	6.05	6.05	6.05	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00
Bore/Drill Rigs	0.00	0.00	0.00	0.00	8.75	8.75	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	3.11	3.11	3.11	6.21	6.21	6.21	3.13	3.13	3.13	3.13	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**57.16**	**57.16**	**57.16**	**108.69**	**118.84**	**112.79**	**110.68**	**96.54**	**67.98**	**49.85**	**49.85**	**45.09**	**45.09**	**27.65**	**18.32**	**13.82**	**13.82**
Onsite Total (metric tons/day) [a]	**2.60**	**2.60**	**2.60**	**4.94**	**5.40**	**5.13**	**5.03**	**4.39**	**3.09**	**2.27**	**2.27**	**2.05**	**2.05**	**1.26**	**0.83**	**0.63**	**0.63**
Onsite Project Total (metric tons)	**1,050.48**																

Onsite Construction Equipment N_2O Emissions from Lightspeed SJC02 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	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	8.95E-04	4.48E-04	4.48E-04	4.48E-04
Excavator	1.24E-03	1.24E-03	1.24E-03	1.24E-03	6.22E-04	6.22E-04	6.22E-04	6.22E-04	6.22E-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
Grader	0.00E+00	0.00E+00	0.00E+00	1.36E-03	1.36E-03	1.36E-03	1.36E-03	6.78E-04	3.39E-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	0.00E+00	0.00E+00	9.45E-04	9.45E-04	0.00E+00	2.35E-04	2.35E-04	4.71E-04	4.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	1.71E-04	3.42E-04	3.42E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	6.04E-04	6.04E-04	6.04E-04	6.04E-04	9.06E-04	9.06E-04	3.02E-04	3.02E-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	2.16E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	6.47E-04	6.48E-04	6.48E-04	6.48E-04	6.48E-04	4.32E-04	4.32E-04	2.16E-04	2.16E-04
Roller	0.00E+00	0.00E+00	0.00E+00	5.80E-04	5.80E-04	2.90E-04	2.90E-04	2.90E-04	2.90E-04	2.93E-04	2.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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	0.00E+00	0.00E+00	0.00E+00
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	1.49E-04	1.49E-04	1.49E-04	2.98E-04	2.98E-04	2.98E-04	1.50E-04	1.50E-04	1.50E-04	1.50E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**2.74E-03**	**2.74E-03**	**2.74E-03**	**5.22E-03**	**5.70E-03**	**5.41E-03**	**5.31E-03**	**4.63E-03**	**3.26E-03**	**2.39E-03**	**2.39E-03**	**2.16E-03**	**2.16E-03**	**1.33E-03**	**8.79E-04**	**6.63E-04**	**6.63E-04**
Onsite Total (metric tons/day) [a]	**1.25E-04**	**1.25E-04**	**1.25E-04**	**2.37E-04**	**2.59E-04**	**2.46E-04**	**2.41E-04**	**2.11E-04**	**1.48E-04**	**1.09E-04**	**1.09E-04**	**9.84E-05**	**9.84E-05**	**6.03E-05**	**4.00E-05**	**3.02E-05**	**3.02E-05**
Onsite Project Total (metric tons)	**5.04E-02**																

Onsite Construction Equipment CH_4 Emissions from Lightspeed SJC02 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	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	1.19E-04	1.19E-04	1.19E-04
Excavator	3.30E-04	3.30E-04	3.30E-04	3.30E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-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
Grader	0.00E+00	0.00E+00	0.00E+00	3.60E-04	3.60E-04	3.60E-04	3.60E-04	1.80E-04	9.00E-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
Cranes	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-04	2.51E-04	0.00E+00	6.25E-05	6.25E-05	1.25E-04	1.25E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Backhoe	0.00E+00	0.00E+00	0.00E+00	4.54E-05	9.09E-05	9.09E-05	4.54E-05	4.54E-05	4.54E-05	4.54E-05	4.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Rubber Tired Loader	1.60E-04	1.60E-04	1.60E-04	1.60E-04	2.40E-04	2.40E-04	8.02E-05	8.02E-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
Forklift	0.00E+00	0.00E+00	0.00E+00	5.72E-05	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.15E-04	1.15E-04	5.73E-05	5.73E-05
Roller	0.00E+00	0.00E+00	0.00E+00	1.54E-04	1.54E-04	7.70E-05	7.70E-05	7.70E-05	7.70E-05	7.77E-05	7.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.11E-04	1.11E-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
Other General Industrial Equipment	0.00E+00	0.00E+00	0.00E+00	3.95E-05	3.95E-05	3.95E-05	7.91E-05	7.91E-05	7.91E-05	3.98E-05	3.98E-05	3.98E-05	3.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Onsite Total (metric tons/month)	**7.28E-04**	**7.28E-04**	**7.28E-04**	**1.38E-03**	**1.51E-03**	**1.44E-03**	**1.41E-03**	**1.23E-03**	**8.66E-04**	**6.35E-04**	**6.35E-04**	**5.74E-04**	**5.74E-04**	**3.52E-04**	**2.33E-04**	**1.76E-04**	**1.76E-04**
Onsite Total (metric tons/day) [a]	**3.31E-05**	**3.31E-05**	**3.31E-05**	**6.29E-05**	**6.88E-05**	**6.53E-05**	**6.41E-05**	**5.59E-05**	**3.93E-05**	**2.89E-05**	**2.89E-05**	**2.61E-05**	**2.61E-05**	**1.60E-05**	**1.06E-05**	**8.00E-06**	**8.00E-06**
Onsite Project Total (metric tons)	**1.34E-02**																

Notes:
[a] Per information provided by the Applicant's engineering contractor, the days per month are as follows:

Appendix 3.3A, Table 5
Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CO Emissions from Lightspeed SJC02 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	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.02
Onsite Dump Truck	0.81	0.81	0.81	0.81	0.10	0.07	0.07	0.07	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.85**	**0.85**	**0.85**	**0.85**	**0.14**	**0.11**	**0.11**	**0.11**	**0.11**	**0.09**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.02**
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	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.40
Onsite Dump Truck	17.89	17.89	17.89	17.89	2.15	1.43	1.43	1.43	1.43	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**18.78**	**18.78**	**18.78**	**18.78**	**3.04**	**2.32**	**2.32**	**2.32**	**2.32**	**2.09**	**0.80**	**0.80**	**0.80**	**0.80**	**0.80**	**0.80**	**0.40**
Onsite Project Total (tons)	**0.05**																

Onsite Vehicle Exhaust VOC Emissions from Lightspeed SJC02 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	0.29	0.29	0.29	0.29	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.29**	**0.29**	**0.29**	**0.29**	**0.04**	**0.03**	**0.03**	**0.03**	**0.03**	**0.02**	**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	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.03
Onsite Dump Truck	6.30	6.30	6.30	6.30	0.76	0.50	0.50	0.50	0.50	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**6.35**	**6.35**	**6.35**	**6.35**	**0.81**	**0.56**	**0.56**	**0.56**	**0.56**	**0.43**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.03**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 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	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**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**	**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	0.17	0.17	0.17	0.17	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.17**	**0.17**	**0.17**	**0.17**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 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	3.39	3.39	3.39	3.39	0.41	0.27	0.27	0.27	0.27	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**3.39**	**3.39**	**3.39**	**3.39**	**0.41**	**0.27**	**0.27**	**0.27**	**0.27**	**0.26**	**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	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Onsite Dump Truck	74.61	74.61	74.61	74.61	8.95	5.97	5.97	5.97	5.97	5.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**74.69**	**74.69**	**74.69**	**74.69**	**9.03**	**6.05**	**6.05**	**6.05**	**6.05**	**5.77**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.07**	**0.03**
Onsite Project Total (tons)	**0.17**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions from Lightspeed SJC02 Construction

	PM_{10} Emissions (lb/day) [b]																
Vehicle Type	**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	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	PM_{10} Emissions (lb/month) [a, b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	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	0.02	0.02	0.01
Onsite Dump Truck	2.22	2.22	2.22	2.22	0.27	0.18	0.18	0.18	0.18	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**2.23**	**2.23**	**2.23**	**2.23**	**0.28**	**0.19**	**0.19**	**0.19**	**0.19**	**0.15**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.01**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

	$PM_{2.5}$ Emissions (lb/day) [b]																
Vehicle Type	**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	0.10	0.10	0.10	0.10	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	$PM_{2.5}$ Emissions (lb/month) [a, b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onsite Pick-up Truck	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	0.01	0.01	0.01
Onsite Dump Truck	2.12	2.12	2.12	2.12	0.25	0.17	0.17	0.17	0.17	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**2.13**	**2.13**	**2.13**	**2.13**	**0.27**	**0.18**	**0.18**	**0.18**	**0.18**	**0.13**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 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	0.17	0.17	0.17	0.17	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**0.17**	**0.17**	**0.17**	**0.17**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**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	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Onsite Dump Truck	3.65	3.65	3.65	3.65	0.44	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**3.71**	**3.71**	**3.71**	**3.71**	**0.50**	**0.35**	**0.35**	**0.35**	**0.35**	**0.35**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.03**
Onsite Project Total (metric tons)	**17.48**																

Onsite Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 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	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	1.20E-08	6.00E-09
Onsite Dump Truck	4.31E-06	4.31E-06	4.31E-06	4.31E-06	5.17E-07	3.45E-07	3.45E-07	3.45E-07	3.45E-07	3.45E-07	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)	**4.32E-06**	**4.32E-06**	**4.32E-06**	**4.32E-06**	**5.29E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**3.57E-07**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**1.20E-08**	**6.00E-09**
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	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	2.64E-07	1.32E-07
Onsite Dump Truck	9.48E-05	9.48E-05	9.48E-05	9.48E-05	1.14E-05	7.59E-06	7.59E-06	7.59E-06	7.59E-06	7.59E-06	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)	**9.51E-05**	**9.51E-05**	**9.51E-05**	**9.51E-05**	**1.16E-05**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**7.85E-06**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**2.64E-07**	**1.32E-07**
Onsite Project Total (metric tons)	**4.33E-04**																

Onsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 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	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	6.48E-08	3.24E-08
Onsite Dump Truck	9.50E-07	9.50E-07	9.50E-07	9.50E-07	1.14E-07	7.60E-08	7.60E-08	7.60E-08	7.60E-08	7.60E-08	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)	**2.15E-09**	**1.01E-06**	**1.01E-06**	**1.01E-06**	**1.79E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**1.41E-07**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**6.48E-08**	**3.24E-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	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	1.43E-06	7.13E-07
Onsite Dump Truck	2.09E-05	2.09E-05	2.09E-05	2.09E-05	2.51E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	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)	**2.23E-05**	**2.23E-05**	**2.23E-05**	**2.23E-05**	**3.93E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**3.10E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**1.43E-06**	**7.13E-07**
Onsite Project Total (metric tons)	**1.18E-04**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 6
Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CO Emissions from Lightspeed SJC02 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]	0.14	0.14	0.14	0.14	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.14**	**0.14**	**0.14**	**0.14**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**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]	3.17	3.17	3.17	3.17	0.38	0.25	0.25	0.25	0.25	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**3.17**	**3.17**	**3.17**	**3.17**	**0.38**	**0.25**	**0.25**	**0.25**	**0.25**	**0.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Idling VOC Emissions from Lightspeed SJC02 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]	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**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**	**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]	0.24	0.24	0.24	0.24	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**0.24**	**0.24**	**0.24**	**0.24**	**0.03**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling SO_X Emissions from Lightspeed SJC02 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]	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**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**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Onsite Vehicle Idling NO_X Emissions from Lightspeed SJC02 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]	0.16	0.16	0.16	0.16	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**0.16**	**0.16**	**0.16**	**0.16**	**0.02**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**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]	3.51	3.51	3.51	3.51	0.42	0.28	0.28	0.28	0.28	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**3.51**	**3.51**	**3.51**	**3.51**	**0.42**	**0.28**	**0.28**	**0.28**	**0.28**	**0.27**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.01**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 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 Lightspeed SJC02 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**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CO_2 Emissions from Lightspeed SJC02 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]	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	0.00	0.00	0.00	0.00
Onsite Total (metric tons/day)	**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**	**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]	0.28	0.28	0.28	0.28	0.03	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (metric tons/month)	**0.28**	**0.28**	**0.28**	**0.28**	**0.03**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Onsite Project Total (metric tons)	**1.27**																

Onsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onsite Vehicle Idling CH_4 Emissions from Lightspeed SJC02 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]	2.33E-07	2.33E-07	2.33E-07	2.33E-07	2.80E-08	1.87E-08	1.87E-08	1.87E-08	1.87E-08	1.85E-08	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)	**2.33E-07**	**2.33E-07**	**2.33E-07**	**2.33E-07**	**2.80E-08**	**1.87E-08**	**1.87E-08**	**1.87E-08**	**1.87E-08**	**1.85E-08**	**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]	5.13E-06	5.13E-06	5.13E-06	5.13E-06	6.16E-07	4.10E-07	4.10E-07	4.10E-07	4.10E-07	4.08E-07	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)	**5.13E-06**	**5.13E-06**	**5.13E-06**	**5.13E-06**	**6.16E-07**	**4.10E-07**	**4.10E-07**	**4.10E-07**	**4.10E-07**	**4.08E-07**	**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)	**2.32E-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 for construction in the data above was provided by the Applicant's engineering contractor, as presented in Appendix 3.3A, Table 11.

Appendix 3.3A, Table 7
Number of Offsite Construction Equipment and Vehicles
Lightspeed SJC02
August 2021

Number of Offsite Construction Equipment for Lightspeed SJC02 Construction

Offsite 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	1	1	1	1	1	1	1	1	1	0	0	0	0	0
Concrete Truck	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	5	0
Excavator [b]	4	4	4	4	2	2	2	2	2	0	0	0	0	0	0	0	0
Grader	0	0	0	4	4	4	4	2	1	0	0	0	0	0	0	0	0
Backhoe	2	2	2	2	2	2	2	2	2	2	1	0	0	0	0	0	0
Rubber Tired Loader [c]	2	2	2	2	3	3	1	1	1	1	1	1	1	1	1	0	0
Forklift	2	2	2	2	2	2	2	2	3	3	3	3	0	0	0	0	1
Roller [d]	0	0	0	4	4	2	2	2	2	2	2	0	0	0	0	0	0
Bore/Drill Rigs [e]	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0

Notes:
[a] Equipment counts presented above were provided by the Applicant's engineering contractor.
[b] The Hydraulic Hammer for the Excavator was not included in the above table, or resulting emissions estimates, as they are expected to be hydraulically-powered with negligible emissions.
[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 Bore/Drill Rigs include the equipment counts for the Horizontal Directional Drill Equipment.

Number of Offsite Vehicles for Lightspeed SJC02 Construction

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

Notes:
[a] Vehicle counts presented above were provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 8
Offsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Offsite Construction Equipment CO Emissions from Lightspeed SJC02 Construction

Offsite Equipment	CO Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	104.78	104.78	104.78	104.78	104.78	104.78	104.78	104.78	104.78	99.12	99.12	99.12	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	495.59	495.59	495.59	495.59	495.59	0.00
Grader	359.45	359.45	359.45	359.45	179.73	179.73	179.73	179.73	179.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	199.59	199.59	199.59	199.59	99.79	49.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	125.38	125.38	125.38	125.38	125.38	125.38	125.38	125.38	125.38	124.31	62.16	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	89.95	89.95	89.95	89.95	134.92	134.92	44.97	44.97	44.97	43.96	43.96	43.96	43.96	43.96	43.96	0.00	0.00
Roller	64.91	64.91	64.91	64.91	64.91	64.91	64.91	64.91	97.37	96.35	96.35	96.35	0.00	0.00	0.00	0.00	32.12
Bore/Drill Rigs	0.00	0.00	0.00	208.27	208.27	104.13	104.13	104.13	104.13	103.42	103.42	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**744.47**	**744.47**	**744.47**	**1,152.33**	**1,017.57**	**913.44**	**823.49**	**723.70**	**706.26**	**467.16**	**405.00**	**735.02**	**539.55**	**539.55**	**539.55**	**495.59**	**32.12**
Offsite Total (lb/day) [a]	**33.84**	**33.84**	**33.84**	**52.38**	**46.25**	**41.52**	**37.43**	**32.90**	**32.10**	**21.23**	**18.41**	**33.41**	**24.53**	**24.53**	**24.53**	**22.53**	**1.46**
Offsite Project Total (tons)	**5.66**																

Offsite Construction Equipment VOC Emissions from Lightspeed SJC02 Construction

Offsite Equipment	VOC Emissions (lb/month)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Water Truck	18.23	18.23	18.23	18.23	18.23	18.23	18.23	18.23	18.23	16.67	16.67	16.67	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	83.35	83.35	83.35	83.35	83.35	0.00
Grader	26.91	26.91	26.91	26.91	13.45	13.45	13.45	13.45	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	52.36	52.36	52.36	52.36	26.18	13.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	11.52	11.52	11.52	11.52	11.52	11.52	11.52	11.52	11.52	10.30	5.15	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	20.56	20.56	20.56	20.56	30.84	30.84	10.28	10.28	10.28	9.43	9.43	9.43	9.43	9.43	9.43	0.00	0.00
Roller	7.93	7.93	7.93	7.93	7.93	7.93	7.93	7.93	11.89	10.67	10.67	10.67	0.00	0.00	0.00	0.00	3.56
Bore/Drill Rigs	0.00	0.00	0.00	22.88	22.88	11.44	11.44	11.44	11.44	10.41	10.41	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**85.14**	**85.14**	**85.14**	**160.38**	**157.21**	**145.76**	**125.21**	**99.03**	**89.90**	**57.48**	**52.33**	**120.12**	**92.78**	**92.78**	**92.78**	**83.35**	**3.56**
Offsite Total (lb/day) [a]	**3.87**	**3.87**	**3.87**	**7.29**	**7.15**	**6.63**	**5.69**	**4.50**	**4.09**	**2.61**	**2.38**	**5.46**	**4.22**	**4.22**	**4.22**	**3.79**	**0.16**
Offsite Project Total (tons)	**0.81**																

Offsite Construction Equipment NO_X Emissions from Lightspeed SJC02 Construction

Offsite 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	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	19.26	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.32	96.32	96.32	96.32	96.32	0.00
Grader	30.28	30.28	30.28	30.28	15.14	15.14	15.14	15.14	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	345.08	345.08	345.08	345.08	172.54	86.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	9.05	4.53	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	164.46	164.46	164.46	164.46	246.69	246.69	82.23	82.23	82.23	82.23	82.23	82.23	82.23	82.23	82.23	0.00	0.00
Roller	47.31	47.31	47.31	47.31	47.31	47.31	47.31	47.31	70.96	70.96	70.96	70.96	0.00	0.00	0.00	0.00	23.65
Bore/Drill Rigs	0.00	0.00	0.00	161.60	161.60	80.80	80.80	80.80	80.80	80.80	80.80	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**270.37**	**270.37**	**270.37**	**777.05**	**844.14**	**763.34**	**598.88**	**426.34**	**363.72**	**262.31**	**257.78**	**268.78**	**178.55**	**178.55**	**178.55**	**96.32**	**23.65**
Offsite Total (lb/day) [a]	**12.29**	**12.29**	**12.29**	**35.32**	**38.37**	**34.70**	**27.22**	**19.38**	**16.53**	**11.92**	**11.72**	**12.22**	**8.12**	**8.12**	**8.12**	**4.38**	**1.08**
Offsite Project Total (tons)	**3.01**																

Offsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Offsite Construction Equipment SO_X Emissions from Lightspeed SJC02 Construction

Offsite 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	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	1.85	1.85	1.85	1.85	0.00
Grader	0.58	0.58	0.58	0.58	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	0.74	0.74	0.74	0.74	0.37	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.09	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	0.35	0.35	0.35	0.35	0.53	0.53	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.00
Roller	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.13	0.13	0.13	0.13	0.00	0.00	0.00	0.00	0.04
Bore/Drill Rigs	0.00	0.00	0.00	0.29	0.29	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**1.57**	**1.57**	**1.57**	**2.61**	**2.49**	**2.34**	**1.99**	**1.62**	**1.48**	**1.00**	**0.91**	**2.53**	**2.03**	**2.03**	**2.03**	**1.85**	**0.04**
Offsite Total (lb/day) [a]	**0.07**	**0.07**	**0.07**	**0.12**	**0.11**	**0.11**	**0.09**	**0.07**	**0.07**	**0.05**	**0.04**	**0.11**	**0.09**	**0.09**	**0.09**	**0.08**	**0.00**
Offsite Project Total (tons)	**0.01**																

Offsite Construction Equipment PM_{10} Emissions from Lightspeed SJC02 Construction

Offsite 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	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	2.96	2.96	2.96	2.96	0.00
Grader	0.93	0.93	0.93	0.93	0.47	0.47	0.47	0.47	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	13.09	13.09	13.09	13.09	6.54	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.28	0.14	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	6.24	6.24	6.24	6.24	9.36	9.36	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	0.00	0.00
Roller	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	4.97	4.97	4.97	4.97	0.00	0.00	0.00	0.00	1.66
Bore/Drill Rigs	0.00	0.00	0.00	11.32	11.32	5.66	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**11.36**	**11.36**	**11.36**	**35.77**	**38.42**	**32.76**	**26.52**	**19.98**	**18.36**	**14.62**	**14.49**	**11.65**	**6.08**	**6.08**	**6.08**	**2.96**	**1.66**
Offsite Total (lb/day) [a]	**0.52**	**0.52**	**0.52**	**1.63**	**1.75**	**1.49**	**1.21**	**0.91**	**0.83**	**0.66**	**0.66**	**0.53**	**0.28**	**0.28**	**0.28**	**0.13**	**0.08**
Offsite Project Total (tons)	**0.13**																

Offsite Construction Equipment $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Offsite 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	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	5.85	4.89	4.89	4.89	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.45	24.45	24.45	24.45	24.45	0.00
Grader	11.88	11.88	11.88	11.88	5.94	5.94	5.94	5.94	5.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	20.53	20.53	20.53	20.53	10.26	5.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	6.72	5.64	2.82	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	7.37	7.37	7.37	7.37	11.06	11.06	3.69	3.69	3.69	3.26	3.26	3.26	3.26	3.26	3.26	0.00	0.00
Roller	4.89	4.89	4.89	4.89	4.89	4.89	4.89	4.89	7.33	6.35	6.35	6.35	0.00	0.00	0.00	0.00	2.12
Bore/Drill Rigs	0.00	0.00	0.00	13.45	13.45	6.72	6.72	6.72	6.72	5.96	5.96	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**36.71**	**36.71**	**36.71**	**70.69**	**68.43**	**61.71**	**54.34**	**44.07**	**41.38**	**26.09**	**23.27**	**38.95**	**27.71**	**27.71**	**27.71**	**24.45**	**2.12**
Offsite Total (lb/day) [a]	**1.67**	**1.67**	**1.67**	**3.21**	**3.11**	**2.80**	**2.47**	**2.00**	**1.88**	**1.19**	**1.06**	**1.77**	**1.26**	**1.26**	**1.26**	**1.11**	**0.10**
Offsite Project Total (tons)	**0.32**																

Offsite Construction Equipment Emissions
Lightspeed SJC02
August 2021

Offsite Construction Equipment CO_2 Emissions from Lightspeed SJC02 Construction

Offsite 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	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.32	9.33	9.33	9.33	0.00	0.00	0.00	0.00	0.00
Excavator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	46.63	46.63	46.63	46.63	46.63	0.00
Grader	25.93	25.93	25.93	25.93	12.96	12.96	12.96	12.96	12.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Backhoe	0.00	0.00	0.00	28.27	28.27	28.27	28.27	14.13	7.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rubber Tired Loader	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	7.14	3.57	0.00	0.00	0.00	0.00	0.00	0.00
Forklift	12.59	12.59	12.59	12.59	18.89	18.89	6.30	6.30	6.30	6.29	6.29	6.29	6.29	6.29	6.29	0.00	0.00
Roller	8.99	8.99	8.99	8.99	8.99	8.99	8.99	8.99	13.48	13.49	13.49	13.49	0.00	0.00	0.00	0.00	4.50
Bore/Drill Rigs	0.00	0.00	0.00	12.10	12.10	6.05	6.05	6.05	6.05	6.10	6.10	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (metric tons/month)	**63.96**	**63.96**	**63.96**	**104.33**	**97.66**	**91.61**	**79.02**	**64.89**	**62.31**	**42.35**	**38.78**	**75.74**	**52.92**	**52.92**	**52.92**	**46.63**	**4.50**
Offsite Total (metric tons/day) [a]	**2.91**	**2.91**	**2.91**	**4.74**	**4.44**	**4.16**	**3.59**	**2.95**	**2.83**	**1.93**	**1.76**	**3.44**	**2.41**	**2.41**	**2.41**	**2.12**	**0.20**
Offsite Project Total (metric tons)	**1,058.47**																

Offsite Construction Equipment N_2O Emissions from Lightspeed SJC02 Construction

Offsite 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	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.47E-04	4.48E-04	4.48E-04	4.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Excavator	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	2.24E-03	2.24E-03	2.24E-03	2.24E-03	2.24E-03	0.00E+00
Grader	1.24E-03	1.24E-03	1.24E-03	1.24E-03	6.22E-04	6.22E-04	6.22E-04	6.22E-04	6.22E-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
Backhoe	0.00E+00	0.00E+00	0.00E+00	1.36E-03	1.36E-03	1.36E-03	1.36E-03	6.78E-04	3.39E-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
Rubber Tired Loader	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.42E-04	3.43E-04	1.71E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	6.04E-04	6.04E-04	6.04E-04	6.04E-04	9.06E-04	9.06E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	3.02E-04	0.00E+00	0.00E+00
Roller	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	6.47E-04	6.48E-04	6.48E-04	6.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-04
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	5.80E-04	5.80E-04	2.90E-04	2.90E-04	2.90E-04	2.90E-04	2.93E-04	2.93E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Total (metric tons/month)	**3.07E-03**	**3.07E-03**	**3.07E-03**	**5.01E-03**	**4.69E-03**	**4.40E-03**	**3.79E-03**	**3.11E-03**	**2.99E-03**	**2.03E-03**	**1.86E-03**	**3.63E-03**	**2.54E-03**	**2.54E-03**	**2.54E-03**	**2.24E-03**	**2.16E-04**
Offsite Total (metric tons/day) [a]	**1.40E-04**	**1.40E-04**	**1.40E-04**	**2.28E-04**	**2.13E-04**	**2.00E-04**	**1.72E-04**	**1.42E-04**	**1.36E-04**	**9.24E-05**	**8.46E-05**	**1.65E-04**	**1.15E-04**	**1.15E-04**	**1.15E-04**	**1.02E-04**	**9.81E-06**
Offsite Project Total (metric tons)	**5.08E-02**																

Offsite Construction Equipment CH_4 Emissions from Lightspeed SJC02 Construction

Offsite 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	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Excavator	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	5.94E-04	5.94E-04	5.94E-04	5.94E-04	5.94E-04	0.00E+00
Grader	3.30E-04	3.30E-04	3.30E-04	3.30E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-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
Backhoe	0.00E+00	0.00E+00	0.00E+00	3.60E-04	3.60E-04	3.60E-04	3.60E-04	1.80E-04	9.00E-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
Rubber Tired Loader	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	9.09E-05	4.54E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Forklift	1.60E-04	1.60E-04	1.60E-04	1.60E-04	2.40E-04	2.40E-04	8.02E-05	8.02E-05	8.02E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	8.01E-05	0.00E+00	0.00E+00
Roller	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.73E-05
Bore/Drill Rigs	0.00E+00	0.00E+00	0.00E+00	1.54E-04	1.54E-04	7.70E-05	7.70E-05	7.70E-05	7.70E-05	7.77E-05	7.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Offsite Total (metric tons/month)	**8.14E-04**	**8.14E-04**	**8.14E-04**	**1.33E-03**	**1.24E-03**	**1.17E-03**	**1.01E-03**	**8.26E-04**	**7.93E-04**	**5.39E-04**	**4.94E-04**	**9.64E-04**	**6.74E-04**	**6.74E-04**	**6.74E-04**	**5.94E-04**	**5.73E-05**
Offsite Total (metric tons/day) [a]	**3.70E-05**	**3.70E-05**	**3.70E-05**	**6.04E-05**	**5.65E-05**	**5.30E-05**	**4.57E-05**	**3.76E-05**	**3.61E-05**	**2.45E-05**	**2.24E-05**	**4.38E-05**	**3.06E-05**	**3.06E-05**	**3.06E-05**	**2.70E-05**	**2.60E-06**
Offsite Project Total (metric tons)	**1.35E-02**																

Notes:
[a] Per information provided by the Applicant's engineering contractor, the days per month are as follows: 22

Appendix 3.3A, Table 9
Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CO Emissions from Lightspeed SJC02 Construction

	CO Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.02
Offsite Dump Truck	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.16	0.15	0.03	0.03	0.03	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.21**	**0.19**	**0.07**	**0.07**	**0.07**	**0.06**	**0.06**	**0.06**	**0.02**
	CO Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.40
Offsite Dump Truck	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	3.58	3.23	0.65	0.65	0.65	0.32	0.32	0.32	0.00
Offsite Total (lb/month)	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**2.19**	**4.69**	**4.23**	**1.64**	**1.64**	**1.64**	**1.32**	**1.32**	**1.32**	**0.40**
Offsite Project Total (tons)	**0.02**																

Offsite Vehicle Exhaust VOC Emissions from Lightspeed SJC02 Construction

	VOC Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite 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
Offsite Dump Truck	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.04	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.05**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
	VOC Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.03
Offsite Dump Truck	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	1.26	0.95	0.19	0.19	0.19	0.09	0.09	0.09	0.00
Offsite Total (lb/month)	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**0.45**	**1.33**	**1.01**	**0.25**	**0.25**	**0.25**	**0.16**	**0.16**	**0.16**	**0.03**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 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 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
Offsite 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
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) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite 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
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (lb/month)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.04**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 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 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
Offsite Dump Truck	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.68	0.65	0.13	0.13	0.13	0.06	0.06	0.06	0.00
Offsite Total (lb/day)	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.21**	**0.68**	**0.65**	**0.13**	**0.13**	**0.13**	**0.07**	**0.07**	**0.07**	**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**
Offsite Pick-up Truck	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.03
Offsite Dump Truck	4.48	4.48	4.48	4.48	4.48	4.48	4.48	4.48	14.92	14.25	2.85	2.85	2.85	1.43	1.43	1.43	0.00
Offsite Total (lb/month)	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**4.57**	**15.02**	**14.33**	**2.93**	**2.93**	**2.93**	**1.51**	**1.51**	**1.51**	**0.03**
Offsite Project Total (tons)	**0.04**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust and Vehicle Wear PM_{10} Emissions from Lightspeed SJC02 Construction

Vehicle Type	PM_{10} Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite 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
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**PM_{10} Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01
Offsite Dump Truck	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.44	0.32	0.06	0.06	0.06	0.03	0.03	0.03	0.00
Offsite Total (lb/month)	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.46**	**0.35**	**0.09**	**0.09**	**0.09**	**0.06**	**0.06**	**0.06**	**0.01**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust and Vehicle Wear $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Vehicle Type	$PM_{2.5}$ Emissions (lb/day) [b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite 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
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.02**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Vehicle Type	**$PM_{2.5}$ Emissions (lb/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Offsite Pick-up Truck	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	0.01	0.01	0.01
Offsite Dump Truck	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.42	0.30	0.06	0.06	0.06	0.03	0.03	0.03	0.00
Offsite Total (lb/month)	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.14**	**0.44**	**0.32**	**0.07**	**0.07**	**0.07**	**0.04**	**0.04**	**0.04**	**0.01**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 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 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
Offsite Dump Truck	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Offsite Total (metric tons/day)	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.04**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**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
Offsite Pick-up Truck	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.03
Offsite Dump Truck	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.73	0.72	0.14	0.14	0.14	0.07	0.07	0.07	0.00
Offsite Total (metric tons/month)	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.30**	**0.81**	**0.79**	**0.22**	**0.22**	**0.22**	**0.15**	**0.15**	**0.15**	**0.03**
Offsite Project Total (metric tons)	**5.08**																

Offsite Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 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 Pick-up Truck	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	1.50E-08	6.00E-09
Offsite Dump Truck	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	2.59E-07	8.62E-07	8.62E-07	1.72E-07	1.72E-07	1.72E-07	8.62E-08	8.62E-08	8.62E-08	0.00E+00
Offsite Total (metric tons/day)	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**2.74E-07**	**8.77E-07**	**8.77E-07**	**1.87E-07**	**1.87E-07**	**1.87E-07**	**1.01E-07**	**1.01E-07**	**1.01E-07**	**6.00E-09**
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
Offsite Pick-up Truck	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	3.30E-07	1.32E-07
Offsite Dump Truck	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	5.69E-06	1.90E-05	1.90E-05	3.79E-06	3.79E-06	3.79E-06	1.90E-06	1.90E-06	1.90E-06	0.00E+00
Offsite Total (metric tons/month)	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**6.02E-06**	**1.93E-05**	**1.93E-05**	**4.12E-06**	**4.12E-06**	**4.12E-06**	**2.23E-06**	**2.23E-06**	**2.23E-06**	**1.32E-07**
Offsite Project Total (metric tons)	**1.06E-04**																

Offsite Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 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 Pick-up Truck	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	8.10E-08	3.24E-08
Offsite Dump Truck	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	5.70E-08	1.90E-07	1.90E-07	3.80E-08	3.80E-08	3.80E-08	1.90E-08	1.90E-08	1.90E-08	0.00E+00
Offsite Total (metric tons/day)	**5.04E-10**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**1.38E-07**	**2.71E-07**	**2.71E-07**	**1.19E-07**	**1.19E-07**	**1.19E-07**	**1.00E-07**	**1.00E-07**	**1.00E-07**	**3.24E-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
Offsite Pick-up Truck	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	1.78E-06	7.13E-07
Offsite Dump Truck	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	4.18E-06	4.18E-06	8.36E-07	8.36E-07	8.36E-07	4.18E-07	4.18E-07	4.18E-07	0.00E+00
Offsite Total (metric tons/month)	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**3.04E-06**	**5.96E-06**	**5.96E-06**	**2.62E-06**	**2.62E-06**	**2.62E-06**	**2.20E-06**	**2.20E-06**	**2.20E-06**	**7.13E-07**
Offsite Project Total (metric tons)	**5.14E-05**																

Notes:
[a] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 10
Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CO Emissions from Lightspeed SJC02 Construction

	CO Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.06**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**
	CO Emissions (lb/month) [b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	1.27	1.29	0.26	0.26	0.26	0.13	0.13	0.13	0.00
Offsite Total (lb/month)	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**0.38**	**1.27**	**1.29**	**0.26**	**0.26**	**0.26**	**0.13**	**0.13**	**0.13**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling VOC Emissions from Lightspeed SJC02 Construction

	VOC Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite 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
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**
	VOC Emissions (lb/month) [b]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Dump Truck [a]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.10	0.02	0.02	0.02	0.01	0.01	0.01	0.00
Offsite Total (lb/month)	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.10**	**0.10**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling SO_X Emissions from Lightspeed SJC02 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 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
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 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
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 NO_X Emissions from Lightspeed SJC02 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 Dump Truck [a]	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Offsite Total (lb/day)	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.02**	**0.06**	**0.06**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**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
Offsite Dump Truck [a]	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	1.41	1.36	0.27	0.27	0.27	0.14	0.14	0.14	0.00
Offsite Total (lb/month)	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**0.42**	**1.41**	**1.36**	**0.27**	**0.27**	**0.27**	**0.14**	**0.14**	**0.14**	**0.00**
Offsite Project Total (tons)	**0.00**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 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 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
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 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
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 Lightspeed SJC02 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 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
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 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
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 Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CO_2 Emissions from Lightspeed SJC02 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 Dump Truck [a]	0.00	0.00	0.00	0.00	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
Offsite Total (metric tons/day)	**0.00**	**0.00**	**0.00**	**0.00**	**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**
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 Dump Truck [a]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.11	0.11	0.02	0.02	0.02	0.01	0.01	0.01	0.00
Offsite Total (metric tons/month)	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.11**	**0.11**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.00**
Offsite Project Total (metric tons)	**0.59**																

Offsite Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Offsite Vehicle Idling CH_4 Emissions from Lightspeed SJC02 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 Dump Truck [a]	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	2.80E-08	9.33E-08	9.27E-08	1.85E-08	1.85E-08	1.85E-08	9.27E-09	9.27E-09	9.27E-09	0.00E+00
Offsite Total (metric tons/day)	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**2.80E-08**	**9.33E-08**	**9.27E-08**	**1.85E-08**	**1.85E-08**	**1.85E-08**	**9.27E-09**	**9.27E-09**	**9.27E-09**	**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
Offsite Dump Truck [a]	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	6.16E-07	2.05E-06	2.04E-06	4.08E-07	4.08E-07	4.08E-07	2.04E-07	2.04E-07	2.04E-07	0.00E+00
Offsite Total (metric tons/month)	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**6.16E-07**	**2.05E-06**	**2.04E-06**	**4.08E-07**	**4.08E-07**	**4.08E-07**	**2.04E-07**	**2.04E-07**	**2.04E-07**	**0.00E+00**
Offsite Project Total (metric tons)	**1.09E-05**																

Notes:
[a] It is estimated that each Offsite dump truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month for construction in the data above was provided by the Applicant's engineering contractor, as presented in Appendix 3.3A, Table 11.

Appendix 3.3A, Table 11
Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

Grading and Truck Dumping/Loading Activity Levels for Lightspeed SJC02 Construction

Source	Monthly Activity Levels																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Graded Area (acres) [a]	0	0	0	11	11	11	11	11	11	0	0	0	0	0	0	0	0
Soil Imported/Exported (cubic yards) [b]	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	19,333	0	0

Notes:
[a] Estimated the entire site to be graded due to the need for laydown/storage; assumed this disturbance was equally distributed amongst the months in which graders are utilized.
[b] Soil Imported/Exported provided by the Applicant's engineering contractor. Assumed the imports/exports and associated loading/dumping activity are equally distributed amongst the months in which front end loaders are utilized either onsite or offsite.

Demolition Activity Levels

Source	Monthly Activity Levels																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Debris Generated from Mechanical Dismemberment (tons) [a]	2,938.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:
[a] Debris generated from demolition of existing buildings was estimated based on information provided by the Applicant's engineering contractor. A building, barn, two houses, and a garage are anticipated to be demolished during the first month of the construction time frame. Only materials generated from demolition that may generate fugitive dust were included. The demolition quantities were determined as follows:

	Volume of Building Based on Dimensions		Estimated Building Waste Volume*		Estimated Weight of Demolition Debris*	
Rust Colored Building	84,150	cubic feet	21,038	cubic feet	389.19	tons
Barn	448,950	cubic feet	112,238	cubic feet	2076.39	tons
House 1	28,080	cubic feet	7,020	cubic feet	129.87	tons
House 2	62,500	cubic feet	15,625	cubic feet	289.06	tons
Garage	11,760	cubic feet	2,940	cubic feet	54.39	tons
Total	635,440	cubic feet	158,860	cubic feet	2,939	tons

* Estimated building waste volume and weight of demolition debris using the following conversion factors, as presented in Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):

1 cubic foot of Building Volume =	0.25	cubic feet of Building Waste Volume
1 cubic yard of Building Waste Volume =	0.5	ton of Building Waste Weight

Onsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During Lightspeed SJC02 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	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	7.03	3.52
Onsite Dump Truck	87.89	87.89	87.89	87.89	10.55	7.03	7.03	7.03	7.03	7.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**94.92**	**94.92**	**94.92**	**94.92**	**17.58**	**14.06**	**14.06**	**14.06**	**14.06**	**14.06**	**7.03**	**7.03**	**7.03**	**7.03**	**7.03**	**7.03**	**3.52**
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	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	154.69	77.35
Onsite Dump Truck	1,933.65	1,933.65	1,933.65	1,933.65	232.04	154.69	154.69	154.69	154.69	154.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**2,088.34**	**2,088.34**	**2,088.34**	**2,088.34**	**386.73**	**309.38**	**309.38**	**309.38**	**309.38**	**309.38**	**154.69**	**154.69**	**154.69**	**154.69**	**154.69**	**154.69**	**77.35**
Onsite Project Total (tons)	**5.65**																

Notes:
[a] Emissions based on the controlled unpaved road emission factor for PM_{10}.

Onsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During Lightspeed SJC02 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	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.35
Onsite Dump Truck	8.79	8.79	8.79	8.79	1.05	0.70	0.70	0.70	0.70	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/day)	**9.49**	**9.49**	**9.49**	**9.49**	**1.76**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**0.70**	**0.70**	**0.70**	**0.70**	**0.70**	**0.70**	**0.35**
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	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	15.47	7.73
Onsite Dump Truck	193.36	193.36	193.36	193.36	23.20	15.47	15.47	15.47	15.47	15.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite Total (lb/month)	**208.83**	**208.83**	**208.83**	**208.83**	**38.67**	**30.94**	**30.94**	**30.94**	**30.94**	**30.94**	**15.47**	**15.47**	**15.47**	**15.47**	**15.47**	**15.47**	**7.73**
Onsite Project Total (tons)	**0.56**																

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

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

Offsite Vehicle Fugitive PM_{10} Emissions from Unpaved Roads During Lightspeed SJC02 Construction

	Fugitive PM_{10} Emissions (lb/day) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	8.79	3.52
Offsite Dump Truck	5.27	5.27	5.27	5.27	5.27	5.27	5.27	5.27	17.58	17.58	3.52	3.52	3.52	1.76	1.76	1.76	0.00
Onsite Total (lb/day)	**14.06**	**14.06**	**14.06**	**14.06**	**14.06**	**14.06**	**14.06**	**14.06**	**26.37**	**26.37**	**12.31**	**12.31**	**12.31**	**10.55**	**10.55**	**10.55**	**3.52**
	Fugitive PM_{10} Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	193.36	77.35
Offsite Dump Truck	116.02	116.02	116.02	116.02	116.02	116.02	116.02	116.02	386.73	386.73	77.35	77.35	77.35	38.67	38.67	38.67	0.00
Onsite Total (lb/month)	**309.38**	**309.38**	**309.38**	**309.38**	**309.38**	**309.38**	**309.38**	**309.38**	**580.09**	**580.09**	**270.71**	**270.71**	**270.71**	**232.04**	**232.04**	**232.04**	**77.35**
Onsite Project Total (tons)	**2.61**																

Notes:
[a] Emissions based on the controlled unpaved road emission factor for PM_{10}.

Offsite Vehicle Fugitive $PM_{2.5}$ Emissions from Unpaved Roads During Lightspeed SJC02 Construction

	Fugitive $PM_{2.5}$ Emissions (lb/day) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.35
Offsite Dump Truck	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	1.76	1.76	0.35	0.35	0.35	0.18	0.18	0.18	0.00
Onsite Total (lb/day)	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**2.64**	**2.64**	**1.23**	**1.23**	**1.23**	**1.05**	**1.05**	**1.05**	**0.35**
	Fugitive $PM_{2.5}$ Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Offsite Pick-up Truck	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	19.34	7.73
Offsite Dump Truck	11.60	11.60	11.60	11.60	11.60	11.60	11.60	11.60	38.67	38.67	7.73	7.73	7.73	3.87	3.87	3.87	0.00
Onsite Total (lb/month)	**30.94**	**30.94**	**30.94**	**30.94**	**30.94**	**30.94**	**30.94**	**30.94**	**58.01**	**58.01**	**27.07**	**27.07**	**27.07**	**23.20**	**23.20**	**23.20**	**7.73**
Onsite Project Total (tons)	**0.26**																

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

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

Grading and Truck Dumping/Loading Fugitive PM_{10} Emissions from Lightspeed SJC02 Construction

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	0.25	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.00	0.00
Total (lb/day)	**0.04**	**0.04**	**0.04**	**0.29**	**0.29**	**0.29**	**0.29**	**0.29**	**0.29**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.00**	**0.00**
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	5.40	5.40	5.40	5.40	5.40	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.00	0.00
Total (lb/month)	**0.98**	**0.98**	**0.98**	**6.38**	**6.38**	**6.38**	**6.38**	**6.38**	**6.38**	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.98**	**0.00**	**0.00**
Project Total (tons)	**0.02**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for PM_{10}.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following conversion factor was used: 1.26 tons/cubic yard

Grading and Truck Dumping/Loading Fugitive $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

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	0.03	0.03	0.03	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading [d, e]	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	0.01	0.00	0.00
Onsite Total (lb/day)	**0.01**	**0.01**	**0.01**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.03**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.00**	**0.00**
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	0.58	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Dumping/Loading	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.00
Onsite Total (lb/month)	**0.15**	**0.15**	**0.15**	**0.73**	**0.73**	**0.73**	**0.73**	**0.73**	**0.73**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.15**	**0.00**	**0.00**
Onsite Project Total (tons)	**0.00**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for $PM_{2.5}$.
[c] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following blade width was assumed for grading equipment: 12 ft
[d] Assume that soil is dumped from or loaded to the truck the same month it is imported or exported, respectively.
[e] Per Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021), the following conversion factor was used: 1.26 tons/cubic yard

Onsite Demolition Fugitive PM_{10} Emissions from Lightspeed SJC02 Construction

Demolition Activity	Fugitive PM_{10} Emissions (lbs/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	1.22	0.00	0.00	0.00	0.00	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 (lbs/day)	**1.29**	**0.00**	**0.00**	**0.00**	**0.00**	**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 Activity	**Fugitive PM_{10} Emissions (lbs/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	1.45	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	0.00	0.00
Debris Loading [c]	26.85	0.00	0.00	0.00	0.00	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 (lbs/month)	**28.30**	**0.00**	**0.00**	**0.00**	**0.00**	**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)	**0.01**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for PM_{10}.
[c] Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Onsite Demolition Fugitive $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

Demolition Activity	Fugitive $PM_{2.5}$ Emissions (lbs/day) [a, b]																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Dismemberment	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	0.00	0.00	0.00
Debris Loading [c]	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	0.00	0.00
Onsite Total (lbs/day)	**0.19**	**0.00**	**0.00**	**0.00**	**0.00**	**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 Activity	**Fugitive $PM_{2.5}$ Emissions (lbs/month) [a, b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

Dismemberment	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Debris Loading [c]	4.07	0.00	0.00	0.00	0.00	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 (lbs/month)	**4.29**	**0.00**	**0.00**	**0.00**	**0.00**	**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**																

Notes:
[a] Work days per month are as follows, provided by the Applicant's engineering contractor: 22
[b] Emissions based on the controlled emission factor for $PM_{2.5}$.
[c] Assume that all debris generated per month from dismemberment is loaded in the same month that it is generated.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

Construction Vehicle Activity for Lightspeed SJC02 Construction

Vehicle Type	Onsite Miles/Day [a]	Offsite Miles/Day [a]	Working Days per Month [b]
Pick-up Truck	4	2	22
Dump Truck	4	2	22

Notes:
[a] Estimated based on the dimensions of the project site and anticipated activity onsite and offsite.
[b] Work days per month provided by the Applicant's engineering contractor.

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) = $\{k \text{ (lb/mile)} \times [\text{Silt Content (\%)} / 12]^{a} \times [\text{Mean Vehicle Weight (tons)} / 3]^{b}\} \times [(365 - P) / 365]$
[f] Control efficiency taken from Table XI-D of the *SCAQMD CEQA Handbook* for Travel Over Unpaved Roads (SCAQMD 2007), based on the basic construction mitigation measures recommended by BAAQMD (BAAQMD 2017c).

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 Twice Daily [d]	55%	55%
Emission Factor (Controlled, lb/ton)	0.00004	0.000006

Notes:
[a] k and M taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[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 2021):
Emission Factor (lb/ton) = $k \times 0.0032 \times [U \text{ (mph)} / 5]^{1.3} / [M \text{ (\%)} / 2]^{1.4}$
[d] Control efficiency based on watering twice daily, for consistency with the treatment of unpaved roads.

Emissions from Fugitive Dust and Other Offroad Activities
Lightspeed SJC02
August 2021

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 Twice Daily [c]	55%	55%
Emission Factor (Controlled, lb/VMT)	0.694	0.075

Notes:
[a] S and F taken from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] Emission factor calculated using the following equation from Section 4.3 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
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 based on watering twice daily, for consistency with the treatment of unpaved roads.

Fugitive Dust Emission Factors for Dismemberment
Dismemberment and Collapse of Structures

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
U (mph) [b]	4.9	4.9
M (%) [c]	2.0	2.0
Emission Factor (lbs/ton) [d]	0.00110	0.00017
Reduction from Watering Twice Daily [e]	55%	55%
Emission Factor (Controlled, lbs/ton)	0.00049	0.00007

Notes:
[a] k, the particle size multiplier, taken from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide (* BREEZE 2021).
[b] U, the mean wind speed, taken as the CalEEMod default for the Santa Clara climate region of the San Francisco Bay Area Air Basin. Converted from meters/second (m/s) to miles per hour (mph).
[c] M, the material moisture content, taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[d] Emission factor calculated using the following equation from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
Emission Factor (lbs/ton) = k x 0.0032 x [U / 5]$^{1.3}$ / [M / 2]$^{1.4}$
[e] Control efficiency based on watering twice daily, for consistency with the treatment of unpaved roads.

Fugitive Dust Emission Factors for Debris Loading
Loading of Debris/Building Waste

Parameter	PM_{10}	$PM_{2.5}$
k [a]	0.35	0.053
$EF_{L\text{-}TSP}$ [b]	0.058	0.058
Emission Factor (lbs/ton) [c]	0.020	0.003
Reduction from Watering Twice Daily [d]	55%	55%
Emission Factor (Controlled, lbs/ton)	0.009	0.001

Notes:
[a] k taken from Section 13.2.4.3 of *AP-42* (EPA 2006) per Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] $EF_{L\text{-}TSP}$ taken from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[c] Emission factor calculated using the following equation from Section 4.4 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021):
Emission Factor (lbs/ton) = k x $EF_{L\text{-}TSP}$ (lbs/ton)
[d] Control efficiency based on watering twice daily, for consistency with the treatment of unpaved roads.

Appendix 3.3A, Table 12
Onsite Paving Emissions
Lightspeed SJC02
August 2021

Paving VOC Emissions from Lightspeed SJC02 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
Paved Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.24
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**	**0.24**	**0.24**	**0.24**	**0.24**	**0.24**	**0.24**
Paving Area	**VOC Emissions (lb/month) [a]**																
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Paved Areas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.39	5.39	5.39	5.39	5.39	5.39
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**	**5.39**	**5.39**	**5.39**	**5.39**	**5.39**	**5.39**
Onsite Project Total (tons)	**0.02**																

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

Paving Emission Variables

Parameter	Value
Total Paved Area (acres) [a]	12.3
Working Days per Month [b]	22
Emission Factor (lb/acre) [c]	2.62

Notes:
[a] Total paved area estimated to include road and parking areas, sidewalks, motorcycle and bicycle parking spaces, outdoor equipment pads, and the substation, for a total area of 537,453 square feet.
[b] Working days per month were provided by the Applicant's engineering contractor.
[c] Emission factor is per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

Appendix 3.3A, Table 13
Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Usage During Lightspeed SJC02 Construction

Vehicle Type	Number per Day																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a, d]	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	120	120
Onroad Material Hauling Trucks [b, d]	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	0	0
Construction Worker Commute [c]	56	56	58	62	120	129	135	138	154	194	261	275	280	283	223	166	57

Notes:
[a] Onroad Delivery Trucks include information provided by the Applicant's engineering contractor, and exclude material haul trucks separately reported. Concrete truck trips are assumed to be included in this estimate.
[b] Material Hauling Trucks include data from the Applicant's engineering contractor. A net volume of 15 cubic yards per tandum dump truck results in 7,333 total trips for soil imports/exports. Truck trips limited to the months in which soil imports/exports are expected to be handled onsite, as presented in Appendix 3.3A, Table 11.
[c] Assumed 1 commute per 1 worker; number of workers traveling to both onsite and offsite locations provided by the Applicant's engineering contractor as Total Staffing each month.
[d] Assumed deliveries and material hauling would occur 22 days per month based on information from the Applicant's engineering contractor.

Onroad Vehicle Exhaust CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.52	1.25	1.25	1.25	1.25	1.25	1.25	1.54	1.54
Material Hauling Trucks	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.77	0.77	0.77	0.77	0.77	0.77	0.00	0.00
Construction Worker Commute	2.57	2.57	2.66	2.85	5.51	5.92	6.20	6.33	7.07	8.02	10.79	11.37	11.58	11.70	9.22	6.86	2.36
Onroad Total (lb/day)	**5.02**	**5.02**	**5.11**	**5.29**	**7.95**	**8.37**	**8.64**	**8.78**	**9.52**	**10.04**	**12.81**	**13.39**	**13.59**	**13.72**	**11.24**	**8.40**	**3.89**
Vehicle Type	**CO Emissions (lb/month)**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	33.48	33.48	33.48	33.48	33.48	33.48	33.48	33.48	33.48	27.54	27.54	27.54	27.54	27.54	27.54	33.80	33.80
Material Hauling Trucks	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	20.37	16.85	16.85	16.85	16.85	16.85	16.85	0.00	0.00
Construction Worker Commute	56.54	56.54	58.56	62.60	121.16	130.25	136.30	139.33	155.49	176.44	237.38	250.11	254.66	257.39	202.82	150.98	51.84
Onroad Total (lb/month)	**110.39**	**110.39**	**112.41**	**116.44**	**175.01**	**184.09**	**190.15**	**193.18**	**209.33**	**220.82**	**281.76**	**294.49**	**299.04**	**301.77**	**247.20**	**184.77**	**85.64**
Onroad Project Total (tons)	**1.66**																

Onroad Vehicle Exhaust VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.31	0.31	0.31	0.31	0.31	0.31	0.38	0.38
Material Hauling Trucks	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.18	0.18	0.18	0.18	0.18	0.18	0.00	0.00
Construction Worker Commute	0.04	0.04	0.04	0.05	0.09	0.10	0.10	0.10	0.12	0.12	0.17	0.18	0.18	0.18	0.14	0.11	0.04
Onroad Total (lb/day)	**0.65**	**0.65**	**0.65**	**0.65**	**0.69**	**0.70**	**0.71**	**0.71**	**0.72**	**0.61**	**0.65**	**0.66**	**0.66**	**0.67**	**0.63**	**0.49**	**0.42**
Vehicle Type	**VOC Emissions (lb/month)**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	6.82	6.82	6.82	6.82	6.82	6.82	8.38	8.38
Material Hauling Trucks	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	3.87	3.87	3.87	3.87	3.87	3.87	0.00	0.00
Construction Worker Commute	0.92	0.92	0.95	1.02	1.97	2.12	2.22	2.27	2.53	2.72	3.67	3.86	3.93	3.97	3.13	2.33	0.80
Onroad Total (lb/month)	**14.22**	**14.22**	**14.25**	**14.32**	**15.27**	**15.42**	**15.52**	**15.57**	**15.83**	**13.42**	**14.36**	**14.55**	**14.63**	**14.67**	**13.82**	**10.71**	**9.18**
Onroad Project Total (tons)	**0.12**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust SO_X Emissions from Lightspeed SJC02 Construction

	SO_X Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	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	0.03	0.04	0.04
Material Hauling Trucks	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00
Construction Worker Commute	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.04	0.03	0.02	0.01
Onroad Total (lb/day)	**0.07**	**0.07**	**0.07**	**0.07**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.08**	**0.09**	**0.09**	**0.09**	**0.09**	**0.09**	**0.06**	**0.05**
	SO_X Emissions (lb/month)																
Vehicle Type	**1.00**	**2.00**	**3.00**	**4.00**	**5.00**	**6.00**	**7.00**	**8.00**	**9.00**	**10.00**	**11.00**	**12.00**	**13.00**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.73	0.73	0.73	0.73	0.73	0.73	0.90	0.90
Material Hauling Trucks	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.55	0.55	0.55	0.55	0.55	0.55	0.00	0.00
Construction Worker Commute	0.16	0.16	0.16	0.17	0.34	0.36	0.38	0.39	0.43	0.53	0.72	0.75	0.77	0.78	0.61	0.46	0.16
Onroad Total (lb/month)	**1.47**	**1.47**	**1.48**	**1.49**	**1.65**	**1.68**	**1.70**	**1.70**	**1.75**	**1.81**	**2.00**	**2.03**	**2.05**	**2.06**	**1.89**	**1.36**	**1.06**
Onroad Project Total (tons)	**0.01**																

Onroad Vehicle Exhaust NO_X Emissions from Lightspeed SJC02 Construction

	NO_X Emissions (lb/day)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	10.47	10.47	10.47	10.47	10.47	10.47	10.47	10.47	10.47	8.96	8.96	8.96	8.96	8.96	8.96	10.99	10.99
Material Hauling Trucks	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	7.34	6.42	6.42	6.42	6.42	6.42	6.42	0.00	0.00
Construction Worker Commute	0.19	0.19	0.20	0.21	0.42	0.45	0.47	0.48	0.53	0.58	0.78	0.82	0.84	0.84	0.67	0.50	0.17
Onroad Total (lb/day)	**18.01**	**18.01**	**18.01**	**18.03**	**18.23**	**18.26**	**18.28**	**18.29**	**18.35**	**15.96**	**16.16**	**16.20**	**16.22**	**16.23**	**16.05**	**11.49**	**11.16**
	NO_X Emissions (lb/month)																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	230.37	230.37	230.37	230.37	230.37	230.37	230.37	230.37	230.37	197.08	197.08	197.08	197.08	197.08	197.08	241.87	241.87
Material Hauling Trucks	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49	161.49	141.34	141.34	141.34	141.34	141.34	141.34	0.00	0.00
Construction Worker Commute	4.27	4.27	4.42	4.73	9.15	9.83	10.29	10.52	11.74	12.74	17.14	18.06	18.39	18.58	14.64	10.90	3.74
Onroad Total (lb/month)	**396.12**	**396.12**	**396.27**	**396.58**	**401.00**	**401.69**	**402.14**	**402.37**	**403.59**	**351.16**	**355.56**	**356.48**	**356.80**	**357.00**	**353.06**	**252.77**	**245.61**
Onroad Project Total (tons)	**3.11**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust PM_{10} Emissions from Lightspeed SJC02 Construction

	PM_{10} Emissions (lb/day) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.51	1.48	1.48	1.48	1.48	1.48	1.48	1.81	1.81
Material Hauling Trucks	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.85	0.85	0.85	0.85	0.85	0.85	0.00	0.00
Construction Worker Commute	0.92	0.92	0.96	1.02	1.98	2.13	2.23	2.28	2.54	3.20	4.31	4.54	4.62	4.67	3.68	2.74	0.94
Onroad Total (lb/day)	**3.31**	**3.31**	**3.34**	**3.41**	**4.37**	**4.51**	**4.61**	**4.66**	**4.93**	**5.54**	**6.64**	**6.87**	**6.95**	**7.00**	**6.01**	**4.55**	**2.76**
	PM_{10} Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	33.29	32.53	32.53	32.53	32.53	32.53	32.53	39.93	39.93
Material Hauling Trucks	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	19.17	18.80	18.80	18.80	18.80	18.80	18.80	0.00	0.00
Construction Worker Commute	20.34	20.34	21.07	22.52	43.58	46.85	49.03	50.12	55.93	70.44	94.77	99.85	101.66	102.75	80.97	60.27	20.70
Onroad Total (lb/month)	**72.80**	**72.80**	**73.52**	**74.98**	**96.04**	**99.31**	**101.49**	**102.58**	**108.39**	**121.77**	**146.10**	**151.18**	**153.00**	**154.09**	**132.30**	**100.20**	**60.62**
Onroad Project Total (tons)	**0.91**																

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

Onroad Vehicle Exhaust, Vehicle Wear, and Fugitive Dust $PM_{2.5}$ Emissions from Lightspeed SJC02 Construction

	$PM_{2.5}$ Emissions (lb/day) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.53	0.53	0.53	0.53	0.53	0.53	0.65	0.65
Material Hauling Trucks	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.29	0.29	0.29	0.29	0.29	0.29	0.00	0.00
Construction Worker Commute	0.25	0.25	0.26	0.28	0.54	0.58	0.61	0.62	0.69	0.87	1.17	1.23	1.26	1.27	1.00	0.74	0.26
Onroad Total (lb/day)	**1.12**	**1.12**	**1.13**	**1.15**	**1.41**	**1.45**	**1.48**	**1.49**	**1.56**	**1.69**	**1.99**	**2.05**	**2.08**				**0.91**
	$PM_{2.5}$ Emissions (lb/month) [a]																
Vehicle Type	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**
Onroad Delivery Trucks	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	12.46	11.74	11.74	11.74	11.74	11.74	11.74	14.40	14.40
Material Hauling Trucks	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.33	6.33	6.33	6.33	6.33	6.33	0.00	0.00
Construction Worker Commute	5.53	5.53	5.72	6.12	11.84	12.73	13.32	13.62	15.20	19.13	25.74	27.12	27.61	27.91	21.99	16.37	5.62
Onroad Total (lb/month)	**24.67**	**24.67**	**24.87**	**25.26**	**30.98**	**31.87**	**32.47**	**32.76**	**34.34**	**37.20**	**43.81**	**45.19**	**45.68**	**45.98**	**40.06**	**30.77**	**20.02**
Onroad Project Total (tons)	**0.29**																

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

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust CO_2 Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.88	1.88	1.88	1.88	1.88	1.88	2.30	2.30
Material Hauling Trucks	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.45	1.45	1.45	1.45	1.45	1.45	0.00	0.00
Construction Worker Commute	0.38	0.38	0.39	0.42	0.82	0.88	0.92	0.94	1.05	1.28	1.73	1.82	1.85	1.87	1.48	1.10	0.38
Onroad Total (metric tons/day)	**3.76**	**3.76**	**3.78**	**3.81**	**4.20**	**4.26**	**4.30**	**4.32**	**4.43**	**4.61**	**5.05**	**5.14**	**5.18**				**2.68**
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**
Onroad Delivery Trucks	42.04	42.04	42.04	42.04	42.04	42.04	42.04	42.04	42.04	41.27	41.27	41.27	41.27	41.27	41.27	50.65	50.65
Material Hauling Trucks	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	32.41	31.85	31.85	31.85	31.85	31.85	31.85	0.00	0.00
Construction Worker Commute	8.38	8.38	8.68	9.28	17.96	19.31	20.20	20.65	23.05	28.26	38.02	40.06	40.79	41.23	32.49	24.18	8.30
Onroad Total (metric tons/month)	**82.83**	**82.83**	**83.13**	**83.72**	**92.40**	**93.75**	**94.65**	**95.10**	**97.49**	**101.38**	**111.14**	**113.18**	**113.91**	**114.35**	**105.61**	**74.84**	**58.96**
Onroad Project Total (metric tons)	**1,599.28**																

Onroad Vehicle Exhaust N_2O Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	7.55E-05	7.55E-05
Material Hauling Trucks	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	3.83E-05	0.00E+00	0.00E+00
Construction Worker Commute	1.94E-06	1.94E-06	2.00E-06	2.14E-06	4.15E-06	4.46E-06	4.67E-06	4.77E-06	5.32E-06	6.70E-06	9.02E-06	9.50E-06	9.68E-06	9.78E-06	7.71E-06	5.74E-06	1.97E-06
Onroad Total (metric tons/day)	**1.02E-04**	**1.02E-04**	**1.02E-04**	**1.02E-04**	**1.04E-04**	**1.04E-04**	**1.05E-04**	**1.05E-04**	**1.05E-04**	**1.07E-04**	**1.09E-04**	**1.09E-04**	**1.10E-04**	**1.10E-04**	**1.08E-04**	**8.12E-05**	**7.75E-05**
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**
Onroad Delivery Trucks	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.35E-03	1.66E-03	1.66E-03
Material Hauling Trucks	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	8.43E-04	0.00E+00	0.00E+00
Construction Worker Commute	4.26E-05	4.26E-05	4.41E-05	4.71E-05	9.12E-05	9.81E-05	1.03E-04	1.05E-04	1.17E-04	1.48E-04	1.98E-04	2.09E-04	2.13E-04	2.15E-04	1.70E-04	1.26E-04	4.33E-05
Onroad Total (metric tons/month)	**2.24E-03**	**2.24E-03**	**2.24E-03**	**2.24E-03**	**2.29E-03**	**2.29E-03**	**2.30E-03**	**2.30E-03**	**2.31E-03**	**2.34E-03**	**2.39E-03**	**2.41E-03**	**2.41E-03**	**2.41E-03**	**2.37E-03**	**1.79E-03**	**1.70E-03**
Onroad Project Total (metric tons)	**3.83E-02**																

Onroad Vehicle Exhaust Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Exhaust CH_4 Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.66E-05	1.66E-05
Material Hauling Trucks	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	8.44E-06	0.00E+00	0.00E+00
Construction Worker Commute	6.29E-06	6.29E-06	6.51E-06	6.96E-06	1.35E-05	1.45E-05	1.52E-05	1.55E-05	1.73E-05	2.18E-05	2.93E-05	3.09E-05	3.14E-05	3.18E-05	2.50E-05	1.86E-05	6.40E-06
Onroad Total (metric tons/day)	**2.83E-05**	**2.83E-05**	**2.85E-05**	**2.90E-05**	**3.55E-05**	**3.65E-05**	**3.72E-05**	**3.75E-05**	**3.93E-05**	**4.38E-05**	**5.13E-05**	**5.29E-05**	**5.35E-05**	**5.38E-05**	**4.71E-05**	**3.53E-05**	**2.30E-05**
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
Onroad Delivery Trucks	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	2.98E-04	3.66E-04	3.66E-04
Material Hauling Trucks	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	1.86E-04	0.00E+00	0.00E+00
Construction Worker Commute	1.38E-04	1.38E-04	1.43E-04	1.53E-04	2.97E-04	3.19E-04	3.34E-04	3.41E-04	3.81E-04	4.79E-04	6.45E-04	6.80E-04	6.92E-04	6.99E-04	5.51E-04	4.10E-04	1.41E-04
Onroad Total (metric tons/month)	**6.23E-04**	**6.23E-04**	**6.27E-04**	**6.37E-04**	**7.81E-04**	**8.03E-04**	**8.18E-04**	**8.25E-04**	**8.65E-04**	**9.64E-04**	**1.13E-03**	**1.16E-03**	**1.18E-03**	**1.18E-03**	**1.04E-03**	**7.76E-04**	**5.07E-04**
Onroad Project Total (metric tons)	**1.45E-02**																

Onroad Construction Vehicle Activity for Lightspeed SJC02 Construction

Vehicle Type	Roundtrip Miles/Day	Working Days per Month [a]
Onroad Delivery Trucks [b]	14.6	22
Material Hauling Trucks [c]	40.0	22
Construction Worker Commute [b]	21.6	22

Notes:

[a] The working days per month was provided by the Applicant's engineering contractor.

[b] Roundtrip miles/day for Onroad 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 2021).

[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 2021).

Appendix 3.3A, Table 14
Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling CO Emissions from Lightspeed SJC02 Construction

Vehicle Type	CO Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.56	0.56
Material Hauling Trucks [a]	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.00
Onroad Total (lb/day)	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.58**	**0.59**	**0.59**	**0.59**	**0.59**	**0.59**	**0.59**	**0.56**	**0.56**
Vehicle Type	**CO Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	9.90	9.90	9.90	9.90	9.90	9.90	9.90	9.90	9.90	10.03	10.03	10.03	10.03	10.03	10.03	12.31	12.31
Material Hauling Trucks [a]	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.82	2.86	2.86	2.86	2.86	2.86	2.86	0.00	0.00
Onroad Total (lb/month)	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.72**	**12.90**	**12.90**	**12.90**	**12.90**	**12.90**	**12.90**	**12.31**	**12.31**
Onroad Project Total (tons)	**0.11**																

Onroad Vehicle Idling VOC Emissions from Lightspeed SJC02 Construction

Vehicle Type	VOC Emissions (lb/day)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	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	0.03	0.04	0.04
Material Hauling Trucks [a]	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	0.01	0.00	0.00
Onroad Total (lb/day)	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**
Vehicle Type	**VOC Emissions (lb/month) [b]**																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Onroad Delivery Trucks [a]	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.67	0.65	0.65	0.65	0.65	0.65	0.65	0.80	0.80
Material Hauling Trucks [a]	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.00	0.00
Onroad Total (lb/month)	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.89**	**0.87**	**0.87**	**0.87**	**0.87**	**0.87**	**0.87**	**0.80**	**0.80**
Onroad Project Total (tons)	**0.01**																

Onroad Vehicle Idling SO_X Emissions from Lightspeed SJC02 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
Onroad 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
Onroad 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
Onroad Delivery Trucks [a]	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	0.02	0.03	0.03
Material Hauling Trucks [a]	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	0.01	0.00	0.00
Onroad Total (lb/month)	**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**	**0.03**	**0.03**	**0.03**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling NO_X Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks [a]	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.87	0.87	0.87	0.87	0.87	0.87	1.07	1.07
Material Hauling Trucks [a]	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.00
Onroad Total (lb/day)	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.08**	**1.01**	**1.01**	**1.01**	**1.01**	**1.01**	**1.01**	**1.07**	**1.07**
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
Onroad Delivery Trucks [a]	20.56	20.56	20.56	20.56	20.56	20.56	20.56	20.56	20.56	19.14	19.14	19.14	19.14	19.14	19.14	23.49	23.49
Material Hauling Trucks [a]	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.02	3.02	3.02	3.02	3.02	3.02	0.00	0.00
Onroad Total (lb/month)	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**23.69**	**22.16**	**22.16**	**22.16**	**22.16**	**22.16**	**22.16**	**23.49**	**23.49**
Onroad Project Total (tons)	**0.20**																

Onroad Vehicle Idling PM_{10} Emissions from Lightspeed SJC02 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
Onroad 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
Onroad 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
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
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
Onroad Total (lb/month)	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling $PM_{2.5}$ Emissions from Lightspeed SJC02 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
Onroad 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
Onroad 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
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
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
Onroad Total (lb/month)	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.05**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**	**0.05**	**0.05**
Onroad Project Total (tons)	**0.00**																

Onroad Vehicle Idling Emissions
Lightspeed SJC02
August 2021

Onroad Vehicle Idling CO_2 Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks [a]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06
Material Hauling Trucks [a]	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	0.01	0.00	0.00
Onroad Total (metric tons/day)	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**	**0.06**
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
Onroad Delivery Trucks [a]	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.14	1.14	1.14	1.14	1.14	1.14	1.40	1.40
Material Hauling Trucks [a]	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	0.25	0.00	0.00
Onroad Total (metric tons/month)	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.41**	**1.39**	**1.39**	**1.39**	**1.39**	**1.39**	**1.39**	**1.40**	**1.40**
Onroad Project Total (metric tons)	**23.80**																

Onroad Vehicle Idling CH_4 Emissions from Lightspeed SJC02 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
Onroad Delivery Trucks [a]	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.46E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	6.25E-07	7.67E-07	7.67E-07
Material Hauling Trucks [a]	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	2.06E-07	0.00E+00	0.00E+00
Onroad Total (metric tons/day)	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.54E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**8.31E-07**	**7.67E-07**	**7.67E-07**
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
Onroad Delivery Trucks [a]	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.69E-05	1.69E-05
Material Hauling Trucks [a]	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.56E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	4.53E-06	0.00E+00	0.00E+00
Onroad Total (metric tons/month)	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.88E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.83E-05**	**1.69E-05**	**1.69E-05**
Onroad Project Total (metric tons)	**3.12E-04**																

Notes:
[a] It is estimated that each Onroad delivery truck and material haul truck idles for approximately 5 minutes each day, or: 0.083 idle-hrs/day.
[b] The days per month for construction in the data above was provided by the Applicant's engineering contractor.

Appendix 3.3A, Table 15
Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 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)

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
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 = EMFAC2017 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 = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons
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 = Total Project Emissions (tons)
			E_m = Emissions (lb/month)
			2,000 = Conversion from lb to tons

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
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)
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 = EMFAC2017 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
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 = EMFAC2017 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)

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
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/month)
			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 2021).
			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
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 2021).
			A = Graded area (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
Fugitive PM_{10} and $PM_{2.5}$ from Dismemberment and Debris Loading	PM_{10} and $PM_{2.5}$	$E_d = T \times EF / D$	E_d = Emissions (lb/day)
			T = Debris Generated from Mechanical Dismemberment (tons/month)
			D = Number of construction days per month
			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 2021).
		$E_m = E_d \times D$	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

Equations Used to Calculate Criteria Pollutant and GHG Emissions
Lightspeed SJC02
August 2021

Equations Used to Calculate Emissions from Lightspeed SJC02 Construction

Emission Source	Pollutants	Equations	Variables
Paving	VOC	$E_d = A / M / D \times EF$	EF = VOC emission factor (lb/acre), calculated per Section 4.8 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
			A = Area of paved areas (acres)
			E_d = Emissions (lb/day)
			D = Number of construction days per month
			M = Number of paving construction months
		$E_m = E_d \times D$	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 16
Construction Equipment Criteria Pollutant Emission Factors
Lightspeed SJC02
August 2021

Construction Equipment Emission Factors for Lightspeed SJC02 Construction

Equipment [a]	Hours per Month [b]	Horsepower [c]	Load Factor [c]	2020 Emission Factors (g/bhp-hr) [d, e]						2021 Emission Factors (g/bhp-hr) [d, e]						2020 Fuel Consumption (gallons/hour) [f]
				CO	VOC	NO_X [h]	SO_X	PM_{10} [h]	$PM_{2.5}$	CO	VOC	NO_X [h]	SO_X	PM_{10} [h]	$PM_{2.5}$	
Onsite																
Water Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.079	1.338	0.225	0.260	0.005	0.008	0.066	4.15
Excavator	220	158	0.38	3.086	0.231	0.260	0.005	0.008	0.102	3.086	0.216	0.260	0.005	0.008	0.091	2.89
Grader	220	187	0.41	1.342	0.352	2.320	0.005	0.088	0.138	1.307	0.335	2.320	0.005	0.088	0.128	3.15
Cranes	220	231	0.29	1.790	0.384	2.320	0.005	0.088	0.173	1.678	0.349	2.320	0.005	0.088	0.153	2.19
Backhoe	220	97	0.37	3.601	0.331	0.260	0.005	0.008	0.193	3.571	0.296	0.260	0.005	0.008	0.162	1.59
Rubber Tired Loader	220	203	0.36	1.269	0.290	2.320	0.005	0.088	0.104	1.240	0.266	2.320	0.005	0.088	0.092	2.80
Forklift	220	89	0.20	3.760	0.459	2.740	0.005	0.192	0.283	3.720	0.412	2.740	0.005	0.192	0.245	2.00
Roller	220	80	0.38	3.531	0.388	2.740	0.005	0.192	0.228	3.507	0.353	2.740	0.005	0.192	0.202	1.35
Bore/Drill Rigs	220	221	0.5	1.068	0.142	0.260	0.005	0.008	0.048	1.064	0.132	0.260	0.005	0.008	0.043	3.90
Other General Industrial Equipment	220	88	0.34	3.771	0.446	2.740	0.005	0.192	0.272	3.740	0.404	2.740	0.005	0.192	0.235	1.38
Offsite																
Water Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.079	1.338	0.225	0.260	0.005	0.008	0.066	4.15
Concrete Truck [g]	220	402	0.38	1.414	0.246	0.260	0.005	0.008	0.079	1.338	0.225	0.260	0.005	0.008	0.066	4.15
Excavator	220	158	0.38	3.086	0.231	0.260	0.005	0.008	0.102	3.086	0.216	0.260	0.005	0.008	0.091	2.89
Grader	220	187	0.41	1.342	0.352	2.320	0.005	0.088	0.138	1.307	0.335	2.320	0.005	0.088	0.128	3.15
Backhoe	220	97	0.37	3.601	0.331	0.260	0.005	0.008	0.193	3.571	0.296	0.260	0.005	0.008	0.162	1.59
Rubber Tired Loader	220	203	0.36	1.269	0.290	2.320	0.005	0.088	0.104	1.240	0.266	2.320	0.005	0.088	0.092	2.80
Forklift	220	89	0.20	3.760	0.459	2.740	0.005	0.192	0.283	3.720	0.412	2.740	0.005	0.192	0.245	2.00
Roller	220	80	0.38	3.531	0.388	2.740	0.005	0.192	0.228	3.507	0.353	2.740	0.005	0.192	0.202	1.35
Bore/Drill Rigs	220	221	0.5	1.068	0.142	0.260	0.005	0.008	0.048	1.064	0.132	0.260	0.005	0.008	0.043	3.90

Notes:
[a] Assumed all equipment is fired with diesel fuel, per Section 4.2 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
[b] Hours per month calculated based on the following schedule,
Work hours per day: 10
Work days per month: 22
[c] Construction equipment horsepower and load factor taken from Table 3.3 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).
[d] Unless otherwise noted, construction equipment emission factors taken from Table 3.4 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).
[e] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors and fuel consumption were use provide a more conservative emissions estimate.
[f] 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 2020 and 2021; value estimated by dividing the reported consumption (gallons/year) by the report
[g] Horsepower, load factor, and emission factors for Off-Highway Trucks were assumed representative of Water and Concrete Trucks.

Appendix 3.3A, Table 17
Vehicle Criteria Pollutant Emission Factors
Lightspeed SJC02
August 2021

Vehicle Exhaust Emission Factors for Lightspeed SJC02 Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2020 Exhaust Emission Factors (g/mile) [b, c]						2021 Exhaust Emission Factors (g/mile) [b, c]						Paved Road Emission Factors (g/mile) [d]	
			CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
Pick-up Truck	Onsite or Offsite, Offroad	Light-duty Truck	2.303	0.152	0.008	0.200	0.044	0.029	2.053	0.132	0.008	0.173	0.057	0.029	N/A	N/A
Onroad Delivery Trucks	Onroad	Heavy/Medium-duty Diesel	0.484	0.122	0.011	3.327	0.180	0.105	0.398	0.099	0.011	2.846	0.169	0.094	0.300	0.075
Material Hauling Trucks	Onroad	Heavy-duty Diesel	0.472	0.112	0.013	3.746	0.144	0.080	0.391	0.090	0.013	3.279	0.136	0.072	0.300	0.075
Construction Worker Commute	Onroad	Light-duty Auto/Truck	0.964	0.016	0.003	0.073	0.046	0.019	0.868	0.013	0.003	0.063	0.046	0.019	0.300	0.075
Dump Truck	Onsite or Offsite, Offroad	Heavy-duty Diesel	3.688	1.298	0.034	15.383	0.457	0.437	3.334	0.978	0.034	14.691	0.328	0.313	N/A	N/A

Vehicle Idling Emission Factors for Lightspeed Construction

Vehicle Type	Location of Vehicle Operation	Vehicle Class [a]	2020 Idle Emission Factors (g/idle-hr) [b, c]						2021 Idle Emission Factors (g/idle-hr) [b, c]					
			CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$	CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$
Onroad Delivery Trucks	Onroad	Heavy/Medium-duty Diesel	25.051	1.708	0.062	52.031	0.138	0.132	25.387	1.652	0.061	48.438	0.113	0.108
Material Hauling Trucks	Onroad	Heavy-duty Diesel	31.380	2.410	0.059	34.785	0.029	0.027	31.899	2.394	0.058	33.596	0.024	0.023
Dump Truck	Onsite or Offsite, Offroad	Heavy-duty Diesel	31.380	2.410	0.059	34.785	0.029	0.027	31.899	2.394	0.058	33.596	0.024	0.023

Notes:
[a] The vehicle classes are represented as follows:
Light-duty Truck: Assumed to be 50% LDT1 Gas and 50% LDT2 Gas values, based on an understanding of the vehicle type.
Heavy-duty Diesel: Assumed to be 100% HHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).
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 2021).
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 2021) and assuming workers typically drive gasoline-fueled vehicles.
[b] Exhaust and idling emission factors from EMFAC2017 for Santa Clara County, calendar year 2020 and 2021. A speed of 5 mph was assumed for onsite and offsite vehicles; a speed of 40 mph was assumed for onroad vehicles and worker commutes, which is consistent with the CalEEMod de
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] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors and fuel economy were used, as appropriate, to provide a more co

[d] Paved road emission factors calculated using CalEEMod methodology, as described below.
[e] Fuel economy from the EMFAC2017 Web Database (http://www.arb.ca.gov/emfac/2017/) for Santa Clara County, calendar year 2020 and 2021.

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

Appendix 3.3A, Table 18
GHG Emission Factors
Lightspeed SJC02
August 2021

GHG Exhaust Emission Factors for Lightspeed SJC02 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. 2021. 2021 *Climate Registry Default Emission Factors*. Table 2.1. May.
Diesel	10.21	kg CO_2/gallon	The Climate Registry. 2021. 2021 *Climate Registry Default Emission Factors*. Table 2.1. May.
N_2O Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0016	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Gasoline Light-duty Truck Model Year 2018 [a]	0.0015	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0431	g N_2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Off-road Vehicle	0.49	g N_2O/gallon	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.7. May.
CH_4 Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0052	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Gasoline Light-duty Truck Model Year 2018 [a]	0.0081	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0095	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Off-road Vehicle	0.13	g CH_4/gallon	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.7. May.

Notes:
[a] Model Year 2018 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 (Diesel Vehicles Only) for Lightspeed SJC02 Construction

Vehicle Type	Vehicle Class [a]	2020 Idling Emission Factors (g/idle-hr) [b, c]		2021 Idling Emission Factors (g/idle-hr) [b, c]	
		CO_2	CH_4	CO_2	CH_4
Onroad Delivery Trucks	Heavy/Medium-duty Diesel	6,457.043	0.079	6,364.980	0.077
Material Hauling Trucks	Heavy-duty Diesel	6,154.064	0.112	6,065.927	0.111
Dump Truck	Heavy-duty Diesel	6,154.064	0.112	6,065.927	0.111

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 2021).
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 2021).

[b] Idling emission factors from EMFAC2017 for the Santa Clara County, calendar year 2020 and 2021. 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] Based on the preliminary construction schedule, Months 1 through 9 will occur in Year 1 and Months 10 through 17 will occur in Year 2. Although construction is not expected to begin until 2022, 2020 and 2021 emission factors were used, as appropriate, to provide a more conservative emissions estimate.

Appendix 3.3B – Revised Operation Emissions

Appendix 3.3B, Table 1
Operation Emissions - Summary for BAAQMD PTE Policy Analysis
Lightspeed SJC02
August 2021

Operational Details for Generators at 100% Load

Parameter	Units	Value	Comments
Total Number of Natural Gas Generators	units	224	Total number of 0.45-MW natural gas generators to be permitted for purposes of emergency operations, maintenance and testing, and resource adequacy (RA).
Total Number of Administrative Generators	units	2	One 1.25-MW generator and one 0.5-MW generator to be permitted for emergency operations and maintenance and testing purposes.
Annual Hours of Operation per Unit for Emergency Purposes	hrs/yr	100	Required by the BAAQMD's policy, *Calculating Potential to Emit for Emergency Backup Power Generators* (BAAQMD 2019).
Annual Hours of Operations per Natural Gas Generator for RA and Maintenance and Testing Purposes	hrs/yr	509	Maximum of 500 hours for RA and 9 hours for maintenance and testing proposed for each natural gas generator.
Annual Hours of Operation per Administrative Generator for Maintenance and Testing Purposes	hrs/yr	42	Maximum maintenance and testing hours proposed for each administrative generator.

Appendix 3.3B, Table 1
Operation Emissions - Summary for BAAQMD PTE Policy Analysis
Lightspeed SJC02
August 2021

Operation Criteria Pollutant Emissions

Annual Operation	Annual Emissions (tpy)					
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$
Natural Gas Generators - Maximum PTE [a]	3.14	51.3	2.7	0.26	0.28	0.28
Natural Gas Generators - Routine PTE [b]	2.62	42.84	2.22	0.22	0.23	0.23
Administrative Generators - Maximum PTE [c]	0.18	0.28	1.59	0.00	0.03	0.03
Administrative Generators - Routine PTE [b]	0.05	0.08	0.47	0.00	0.01	0.01
Mobile Sources	0.03	0.85	0.60	0.00	0.07	0.03
Facility Upkeep	2.38	0.43	0.51	0.00	0.04	0.04
Project Total [d]	**5.09**	**44.21**	**3.8**	**0.23**	**0.35**	**0.31**
BAAQMD Annual Thresholds of Significance [e]	10	--	10	--	15	10
Exceeds BAAQMD Annual Threshold (Y/N)?	N	N	N	N	N	N
Natural Gas and Administrative Generators - Maximum PTE [f]	**3.32**	**51.5**	**4.2**	**0.26**	**0.30**	**0.30**
Title V Threshold [g]	100	100	100	100	100	100
Exceeds Title V Threshold (Y/N)?	N	N	N	N	N	N
Prevention of Significant Deterioration (PSD) Threshold [h]	250	250	250	250	250	250
Exceeds PSD Threshold (Y/N)?	N	N	N	N	N	N

Notes:

[a] Maximum PTE emissions assume operation of all 224 natural gas generators at 100% load. To comply with the Bay Area Air Quality Management District's (BAAQMD) policy, *Calculating Potential to Emit for Emergency Backup Power Generators* (BAAQMD 2019), it is assumed that all natural gas generators will operate 609 hours per year.

[b] Routine PTE emissions assume up to 509 hours of operation per year for each natural gas generator and 42 hours of operation per year for each administrative generator at 100% load. Routine operations include maintenance and testing and RA purposes, as applicable.

[c] Maximum PTE emissions assume operation of both adminstrative diesel generators at 100% load. To comply with BAAQMD's policy, *Calculating Potential to Emit for Emergency Backup Power Generators* (BAAQMD 2019), it is assumed that both of the administrative generators will operate 142 hours per year.

[d] For CEQA comparison purposes, the Project Total includes the routine PTE emissions for natural gas and administrative generators, as well as emissions associated with offsite vehicles and ongoing facility upkeep.

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

[f] For permitting comparison purposes, consistent with BAAQMD's policy (BAAQMD 2019), the maximum PTE emissions for the natural gas and administrative generators were used to determine Title V and PSD applicability.

[g] Title V applicability criteria taken from BAAQMD's Title V Applicability Criteria - Major Facility website, located at http://www.baaqmd.gov/permits/major-facility-review-title-v/title-v-applicability-criteria. This criteria is consistent with BAAQMD Regulation 2-2-217, Major Facility.

[h] The U.S. Environmental Protection Agency's (EPA) PSD Thresholds taken from BAAQMD Regulation 2-2-224, PSD Project.

Appendix 3.3B, Table 2
Routine Operation Emissions - Summary
Lightspeed SJC02
August 2021

Routine Operation Criteria Pollutant Emissions

Daily Operation	Average Daily Emissions (lbs/day) [a]						
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	NH_3
Administrative Generators	0.3	0.5	3	0.00	0.04	0.04	0.01
Natural Gas Generators	14.6	238.0	12	1.22	1.28	1.28	--
Mobile Sources	0.17	4.66	3.31	0.02	0.38	0.18	--
Facility Upkeep [b]	13.0	2.38	2.81	0.02	0.21	0.21	--
Unmitigated Project Total	28.1	245.5	21	1.26	1.92	1.72	0.01
Mitigation [c]	--	--	--	--	--	--	--
Mitigated Project Total	28.1	245.5	21.1	1.26	1.92	1.72	0.01
BAAQMD Daily Thresholds of Significance [d]	54	--	54	--	82	54	--
Exceeds Daily Threshold (Y/N)?	N	N	N	N	N	N	N
Annual Operation	**Maximum Annual Emissions (tpy) [a]**						
	VOC	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	NH_3
Administrative Generators	0.05	0.08	0.5	0.00	0.01	0.01	0.00
Natural Gas Generators	2.62	42.84	2.2	0.22	0.23	0.23	--
Mobile Sources	0.03	0.85	0.60	0.00	0.07	0.03	--
Facility Upkeep	2.38	0.43	0.51	0.00	0.04	0.04	--
Unmitigated Project Total	5.09	44.21	3.8	0.23	0.35	0.31	0.00
Mitigation [c]	--	--	--	--	--	--	--
Mitigated Project Total	5.09	44.21	3.81	0.23	0.35	0.31	0.00
BAAQMD Annual Thresholds of Significance [d]	10	--	10	--	15	10	--
Exceeds Annual Threshold (Y/N)?	N	N	N	N	N	N	N

Routine Operation GHG Emissions

Annual Operation	Maximum Annual Emissions (metric tons/year) [a]			
	CO_2	CH_4	N_2O	CO_2e
Natural Gas and Administrative Generators	33,542	0.63	0.06	33,577
Mobile Sources	453	0.01	0.01	455
Facility Upkeep	253,279	23.0	2.51	254,846
Project Total	287,274	23.7	2.58	288,879
BAAQMD Thresholds of Significance [d]	--	--	--	10,000
Exceeds Threshold (Y/N)? [e, g]	N	N	N	Y
Cap-and-Trade Applicability Threshold [f]	--	--	--	25,000
Exceeds Threshold (Y/N)? [g]	N	N	N	Y

Notes:

[a] Emissions assume concurrent operation of all 224 natural gas generators (Enchanted Rock 21.9L engines) and 2 administrative diesel generators at 100% load and include emissions associated with offsite vehicles and ongoing facility upkeep (including storage tank refueling and operation of cooling units). Daily emission estimates conservatively assume all generators (RA and maintenance and testing, as applicable) and other facility sources could operate concurrently.

[b] The following factors were used to convert facility upkeep emissions from tpy to lbs/day:

1 year =	365	days
1 ton =	2,000	lbs

[c] Criteria pollutant emissions presented as mitigation are not required since the project's criteria pollutant emissions from the natural gas and administrative generators are less than the BAAQMD significance levels.

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

[e] The GHG Threshold of Significance is pertinent to only stationary sources, such that only the natural gas and administrative generator emissions are compared.

[f] The Cap-and-Trade Applicability Threshold taken from 17 California Code of Regulations (CCR) 95852.

[g] GHG emissions from the project's natural gas and administrative generators will be completely offset through participation in CARB's Cap-and-Trade Program or substantially offset through the utilization of renewable fuels.

Appendix 3.3B, Table 3
0.45-MW Natural Gas Generator: Performance Data
Lightspeed SJC02
August 2021

Performance Data

Parameter	Units	Emission Factors Basis			Note
		100% Load	75% Load	50% Load	
Engine Power	BHP	602	451	301	1
Generator Power with Fan	MWe	0.45	0.34	0.22	1
Brake Specific Fuel Consumption	kg/KW-hr	0.230	0.235	0.253	2
Exhaust Stack Outlet Temperature	°F	950	900	850	1
Exhaust Gas Outlet Flow Rate	ft^3/min (dscfm)	790	600	440	1, 8
Heat Input	MMBtu/hr	5.54	4.24	3.04	3, 9
Heating Value	BTU/SCF	1,026	1,026	1,026	4
Operation					
Number of Standby Generators	units	224	224	224	5
Annual Hours of Maintenance and Testing	hrs/yr	9	9	9	5
Annual Hours of Resource Adequacy	hrs/yr	500	500	500	5
Total Annual Hours of Operation	hrs/yr	509	509	509	6
Controlled Estimated Stack Emissions					
NO_X	lb/MWe-hr	0.07	0.07	0.07	1
CO	lb/MWe-hr	0.10	0.10	0.10	1
VOC	lb/MWe-hr	0.02	0.02	0.02	1
PM	lb/MWe-hr	0.01	0.01	0.01	1
SO_2	gr/100-scf	0.50	0.50	0.50	7
Stack Height	ft	13	13	13	8
Stack Diameter (Individual Stack)	in	6	6	6	8
Stack Diameter (Combined Stack)	in	8.49	8.49	8.49	10
Uncontrolled Estimated Stack Emissions					
NO_X	lb/MWe-hr	0.14	0.14	0.14	1
CO	lb/MWe-hr	6.41	6.41	6.41	1
VOC	lb/MWe-hr	0.35	0.35	0.35	1
PM	lb/MWe-hr	0.01	0.01	0.01	1
SO_2	gr/100-scf	0.50	0.50	0.50	7
Stack Height	ft	13	13	13	8
Stack Diameter (Individual Stack)	in	6	6	6	8
Stack Diameter (Combined Stack)	in	8.49	8.49	8.49	10

Notes:
1. Reflects representative generator OEM information, as provided by the Applicant's engineering contractor.
2. Provided by the Applicant's engineering contractor.
3. Calculated from other data provided within the table.
4. The heating value of natural gas is from 40 Code of Federal Regulations (CFR) 98, Table C-1 (for Natural Gas).
5. Reflects intended project design.
6. Total hours of non-emergency operations.
7. https://www.pge.com/pipeline/operations/sulfur/sulfur_info/index.page#:~:text=Pipeline%20natural%20gas%20contains%200.5,per%20100%20standard%20cubic%20feet.
8. Each Enchanted Rock engine has two identical exhaust stacks at the indicated height and diameter, which cumulatively have the flow presented above.
9. The density of natural gas of 1 lb/23.8 ft^3 was obtained from *AP-42*, Appendix A (EPA 1985).
10. Combined stack diameter back-calculated from the sum of two individual stack areas with 6-inch diameters.

Appendix 3.3B, Table 4
1.25-MW Administrative Diesel Generator: Performance Data
Lightspeed SJC02
August 2021

Performance Data

Parameter	Units	Certified Emission Factors Basis			Note
		100% Load	75% Load	50% Load	
Engine Power	BHP	1,817	1,373	937	1
Generator Power with Fan	MW	1.25	0.94	0.63	1
Fuel Consumption	gal/hr	92.3	67.6	48.2	1
Exhaust Stack Outlet Temperature	°F	1,007	865	829	1
Exhaust Gas Outlet Flow Rate	ft^3/min (acfm)	10,798	8,080	6,024	1
Heat Input	MMBtu/hr	12.7	9.3	6.7	2
Heating Value	MMBtu/gal	0.138	0.138	0.138	3
Operation					
Number of Administrative Generators	units	1	1	1	4
Annual Hours of Operation per Unit	hrs/yr	42	42	42	5
Estimated Stack Emissions					
NO_X	g/hp-hr	3.74	3.74	3.74	6
CO	g/hp-hr	0.79	0.79	0.79	6
VOC	g/hp-hr	0.59	0.59	0.59	6
PM	g/hp-hr	0.08	0.08	0.08	1, 7
SO_2 - 15 ppmw Maximum Fuel Sulfur	lb/hp-hr	1.07E-05	1.04E-05	1.09E-05	8
NH_3 - 5 ppm Ammonia Slip	lb/hr	0.09	0.07	0.05	9
Stack Height	ft	20	20	20	10
Stack Diameter	in	10	10	10	1

Notes:
1. Reflects representative generator OEM information, as provided by the Applicant's engineering contractor.
2. Calculated from other data provided within the table.
3. The heating value of diesel is from 40 CFR 98, Table C-1 (for Distillate Fuel Oil No. 2).
4. Reflects intended project design.
5. In compliance with regulatory limit for standby generators of 50 hours per year, per 17 CCR 93115.6.

6. The Tier 2 emission factors presented below are based on the certification for Model Year 2021 Caterpillar 3512C, as obtained from South Coast Air Quality Management District's (SCAQMD) ICE-Emergency Generator Certification Database (http://www.aqmd.gov/home/permits/equipment-registration):

Pollutant	Certified Emission Factors	Emission Factor Units	Emission Factor Source
NO_X	3.74	g/hp-hr	SCAQMD
CO	0.79	g/hp-hr	SCAQMD
VOC as NMHC	0.59	g/hp-hr	SCAQMD
PM	0.08	g/hp-hr	SCAQMD

7. The Tier 4 emissions factor is representative for the particulate matter emissions to include the control technology. This technology is the combination of an oxidation catalyst and a diesel particulate filter.

8. 13 CCR 2281 limits the sulfur content of California diesel fuel to 15 ppmw (https://www.arb.ca.gov/fuels/diesel/081404dslregs.pdf). The following conversion factors were used to calculate a SO_2 emission factor from this sulfur content:

Density of Diesel Fuel (lb/gal):	7.05	[*AP-42*, Appendix A, Page A-6 (EPA 1985)]
Molecular Weight of Sulfur:	32	
Molecular Weight of SO_2:	64	

9. Ammonia emissions were estimated using EPA's Method 19 Equation 19-1 (EPA 2017), for which the SCR is assumed to have a 5 ppm ammonia slip, and the following conversion factors:

1 ppm NH_3:	4.42E-08	lb/dscf @ 0% O_2 Ratio of Molecular Weights
F-Factor (Distillate):	9,190	dscf/MMBtu
% O_2 in Stack:	15	%

10. Assumed similar to original design, as reflected in drawings provided by the Applicant's engineering contractor.

Appendix 3.3B, Table 5
0.5-MW Administrative Diesel Generator: Performance Data
Lightspeed SJC02
August 2021

Performance Data

Parameter	Units	Certified Emission Factors Basis			Note
		100% Load	75% Load	50% Load	
Engine Power	BHP	731	554	378	1
Generator Power with Fan	MW	0.5	0.4	0.3	1
Fuel Consumption	gal/hr	34.4	25.7	18.8	2
Exhaust Stack Outlet Temperature	°F	894.0	852.0	828.0	1
Exhaust Gas Outlet Flow Rate	ft^3/min (acfm)	3,442.0	2,771.0	2,245.0	1
Heat Input	MMBtu/hr	4.7	3.5	2.6	3
Heating Value	MMBtu/gal	0.138	0.138	0.138	4
Operation					
Number of Administrative Generators	units	1	1	1	5
Annual Hours of Operation per Unit	hrs/yr	42	42	42	6
Estimated Stack Emissions					
NO_X	g/hp-hr	4.59	4.59	4.59	7
CO	g/hp-hr	0.45	0.45	0.45	7
VOC	g/hp-hr	0.11	0.11	0.11	7
PM	g/hp-hr	0.02	0.02	0.02	1, 8
SO_2 - 15 ppmw Maximum Fuel Sulfur	lb/hp-hr	9.95E-06	9.81E-06	1.05E-05	9
NH_3 - 5 ppm Ammonia Slip	lb/hr	0.03	0.03	0.02	10
Stack Height	ft	20	20	20	11
Stack Diameter	in	14	14	14	11

Notes:
1. Reflects representative generator OEM information, as provided by the Applicant's engineering contractor.
2. Provided by the Applicant's engineering contractor.
3. Calculated from other data provided within the table.
4. The heating value of diesel is from 40 CFR 98, Table C-1 (for Distillate Fuel Oil No. 2).
5. Reflects intended project design.
6. In compliance with regulatory limit for standby generators of 50 hours per year, per 17 CCR 93115.6.

7. The Tier 2 emission factors presented below are based on the certification for Model Year 2021 Cummins QSX15, as obtained from SCAQMD's ICE-Emergency Generator Certification Database (http://www.aqmd.gov/home/permits/equipment-registration), with Tier 4 emission factor reflective of OEM information:

Pollutant	Certified Emission Factors	Emission Factor Units	Emission Factor Source
NO_X	4.59	g/hp-hr	SCAQMD
CO	0.45	g/hp-hr	SCAQMD
VOC as NMHC	0.11	g/hp-hr	SCAQMD
PM	0.02	g/hp-hr	OEM Information

8. The Tier 4 emissions factor is representative for the particulate matter emissions to include the control technology. This technology is the combination of an oxidation catalyst and a diesel particulate filter.

9. 13 CCR 2281 limits the sulfur content of California diesel fuel to 15 ppmw (https://www.arb.ca.gov/fuels/diesel/081404dslregs.pdf). The following conversion factors were used to calculate a SO_2 emission factor from this sulfur content:

Density of Diesel Fuel (lb/gal):	7.05	[*AP-42* , Appendix A, Page A-6 (EPA 1985)]
Molecular Weight of Sulfur:	32	
Molecular Weight of SO_2:	64	

10. Ammonia emissions were estimated using EPA's Method 19 Equation 19-1 (EPA 2017), for which the SCR is assumed to have a 5 ppm ammonia slip, and the following conversion factors:

1 ppm NH_3:	4.42E-08	lb/dscf @ 0% O_2 Ratio of Molecular Weights
F-Factor (Distillate):	9,190	dscf/MMBtu
% O_2 in Stack:	15	%

11. Assumed similar to original design, as reflected in drawings provided by the Applicant's engineering contractor.

Appendix 3.3B, Table 6
Natural Gas Generator: Routine Operation Emissions - 0.45-MW Generator
Lightspeed SJC02
August 2021

Averaging Period	100% Load		75% Load		50% Load	
	Per Generator	224 Generator Total [e]	Per Generator	224 Generator Total [e]	Per Generator	224 Generator Total [e]
NO_X Emissions						
Hourly (lb/hr) [a]	0.04	8.73	0.03	6.55	0.02	4.37
Daily (lb/day) [b]	0.06	12.3	0.04	9.26	0.03	6.17
Monthly (lb/month) [c]	1.65	370	1.24	278	0.83	185
Annual (lb/year) [d]	19.8	4,444	14.9	3,333	9.92	2,222
Annual (tpy) [d]	9.92E-03	2.22	7.44E-03	1.67	4.96E-03	1.11
CO Emissions						
Hourly (lb/hr) [a]	0.75	168	0.56	126	0.38	84.2
Daily (lb/day) [b]	1.06	238	0.80	179	0.53	119
Monthly (lb/month) [c]	31.9	7,140	23.9	5,355	15.9	3,570
Annual (lb/year) [d]	383	85,685	287	64,264	191	42,843
Annual (tpy) [d]	0.19	42.8	0.14	32.1	0.10	21.4
VOC Emissions						
Hourly (lb/hr) [a]	0.05	10.3	0.03	7.73	0.02	5.16
Daily (lb/day) [b]	0.07	14.6	0.05	10.9	0.03	7.29
Monthly (lb/month) [c]	1.95	437	1.46	328	0.98	219
Annual (lb/year) [d]	23.4	5,248	17.6	3,936	11.7	2,624
Annual (tpy) [d]	0.01	2.62	8.79E-03	1.97	5.86E-03	1.31
SO_2 Emissions						
Hourly (lb/hr) [a]	3.85E-03	0.86	2.95E-03	0.66	2.12E-03	0.47
Daily (lb/day) [b]	0.01	1.22	4.18E-03	0.94	3.00E-03	0.67
Monthly (lb/month) [c]	0.16	36.6	0.13	28.1	0.09	20.1
Annual (lb/year) [d]	1.96	439	1.50	337	1.08	242
Annual (tpy) [d]	9.81E-04	0.22	7.52E-04	0.17	5.39E-04	0.12
NH_3 Emissions						
Hourly (lb/hr) [a]	N/A	N/A	N/A	N/A	N/A	N/A
Daily (lb/day) [b]	N/A	N/A	N/A	N/A	N/A	N/A
Monthly (lb/month) [c]	N/A	N/A	N/A	N/A	N/A	N/A
Annual (lb/year) [d]	N/A	N/A	N/A	N/A	N/A	N/A
Annual (tpy) [d]	N/A	N/A	N/A	N/A	N/A	N/A
PM Emissions						
Hourly (lb/hr) [a]	4.03E-03	0.90	3.02E-03	0.68	2.02E-03	0.45
Daily (lb/day) [b]	0.01	1.28	4.28E-03	0.96	2.85E-03	0.64
Monthly (lb/month) [c]	0.17	38.3	0.13	28.7	0.09	19.2
Annual (lb/year) [d]	2.05	460	1.54	345	1.03	230
Annual (tpy) [d]	1.03E-03	0.23	7.70E-04	0.17	5.13E-04	1.15E-01

Notes:

[a] The hourly emission rates assume a 15-minute startup period without control equipment operating for NO_X, CO, and VOC.

[b] The daily emission rates are the monthly emission rates averaged over 30 days.

[c] The monthly emission rates are the yearly emission rates averaged over 12 months.

[d] The annual emission rates assume a maximum of 509 hours of routine operation per year for each generator.

[e] Total generator emissions assume all 224 natural gas generators could operate concurrently.

Appendix 3.3B, Table 6
Natural Gas Generator: Routine Operation Emissions - 0.45-MW Generator
Lightspeed SJC02
August 2021

Dispersion Model Inputs	100% Load	75% Load	50% Load
Stack Height (ft)	13.00	13.00	13.00
Stack Diameter (ft)	0.71	0.71	0.71
Stack Temperature (°F)	950	900	850
Stack Velocity (ft/s)	89.20	65.34	46.16
Modeling Emissions (lb/hr)			
NO_X (1-hour) [a]	3.90E-02	2.92E-02	1.95E-02
NO_X (Annual)	2.26E-03	1.70E-03	1.13E-03
CO (1-hour) [a]	7.52E-01	5.64E-01	3.76E-01
CO (8-hour) [a]	7.52E-01	5.64E-01	3.76E-01
SO_2 (1-hour) [a]	3.85E-03	2.95E-03	2.12E-03
SO_2 (3-hour) [a]	3.85E-03	2.95E-03	2.12E-03
SO_2 (24-hour) [a]	3.85E-03	2.95E-03	2.12E-03
SO_2 (Annual)	2.24E-04	1.72E-04	1.23E-04
PM_{10} (24-hour) [a]	4.03E-03	3.02E-03	2.02E-03
PM_{10} (Annual)	2.34E-04	1.76E-04	1.17E-04
$PM_{2.5}$ (24-hour) [a]	4.03E-03	3.02E-03	2.02E-03
$PM_{2.5}$ (Annual)	2.34E-04	1.76E-04	1.17E-04

Notes:

[a] Modeled the emission rate for each 1-, 3-, 8- and 24-hour averaging period, as applicable, assuming that each generator could operate for 24-hours per day for RA purposes.

Appendix 3.3B, Table 7
Administrative Diesel Generator: Routine Operation Emissions - 1.25-MW Generator
Lightspeed SJC02
August 2021

Averaging Period	100% Load	75% Load	50% Load
NO_X Emissions			
Hourly (lb/hr) [a]	15.0	11.3	7.73
Daily (lb/day) [b]	1.75	1.32	0.90
Monthly (lb/month) [c]	52.4	39.6	27.0
Annual (lb/year) [d]	629	475	324
Annual (tpy) [d]	0.31	0.24	0.16
CO Emissions			
Hourly (lb/hr) [a]	3.16	2.39	1.63
Daily (lb/day) [b]	0.37	0.28	0.19
Monthly (lb/month) [c]	11.1	8.37	5.71
Annual (lb/year) [d]	133	100	68.5
Annual (tpy) [d]	0.07	0.05	0.03
VOC Emissions			
Hourly (lb/hr) [a]	2.36	1.79	1.22
Daily (lb/day) [b]	0.28	0.21	0.14
Monthly (lb/month) [c]	8.27	6.25	4.27
Annual (lb/year) [d]	99.3	75.0	51.2
Annual (tpy) [d]	0.05	0.04	0.03
SO_2 Emissions			
Hourly (lb/hr) [a]	0.02	0.01	0.01
Daily (lb/day) [b]	2.28E-03	1.67E-03	1.19E-03
Monthly (lb/month) [c]	0.07	0.05	0.04
Annual (lb/year) [d]	0.82	0.60	0.43
Annual (tpy) [d]	4.10E-04	3.00E-04	2.14E-04
NH_3 Emissions			
Hourly (lb/hr) [a]	0.09	0.07	0.05
Daily (lb/day) [b]	0.01	0.01	5.58E-03
Monthly (lb/month) [c]	0.32	0.23	0.17
Annual (lb/year) [d]	3.85	2.82	2.01
Annual (tpy) [d]	1.92E-03	1.41E-03	1.00E-03
PM Emissions			
Hourly (lb/hr) [a]	0.34	0.25	0.17
Daily (lb/day) [b]	0.04	0.03	0.02
Monthly (lb/month) [c]	1.18	0.89	0.61
Annual (lb/year) [d]	14.13	10.7	7.29
Annual (tpy) [d]	7.07E-03	5.34E-03	3.64E-03

Notes:

[a] The hourly emission rates are for the diesel generator in standby operation only (i.e., excludes startup or shutdown emissions).
[b] The daily emission rates are the monthly emission rates averaged over 30 days.
[c] The monthly emission rates are the yearly emission rates averaged over 12 months.

[d] The annual emission rates assume a maximum of 42 hours of routine operation per year for the one 1.25-MW generator.

Appendix 3.3B, Table 7
Administrative Diesel Generator: Routine Operation Emissions - 1.25-MW Generator
Lightspeed SJC02
August 2021

Dispersion Model Inputs	100% Load	75% Load	50% Load
Stack Height (ft)	20.0	20.0	20.0
Stack Diameter (ft)	0.83	0.83	0.83
Stack Temperature (°F)	1007	865	829
Stack Velocity (ft/s)	329.96	246.90	184.07
Modeling Emissions (lb/hr)			
NO_X (1-hour) [a]	15.0	11.3	7.73
NO_X (Annual)	0.07	0.05	0.04
CO (1-hour)	3.16	2.39	1.63
CO (8-hour) [b]	1.58	1.20	0.82
SO_2 (1-hour)	0.02	0.01	0.01
SO_2 (3-hour) [c]	0.02	0.01	0.01
SO_2 (24-hour) [b]	3.25E-03	2.38E-03	1.70E-03
SO_2 (Annual)	9.36E-05	6.85E-05	4.89E-05
PM_{10} (24-hour) [b]	5.61E-02	4.24E-02	2.89E-02
PM_{10} (Annual)	1.61E-03	1.22E-03	8.32E-04
$PM_{2.5}$ (24-hour) [b]	5.61E-02	4.24E-02	2.89E-02
$PM_{2.5}$ (Annual)	1.61E-03	1.22E-03	8.32E-04

Notes:

[a] For purposes of modeling, the generator can be classified as an intermittent source by the EPA because it will operate less than 500 hours per year (EPA 2011b). As a result, the annual average hourly emission rate was used in the 1-hour averaging period modeling analysis for demonstrating compliance with the NAAQS, consistent with EPA's *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard Memorandum* (EPA 2011b). Although not shown here, that value was calculated as follows: Presented 1-hour NO_2 Emission Rate (lb/hr) x 42 (hours/year) / 8,760 (hours/year).

[b] Modeled the emission rate for each 8- and 24-hour averaging period, as applicable, to demonstrate that the generator will only operate a maximum of 4 hours per day.

[c] The 3-hour SO_2 emission rate was set equal to the maximum 1-hour emission rate, based on the understanding that the generator could operate at the maximum 1-hour emission rate for 3 consecutive hours.

Appendix 3.3B, Table 8
Adminstrative Diesel Generator: Routine Operation Emissions - 0.5-MW Generator
Lightspeed SJC02
August 2021

Averaging Period	100% Load	75% Load	50% Load
NO_X Emissions			
Hourly (lb/hr) [a]	7.40	5.61	3.83
Daily (lb/day) [b]	0.86	0.65	0.45
Monthly (lb/month) [c]	25.9	19.6	13.4
Annual (lb/year) [d]	311	235	161
Annual (tpy) [d]	0.16	0.12	0.08
CO Emissions			
Hourly (lb/hr) [a]	0.73	0.55	0.38
Daily (lb/day) [b]	0.08	0.06	0.04
Monthly (lb/month) [c]	2.54	1.92	1.31
Annual (lb/year) [d]	30.5	23.1	15.8
Annual (tpy) [d]	0.02	0.01	7.88E-03
VOC Emissions			
Hourly (lb/hr) [a]	0.18	0.13	0.09
Daily (lb/day) [b]	0.02	0.02	0.01
Monthly (lb/month) [c]	0.62	0.47	0.32
Annual (lb/year) [d]	7.45	5.64	3.85
Annual (tpy) [d]	3.72E-03	2.82E-03	1.93E-03
SO_2 Emissions			
Hourly (lb/hr) [a]	0.01	0.01	3.98E-03
Daily (lb/day) [b]	8.49E-04	6.34E-04	4.64E-04
Monthly (lb/month) [c]	0.03	0.02	0.01
Annual (lb/year) [d]	0.31	0.23	0.17
Annual (tpy) [d]	1.53E-04	1.14E-04	8.35E-05
NH_3 Emissions			
Hourly (lb/hr) [a]	0.03	0.03	0.02
Daily (lb/day) [b]	3.98E-03	2.98E-03	2.18E-03
Monthly (lb/month) [c]	0.12	0.09	0.07
Annual (lb/year) [d]	1.43	1.07	0.78
Annual (tpy) [d]	7.17E-04	5.36E-04	3.92E-04
PM Emissions			
Hourly (lb/hr) [a]	0.04	0.03	0.02
Daily (lb/day) [b]	4.14E-03	3.13E-03	2.14E-03
Monthly (lb/month) [c]	0.12	0.09	0.06
Annual (lb/year) [d]	1.49	1.13	0.77
Annual (tpy) [d]	7.45E-04	5.64E-04	3.85E-04

Notes:

[a] The hourly emission rates are for the diesel generator in standby operation only (i.e., excludes startup or shutdown emissions).

[b] The daily emission rates are the monthly emission rates averaged over 30 days.

[c] The monthly emission rates are the yearly emission rates averaged over 12 months.

[d] The annual emission rates assume a maximum of 42 hours of routine operation per year for the one 0.5-MW generator.

Appendix 3.3B, Table 8
Adminstrative Diesel Generator: Routine Operation Emissions - 0.5-MW Generator
Lightspeed SJC02
August 2021

Dispersion Model Inputs	100% Load	75% Load	50% Load
Stack Height (ft)	20.0	20.0	20.0
Stack Diameter (ft)	1.17	1.17	1.17
Stack Temperature (°F)	894	852	828
Stack Velocity (ft/s)	53.66	43.20	35.00
Modeling Emissions (lb/hr)			
NO_X (1-hour) [a]	7.40	5.61	3.83
NO_X (Annual)	0.04	0.03	0.02
CO (1-hour)	0.73	0.55	0.38
CO (8-hour) [b]	0.36	0.27	0.19
SO_2 (1-hour)	7.28E-03	5.44E-03	3.98E-03
SO_2 (3-hour) [c]	7.28E-03	5.44E-03	3.98E-03
SO_2 (24-hour) [b]	1.21E-03	9.06E-04	6.63E-04
SO_2 (Annual)	3.49E-05	2.61E-05	1.91E-05
PM_{10} (24-hour) [b]	5.91E-03	4.48E-03	3.06E-03
PM_{10} (Annual)	1.70E-04	1.29E-04	8.79E-05
$PM_{2.5}$ (24-hour) [b]	5.91E-03	4.48E-03	3.06E-03
$PM_{2.5}$ (Annual)	1.70E-04	1.29E-04	8.79E-05

Notes:

[a] For purposes of modeling, the generator can be classified as an intermittent source by the EPA because it will operate less than 500 hours per year (EPA 2011b). As a result, the annual average hourly emission rate was used in the 1-hour averaging period modeling analysis for demonstrating compliance with the NAAQS, consistent with EPA's *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard Memorandum* (EPA 2011b). Although not shown here, that value was calculated as follows: Presented 1-hour NO_2 Emission Rate (lb/hr) x 42 (hours/year) / 8,760 (hours/year).

[b] Modeled the emission rate for each 8- and 24-hour averaging period, as applicable, to demonstrate that the generator will only operate a maximum of 4 hours per day.

[c] The 3-hour SO_2 emission rate was set equal to the maximum 1-hour emission rate, based on the understanding that the generator could operate at the maximum 1-hour emission rate for 3 consecutive hours.

Appendix 3.3B, Table 9
Generators: Routine Operation Emissions - Air Toxics
Lightspeed SJC02
August 2021

Parameter	0.45-MW	1.25-MW	0.5-MW	Units
Number of Generators for Routine Operation	224	1	1	units
Annual Hours of Routine Operation per Unit	509	42	42	hrs/yr
Three Way Catalyst TAC Control Efficiency	94%	--	--	% reduction
Maximum Hourly Heat Input per Unit at 100% Load	5.5	12.7	4.7	MMBtu/hr
Maximum Annual Heat Input per Unit at 100% Load	2,818	535	199	MMBtu/yr

Pollutant	Uncontrolled NG Emission Factors [a]	Diesel Emission Factors [a]	Facility-Wide Emissions [b]			Controlled Per Generator Emissions (0.45-MW) [h]			Per Generator Emissions (1.25-MW)			Per Generator Emissions (0.5-MW)			Classification	
	lb/MMBtu		lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	TAC [c]	HAP [d]
Acenaphthene		4.68E-06	8.18E-05	3.44E-03	1.72E-06	0.00E+00	0.00E+00	0.00E+00	5.96E-05	2.50E-03	1.25E-06	2.22E-05	9.33E-04	4.67E-07	--	--
Acenaphthylene		9.23E-06	1.61E-04	6.78E-03	3.39E-06	0.00E+00	0.00E+00	0.00E+00	1.18E-04	4.94E-03	2.47E-06	4.38E-05	1.84E-03	9.20E-07	--	--
Acetaldehye	2.79E-03	2.52E-05	1.98E-01	1.00E+02	5.02E-02	8.80E-04	4.48E-01	2.24E-04	3.21E-04	1.35E-02	6.74E-06	1.20E-04	5.02E-03	2.51E-06	X	X
Acrolein	2.63E-03	7.88E-06	1.86E-01	9.46E+01	4.73E-02	8.30E-04	4.22E-01	2.11E-04	1.00E-04	4.22E-03	2.11E-06	3.74E-05	1.57E-03	7.86E-07	X	X
Ammonia [e]			1.26E-01	5.28E+00	2.64E-03	0.00E+00	0.00E+00	0.00E+00	9.16E-02	3.85E+00	1.92E-03	3.42E-02	1.43E+00	7.17E-04	X	--
Anthracene		1.23E-06	2.15E-05	9.03E-04	4.52E-07	0.00E+00	0.00E+00	0.00E+00	1.57E-05	6.58E-04	3.29E-07	5.84E-06	2.45E-04	1.23E-07	--	--
Benz(a)anthracene		6.22E-07	1.09E-05	4.57E-04	2.28E-07	0.00E+00	0.00E+00	0.00E+00	7.92E-06	3.33E-04	1.66E-07	2.95E-06	1.24E-04	6.20E-08	X	--
Benzene	1.58E-03	7.76E-04	1.25E-01	5.74E+01	2.87E-02	4.98E-04	2.54E-01	1.27E-04	9.88E-03	4.15E-01	2.08E-04	3.68E-03	1.55E-01	7.74E-05	X	X
Benzo(a)pyrene		2.57E-07	4.49E-06	1.89E-04	9.44E-08	0.00E+00	0.00E+00	0.00E+00	3.27E-06	1.37E-04	6.87E-08	1.22E-06	5.12E-05	2.56E-08	X	--
Benzo(b)fluoranthene		1.11E-06	1.94E-05	8.15E-04	4.08E-07	0.00E+00	0.00E+00	0.00E+00	1.41E-05	5.94E-04	2.97E-07	5.27E-06	2.21E-04	1.11E-07	X	--
Benzo(g,h,I)perylene		5.56E-07	9.72E-06	4.08E-04	2.04E-07	0.00E+00	0.00E+00	0.00E+00	7.08E-06	2.97E-04	1.49E-07	2.64E-06	1.11E-04	5.54E-08	--	--
Benzo(k)fluoranthene		2.18E-07	3.81E-06	1.60E-04	8.00E-08	0.00E+00	0.00E+00	0.00E+00	2.78E-06	1.17E-04	5.83E-08	1.03E-06	4.35E-05	2.17E-08	X	--
Chrysene		1.53E-06	2.68E-05	1.12E-03	5.62E-07	0.00E+00	0.00E+00	0.00E+00	1.95E-05	8.19E-04	4.09E-07	7.26E-06	3.05E-04	1.53E-07	X	--
Dibenz(a,h)anthracene		3.46E-07	6.05E-06	2.54E-04	1.27E-07	0.00E+00	0.00E+00	0.00E+00	4.41E-06	1.85E-04	9.25E-08	1.64E-06	6.90E-05	3.45E-08	X	--
Diesel Particulate Matter [e]			3.72E-01	1.56E+01	7.81E-03	0.00E+00	0.00E+00	0.00E+00	3.36E-01	1.41E+01	7.07E-03	3.55E-02	1.49E+00	7.45E-04	X	--
Fluoranthene		4.03E-06	7.05E-05	2.96E-03	1.48E-06	0.00E+00	0.00E+00	0.00E+00	5.13E-05	2.16E-03	1.08E-06	1.91E-05	8.04E-04	4.02E-07	--	--
Fluorene		1.28E-05	2.24E-04	9.40E-03	4.70E-06	0.00E+00	0.00E+00	0.00E+00	1.63E-04	6.85E-03	3.42E-06	6.08E-05	2.55E-03	1.28E-06	--	--
Formaldehyde	2.05E-02	7.89E-05	1.45E+00	7.37E+02	3.69E-01	6.47E-03	3.29E+00	1.65E-03	1.00E-03	4.22E-02	2.11E-05	3.75E-04	1.57E-02	7.87E-06	X	X
Indeno(1,2,3-cd)pyrene		4.14E-07	7.24E-06	3.04E-04	1.52E-07	0.00E+00	0.00E+00	0.00E+00	5.27E-06	2.21E-04	1.11E-07	1.97E-06	8.25E-05	4.13E-08	X	--
Naphthalene	9.71E-05	1.30E-04	9.13E-03	3.59E+00	1.79E-03	3.06E-05	1.56E-02	7.79E-06	1.66E-03	6.95E-02	3.48E-05	6.17E-04	2.59E-02	1.30E-05	X	X
Phenanthrene		4.08E-05	7.13E-04	3.00E-02	1.50E-05	0.00E+00	0.00E+00	0.00E+00	5.20E-04	2.18E-02	1.09E-05	1.94E-04	8.13E-03	4.07E-06	--	--
Propylene		2.79E-03	4.88E-02	2.05E+00	1.02E-03	0.00E+00	0.00E+00	0.00E+00	3.55E-02	1.49E+00	7.46E-04	1.32E-02	5.56E-01	2.78E-04	X	--
Pyrene		3.71E-06	6.49E-05	2.72E-03	1.36E-06	0.00E+00	0.00E+00	0.00E+00	4.73E-05	1.98E-03	9.92E-07	1.76E-05	7.40E-04	3.70E-07	--	--
Toluene	5.58E-04	2.81E-04	4.43E-02	2.03E+01	1.01E-02	1.76E-04	8.96E-02	4.48E-05	3.58E-03	1.50E-01	7.52E-05	1.33E-03	5.60E-02	2.80E-05	X	X
Total PAH	1.41E-04	2.12E-04	1.37E-02	5.23E+00	2.61E-03	4.45E-05	2.26E-02	1.13E-05	2.70E-03	1.13E-01	5.67E-05	1.01E-03	4.23E-02	2.11E-05	X	--
Xylenes	1.95E-04	1.93E-04	1.72E-02	7.15E+00	3.58E-03	6.15E-05	3.13E-02	1.57E-05	2.46E-03	1.03E-01	5.16E-05	9.16E-04	3.85E-02	1.92E-05	X	X
1,1,2,2-Tetrachloroethane	2.53E-05		1.79E-03	9.10E-01	4.55E-04	7.98E-06	4.06E-03	2.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,1,2-Trichloroethane	1.53E-05		1.08E-03	5.50E-01	2.75E-04	4.83E-06	2.46E-03	1.23E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,1-Dichloroethane	1.13E-05		7.98E-04	4.06E-01	2.03E-04	3.56E-06	1.81E-03	9.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	--
1,2-Dichloroethane	1.13E-05		7.98E-04	4.06E-01	2.03E-04	3.56E-06	1.81E-03	9.07E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
1,2-Dichloropropane	1.30E-05		9.18E-04	4.68E-01	2.34E-04	4.10E-06	2.09E-03	1.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
1,3-Butadiene	6.63E-04		4.68E-02	2.38E+01	1.19E-02	2.09E-04	1.06E-01	5.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,3-Dichloropropene	1.27E-05		8.97E-04	4.57E-01	2.28E-04	4.01E-06	2.04E-03	1.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	X
Butyr/isobutyraldehyde	4.86E-05		3.43E-03	1.75E+00	8.74E-04	1.53E-05	7.80E-03	3.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
Carbon Tetrachloride	1.77E-05		1.25E-03	6.37E-01	3.18E-04	5.58E-06	2.84E-03	1.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Chlorobenzene	1.29E-05		9.11E-04	4.64E-01	2.32E-04	4.07E-06	2.07E-03	1.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Chloroform	1.37E-05		9.68E-04	4.93E-01	2.46E-04	4.32E-06	2.20E-03	1.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Ethane	7.04E-02		4.97E+00	2.53E+03	1.27E+00	2.22E-02	1.13E+01	5.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
Ethylbenzene	2.48E-05		1.75E-03	8.92E-01	4.46E-04	7.82E-06	3.98E-03	1.99E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Ethylene Dibromide	2.13E-05		1.50E-03	7.66E-01	3.83E-04	6.72E-06	3.42E-03	1.71E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Methanol	3.06E-03		2.16E-01	1.10E+02	5.50E-02	9.65E-04	4.91E-01	2.46E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Methylene Chloride	4.12E-05		2.91E-03	1.48E+00	7.41E-04	1.30E-05	6.61E-03	3.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Styrene	1.19E-05		8.41E-04	4.28E-01	2.14E-04	3.75E-06	1.91E-03	9.55E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Vinyl Chloride	7.18E-06		5.07E-04	2.58E-01	1.29E-04	2.26E-06	1.15E-03	5.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
TOTAL HAPs			**2.31E+00**	**1.16E+03**	**5.81E-01**	**1.02E-02**	**5.18E+00**	**2.59E-03**	**1.90E-02**	**7.98E-01**	**3.99E-04**	**7.08E-03**	**2.97E-01**	**1.49E-04**		
TOTAL TACs [f]			**2.85E+00**	**1.18E+03**	**5.92E-01**	**1.02E-02**	**5.18E+00**	**2.59E-03**	**4.83E-01**	**2.03E+01**	**1.01E-02**	**9.00E-02**	**3.78E+00**	**1.89E-03**		
TOTAL Air Toxics [g]			**7.83E+00**	**3.72E+03**	**1.86E+00**	**3.24E-02**	**1.65E+01**	**8.25E-03**	**4.84E-01**	**2.03E+01**	**1.02E-02**	**9.03E-02**	**3.79E+00**	**1.90E-03**		

Notes:
[a] Unless otherwise noted, the emission factors are from Section 3.4, Tables 3.4-3 and 3.4-4 of *AP-42* (EPA 1996) for diesel and Section 3.2, Table 3.2-3 (EPA 2000) for natural gas.
[b] The only source of onsite air toxics is operation of the natural gas and administrative generators. It was conservatively assumed that all 224 natural gas generators and 2 administrative generators could operate concurrently for maintenance and testing and RA purposes, as applicable.
[c] The Toxic Air Contaminants (TACs) were identified per BAAQMD's Rule 2-5, Table 2-5-1 (http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Rules%20and%20Regs/reg%2002/rg0205.ashx).
[d] The Hazardous Air Pollutants (HAPs) were identified based on the EPA's list of HAPs (https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications).
[e] Diesel particulate matter (DPM) and ammonia emissions were estimated from the criteria pollutant PM and NH_3 emissions, respectively.
[f] Total TACs includes speciated polyaromatic hydrocarbons (PAHs) rather than the Total PAH result.
[g] Total Air Toxics includes results for DPM and speciated diesel exhaust pollutants rather than the Total PAH result, and were conservatively used for comparison to applicable regulatory thresholds.
[h] Natural gas toxics assume a 94% control efficiency due to the three way catalyst system, consistent with VOC control.

Appendix 3.3B, Table 10
Generators: Emergency Operation Emissions - Air Toxics
Lightspeed SJC02
August 2021

Parameter	0.45-MW	1.25-MW	0.5-MW	Units
Number of Generators for Routine Operation	224	1	1	units
Annual Hours of Emergency Operation per Unit	100	100	100	hrs/yr
Three Way Catalyst TAC Control Efficiency	94%	--	--	% reduction
Maximum Hourly Heat Input per Unit at 100% Load	5.5	12.7	4.7	MMBtu/hr
Maximum Annual Heat Input per Unit at 100% Load	554	1,274	475	MMBtu/yr

Pollutant	Uncontrolled NG Emission Factors [a]	Diesel Emission Factors [a]	Facility-Wide Emergency Emissions [b]			Controlled Per Generator Emissions (0.45-MW) [h]			Per Generator Emissions (1.25-MW)			Per Generator Emissions (0.5-MW)			Classification	
	lb/MMBtu	lb/MMBtu	lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	lb/hr	lb/yr	tpy	TAC [c]	HAP [d]
Acenaphthene		4.68E-06	8.18E-05	8.18E-03	4.09E-06	0.00E+00	0.00E+00	0.00E+00	5.96E-05	5.96E-03	2.98E-06	2.22E-05	2.22E-03	1.11E-06	--	--
Acenaphthylene		9.23E-06	1.61E-04	1.61E-02	8.07E-06	0.00E+00	0.00E+00	0.00E+00	1.18E-04	1.18E-02	5.88E-06	4.38E-05	4.38E-03	2.19E-06	--	--
Acetaldehye	2.79E-03	2.52E-05	1.98E-01	1.98E+01	9.88E-03	8.80E-04	8.80E-02	4.40E-05	3.21E-04	3.21E-02	1.60E-05	1.20E-04	1.20E-02	5.98E-06	X	X
Acrolein	2.63E-03	7.88E-06	1.86E-01	1.86E+01	9.30E-03	8.30E-04	8.30E-02	4.15E-05	1.00E-04	1.00E-02	5.02E-06	3.74E-05	3.74E-03	1.87E-06	X	X
Ammonia [e]			1.26E-01	1.26E+01	6.29E-03	0.00E+00	0.00E+00	0.00E+00	9.16E-02	9.16E+00	4.58E-03	3.42E-02	3.42E+00	1.71E-03	X	--
Anthracene		1.23E-06	2.15E-05	2.15E-03	1.08E-06	0.00E+00	0.00E+00	0.00E+00	1.57E-05	1.57E-03	7.83E-07	5.84E-06	5.84E-04	2.92E-07	--	--
Benz(a)anthracene		6.22E-07	1.09E-05	1.09E-03	5.44E-07	0.00E+00	0.00E+00	0.00E+00	7.92E-06	7.92E-04	3.96E-07	2.95E-06	2.95E-04	1.48E-07	X	--
Benzene	1.58E-03	7.76E-04	1.25E-01	1.25E+01	6.26E-03	4.98E-04	4.98E-02	2.49E-05	9.88E-03	9.88E-01	4.94E-04	3.68E-03	3.68E-01	1.84E-04	X	X
Benzo(a)pyrene		2.57E-07	4.49E-06	4.49E-04	2.25E-07	0.00E+00	0.00E+00	0.00E+00	3.27E-06	3.27E-04	1.64E-07	1.22E-06	1.22E-04	6.10E-08	X	--
Benzo(b)fluoranthene		1.11E-06	1.94E-05	1.94E-03	9.70E-07	0.00E+00	0.00E+00	0.00E+00	1.41E-05	1.41E-03	7.07E-07	5.27E-06	5.27E-04	2.63E-07	X	--
Benzo(g,h,I)perylene		5.56E-07	9.72E-06	9.72E-04	4.86E-07	0.00E+00	0.00E+00	0.00E+00	7.08E-06	7.08E-04	3.54E-07	2.64E-06	2.64E-04	1.32E-07	--	--
Benzo(k)fluoranthene		2.18E-07	3.81E-06	3.81E-04	1.91E-07	0.00E+00	0.00E+00	0.00E+00	2.78E-06	2.78E-04	1.39E-07	1.03E-06	1.03E-04	5.17E-08	X	--
Chrysene		1.53E-06	2.68E-05	2.68E-03	1.34E-06	0.00E+00	0.00E+00	0.00E+00	1.95E-05	1.95E-03	9.74E-07	7.26E-06	7.26E-04	3.63E-07	X	--
Dibenz(a,h)anthracene		3.46E-07	6.05E-06	6.05E-04	3.02E-07	0.00E+00	0.00E+00	0.00E+00	4.41E-06	4.41E-04	2.20E-07	1.64E-06	1.64E-04	8.21E-08	X	--
Diesel Particulate Matter [e]			3.72E-01	3.72E+01	1.86E-02	0.00E+00	0.00E+00	0.00E+00	3.36E-01	3.36E+01	1.68E-02	3.55E-02	3.55E+00	1.77E-03	X	--
Fluoranthene		4.03E-06	7.05E-05	7.05E-03	3.52E-06	0.00E+00	0.00E+00	0.00E+00	5.13E-05	5.13E-03	2.57E-06	1.91E-05	1.91E-03	9.57E-07	--	--
Fluorene		1.28E-05	2.24E-04	2.24E-02	1.12E-05	0.00E+00	0.00E+00	0.00E+00	1.63E-04	1.63E-02	8.15E-06	6.08E-05	6.08E-03	3.04E-06	--	--
Formaldehyde	2.05E-02	7.89E-05	1.45E+00	1.45E+02	7.25E-02	6.47E-03	6.47E-01	3.23E-04	1.00E-03	1.00E-01	5.02E-05	3.75E-04	3.75E-02	1.87E-05	X	X
Indeno(1,2,3-cd)pyrene		4.14E-07	7.24E-06	7.24E-04	3.62E-07	0.00E+00	0.00E+00	0.00E+00	5.27E-06	5.27E-04	2.64E-07	1.97E-06	1.97E-04	9.83E-08	X	--
Naphthalene	9.71E-05	1.30E-04	9.13E-03	9.13E-01	4.57E-04	3.06E-05	3.06E-03	1.53E-06	1.66E-03	1.66E-01	8.28E-05	6.17E-04	6.17E-02	3.09E-05	X	X
Phenanthrene		4.08E-05	7.13E-04	7.13E-02	3.57E-05	0.00E+00	0.00E+00	0.00E+00	5.20E-04	5.20E-02	2.60E-05	1.94E-04	1.94E-02	9.68E-06	--	--
Propylene		2.79E-03	4.88E-02	4.88E+00	2.44E-03	0.00E+00	0.00E+00	0.00E+00	3.55E-02	3.55E+00	1.78E-03	1.32E-02	1.32E+00	6.62E-04	X	--
Pyrene		3.71E-06	6.49E-05	6.49E-03	3.24E-06	0.00E+00	0.00E+00	0.00E+00	4.73E-05	4.73E-03	2.36E-06	1.76E-05	1.76E-03	8.81E-07	--	--
Toluene	5.58E-04	2.81E-04	4.43E-02	4.43E+00	2.22E-03	1.76E-04	1.76E-02	8.80E-06	3.58E-03	3.58E-01	1.79E-04	1.33E-03	1.33E-01	6.67E-05	X	X
Total PAH	1.41E-04	2.12E-04	1.37E-02	1.37E+00	6.83E-04	4.45E-05	4.45E-03	2.22E-06	2.70E-03	2.70E-01	1.35E-04	1.01E-03	1.01E-01	5.03E-05	X	--
Xylenes	1.95E-04	1.93E-04	1.72E-02	1.72E+00	8.58E-04	6.15E-05	6.15E-03	3.08E-06	2.46E-03	2.46E-01	1.23E-04	9.16E-04	9.16E-02	4.58E-05	X	X
1,1,2,2-Tetrachloroethane	2.53E-05		1.79E-03	1.79E-01	8.94E-05	7.98E-06	7.98E-04	3.99E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,1,2-Trichloroethane	1.53E-05		1.08E-03	1.08E-01	5.40E-05	4.83E-06	4.83E-04	2.41E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,1-Dichloroethane	1.13E-05		7.98E-04	7.98E-02	3.99E-05	3.56E-06	3.56E-04	1.78E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	--
1,2-Dichloroethane	1.13E-05		7.98E-04	7.98E-02	3.99E-05	3.56E-06	3.56E-04	1.78E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
1,2-Dichloropropane	1.30E-05		9.18E-04	9.18E-02	4.59E-05	4.10E-06	4.10E-04	2.05E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
1,3-Butadiene	6.63E-04		4.68E-02	4.68E+00	2.34E-03	2.09E-04	2.09E-02	1.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
1,3-Dichloropropene	1.27E-05		8.97E-04	8.97E-02	4.49E-05	4.01E-06	4.01E-04	2.00E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	X
Butyr/isobutyraldehyde	4.86E-05		3.43E-03	3.43E-01	1.72E-04	1.53E-05	1.53E-03	7.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
Carbon Tetrachloride	1.77E-05		1.25E-03	1.25E-01	6.25E-05	5.58E-06	5.58E-04	2.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Chlorobenzene	1.29E-05		9.11E-04	9.11E-02	4.56E-05	4.07E-06	4.07E-04	2.03E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Chloroform	1.37E-05		9.68E-04	9.68E-02	4.84E-05	4.32E-06	4.32E-04	2.16E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Ethane	7.04E-02		4.97E+00	4.97E+02	2.49E-01	2.22E-02	2.22E+00	1.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	--	--
Ethylbenzene	2.48E-05		1.75E-03	1.75E-01	8.76E-05	7.82E-06	7.82E-04	3.91E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Ethylene Dibromide	2.13E-05		1.50E-03	1.50E-01	7.52E-05	6.72E-06	6.72E-04	3.36E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Methanol	3.06E-03		2.16E-01	2.16E+01	1.08E-02	9.65E-04	9.65E-02	4.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Methylene Chloride	4.12E-05		2.91E-03	2.91E-01	1.46E-04	1.30E-05	1.30E-03	6.50E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Styrene	1.19E-05		8.41E-04	8.41E-02	4.20E-05	3.75E-06	3.75E-04	1.88E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
Vinyl Chloride	7.18E-06		5.07E-04	5.07E-02	2.54E-05	2.26E-06	2.26E-04	1.13E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	X	X
TOTAL HAPs			**2.31E+00**	**2.31E+02**	**1.15E-01**	**1.02E-02**	**1.02E+00**	**5.09E-04**	**1.90E-02**	**1.90E+00**	**9.50E-04**	**7.08E-03**	**7.08E-01**	**3.54E-04**		
TOTAL TACs [f]			**2.85E+00**	**2.85E+02**	**1.43E-01**	**1.02E-02**	**1.02E+00**	**5.09E-04**	**4.83E-01**	**4.83E+01**	**2.41E-02**	**9.00E-02**	**9.00E+00**	**4.50E-03**		
TOTAL Air Toxics [g]			**7.83E+00**	**7.83E+02**	**3.92E-01**	**3.24E-02**	**3.24E+00**	**1.62E-03**	**4.84E-01**	**4.84E+01**	**2.42E-02**	**9.03E-02**	**9.03E+00**	**4.52E-03**		

Notes:
[a] Unless otherwise noted, the emission factors are from Section 3.4, Tables 3.4-3 and 3.4-4 of *AP-42* (EPA 1996) for diesel and Section 3.2, Table 3.2-3 (EPA 2000) for natural gas.
[b] The only source of onsite air toxics is operation of the natural gas and administrative generators. It was assumed that all 224 natural gas generators and 2 administrative generators could operate concurrently for emergency purposes.
[c] The TACs were identified per BAAQMD's Rule 2-5, Table 2-5-1 (http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/Rules%20and%20Regs/reg%2002/rg0205.ashx).
[d] The HAPs were identified based on the EPA's list of HAPs (https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications).
[e] DPM and ammonia emissions were estimated from the criteria pollutant PM and NH_3 emissions, respectively.
[f] Total TACs includes speciated PAHs rather than the Total PAH result.
[g] Total Air Toxics includes results for DPM and speciated diesel exhaust pollutants rather than the Total PAH result, and were conservatively used for comparison to applicable regulatory thresholds.
[h] Natural gas toxics assume a 94% control efficiency due to the three way catalyst system, consistent with VOC control.

Appendix 3.3B, Table 11
Generators: Operation Emissions - GHGs
Lightspeed SJC02
August 2021

Heat Input [a]

Total Generator Diesel Use (PTE):	734	MMBtu/yr
Total Generator Natural Gas Use (PTE):	631,130	MMBtu/yr

Note:

[a] The onsite GHGs result from operation of the natural gas and administrative generators. The heat input value is a sum of all generators, including 224 0.45-MW natural gas generators, one 1.25-MW diesel generator, and one 0.5-MW diesel generator.

GHG Emissions from Generator Operation

Pollutant	PTE Emissions (metric tons/year)
CO_2	33,542
CH_4	0.63
N_2O	0
CO_2 Equivalent (Total) [a]	33,577

Note:

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

CH_4 =	25
N_2O =	298

GHG Emission Factors [a]

Pollutant	Diesel Generator Emission Factor (kg/MMBtu)	Natural Gas Generator Emission Factor (kg/MMBtu)
CO_2	73.96	53.06
CH_4	3.00E-03	1.00E-03
N_2O	6.00E-04	1.00E-04

Note:
[a] Emission factors from 40 CFR 98, Tables C-1 and C-2.

Appendix 3.3B, Table 12
Offsite Vehicles: Operation Emissions - Criteria Pollutants and GHGs
Lightspeed SJC02
August 2021

Criteria Pollutant Emissions for Offsite Vehicle Operation

Emission Source	Number	Miles per Roundtrip [c]	Criteria Pollutant Emissions (lb/year) [d]					
			CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$
Operation Worker Commute [a]	100	21.6	1,508.93	23.30	4.55	108.95	80.17	33.05
Material Deliveries [b]	30	14.6	191.24	38.06	3.86	1,100.65	59.93	33.48
		Total (lb/year)	**1,700.18**	**61.36**	**8.41**	**1,209.59**	**140.10**	**66.53**

Notes:
[a] Number of operational staff (daily) based on engineering estimates.
[b] Number of material deliveries (daily) based on engineering estimates.
[c] Roundtrip miles/day for Operation Worker Commute and Material Deliveries taken as the Urban, San Francisco Bay Area Air Basin H-W and C-NW values, respectively, from Table 4.2 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).
[d] Calculations assume that workers would be onsite: 365 days/year

GHG Emissions for Offsite Vehicle Operation

Emission Source	Number	Miles per Roundtrip [c]	GHG Emissions (metric tons/year) [d]			CO_2 Equivalent Emissions (metric tons/year) [e]
			CO_2	N_2O	CH_4	
Operation Worker Commute [a]	100	21.6	241.70	0.0013	0.0041	242.18
Material Deliveries [b, f]	30	14.6	211.11	0.0069	0.0015	213.21
		Total (metric tons/year)	**452.82**	**0.0082**	**0.0056**	**455.39**

Notes:
[a] Number of operational staff (daily) based on engineering estimates.
[b] Number of material deliveries (daily) based on engineering estimates.
[c] Roundtrip miles/day for Operation Worker Commute and Material Deliveries taken as the Urban, San Francisco Bay Area Air Basin H-W and C-NW values, respectively, from Table 4.2 of Appendix D of the *CalEEMod User's Guide* (BREEZE 2021).
[d] Calculations assume that workers would be onsite: 365 days/year
[e] CO_2 equivalent emissions based on the following GWPs from 40 CFR 98, Table A-1:

CH_4: 25
N_2O: 298

[f] Idling CO_2 and CH_4 emissions are included for the material deliveries. Idling N_2O emissions were assumed negligible in the absence of an EMFAC-generated emission factor.

Appendix 3.3B, Table 13
Equations Used to Calculate Criteria Pollutant and GHG Emissions for Offsite Vehicles
Lightspeed SJC02
August 2021

Emission Source	Pollutant(s)	Equation	Variables
Operation Worker Commute and Material Deliveries Vehicle Exhaust	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	E = N x VMT x D x EF / 453.6	E = Emissions (lb/year)
			N = Number of vehicles per day
			VMT = Vehicle miles traveled per roundtrip (miles/trip). Assumes one vehicle trip per day.
			D = Number of operational days per year
			EF = EMFAC2017 emission factor (g/mile)
			453.6 = Conversion from g to lb
Material Deliveries Vehicle Idling	CO, VOC, NO_X, SO_X, PM_{10}, and $PM_{2.5}$	E = N x D x I x EF / 453.6	E = Emissions (lb/year)
			N = Number of vehicles per day
			D = Number of operational days per year
			I = Idle time per vehicle per day (idle-hr)
			EF = EMFAC2017 emission factor (g/idle-hr)
			453.6 = Conversion from g to lb
Operation Worker Commute and Material Deliveries Vehicle Exhaust	CO_2	E = N x VMT x D / FE x EF x 0.001	E = Emissions (metric tons/year)
			N = Number of vehicles per day
			VMT = Vehicle miles traveled per roundtrip (miles/trip). Assumes one vehicle trip per day.
			D = Number of operational days per year
			FE = Fuel economy (mpg)
			EF = Emission factor (kg/gallon)
			0.001 = Conversion from kg to metric tons
	CH_4 and N_2O	E = N x VMT x D x EF / 1,000 x 0.001	E = Emissions (metric tons/year)
			N = Number of vehicles per day
			VMT = Vehicle miles traveled per roundtrip (miles/trip). Assumes one vehicle trip per day.
			D = Number of operational days per year
			EF = Emission factor (g/mile)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons
Material Deliveries Vehicle Idling	CO_2 and CH_4	E = N x D x I x EF / 1,000 x 0.001	E = Emissions (metric tons/year)
			N = Number of vehicles per day
			D = Number of operational days per year
			I = Idle time per vehicle per day (idle-hr)
			EF = EMFAC2017 emission factor (g/idle-hr)
			1,000 = Conversion from g to kg
			0.001 = Conversion from kg to metric tons

Appendix 3.3B, Table 14
Offsite Vehicles: Operation Emission Factors - Criteria Pollutants
Lightspeed SJC02
August 2021

Offsite Vehicle Criteria Pollutant Emission Factors for Operation

Vehicle Type	Vehicle Class [a]	Exhaust Emission Factors (g/mile) [b, c]						Fuel Economy (mpg) [d]
		CO	VOC	SO_X	NO_X	PM_{10} [e]	$PM_{2.5}$ [e]	
Operation Worker Commute	Light-duty Auto/Truck	0.868	0.013	0.003	0.063	0.046	0.019	28.64
Material Deliveries	Heavy/Medium-duty Diesel	0.398	0.099	0.011	2.846	0.169	0.094	7.77
Vehicle Type	**Vehicle Class [a]**	**Idling Emission Factors (g/idle-hr) [c]**						**Idle Time (idle-hrs/day) [f]**
		CO	VOC	SO_X	NO_X	PM_{10} [e]	$PM_{2.5}$ [e]	
Material Deliveries	Heavy/Medium-duty Diesel	25.387	1.652	0.061	48.438	0.113	0.108	0.083

Notes:

[a] The vehicle classes are represented as follows:

Light-duty Auto/Truck: 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 2021), and assuming workers typically drive gasoline-fueled vehicles.

Heavy/Medium-duty Diesel: 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

[b] Although facility operations are not expected to begin until 2024, 2021 emission factors were used to provide a more conservative emissions estimate.

[c] Exhaust and idling emission factors from EMFAC2017 for the Santa Clara County, calendar year 2021. 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).

[d] Fuel economy from the EMFAC2017 Web Database (http://www.arb.ca.gov/emfac/2017/) for Santa Clara County, calendar year 2021, aggregated speed. Values were estimated by dividing the VMT (miles/day) by the Fuel Consumption (gal/day).

[e] Because of the small number of vehicles, it is assumed that the fugitive dust emissions from paved roads are negligible. As such, paved road emission factors are not included in these values.

[f] It is estimated that each material delivery vehicle idles for approximately 5 minutes each day.

Appendix 3.3B, Table 15
Offsite Vehicles: Operation Emission Factors - GHGs
Lightspeed SJC02
August 2021

Offsite Vehicle GHG Emission Factors for Operation

Fuel / Vehicle Category Type	Emission Factor	Emission Factor Units	Emission Factor Source
CO_2 Emission Factors			
Gasoline	8.78	kg CO_2/gallon	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.1. May.
Diesel	10.21	kg CO_2/gallon	
N_2O Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0016	g N2O/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Medium and Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0431	g N2O/mile	
CH_4 Emission Factors			
Gasoline Passenger Car Model Year 2018 [a]	0.0052	g CH_4/mile	The Climate Registry. 2021. *2021 Climate Registry Default Emission Factors*. Table 2.5. May.
Diesel Medium and Heavy-duty Truck Model Year 2007 - 2018 [a]	0.0095	g CH_4/mile	

Note:

[a] Model Year 2018 was the most recent year of emission factors available. As a result, it was assumed representative of vehicles used for this project.

Offsite Vehicle GHG Idling Emission Factors for Operation

Vehicle Type	Vehicle Class [a]	Idling Emission Factors (g/idle-hr) [b]		Idle Time (idle-hrs/day) [c]
		CO_2	CH_4	
Material Deliveries	Heavy/Medium-duty Diesel	1,112.535	0.005	0.083

Notes:

[a] The Heavy/Medium-duty Diesel vehicle class is represented as 50% HHDT DSL and 50% MHDT DSL values, per Section 4.5 of Appendix A of the *CalEEMod User's Guide* (BREEZE 2021).

[b] Idling emission factors from EMFAC2017 for Santa Clara County, calendar year 2021. 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] It is estimated that each material delivery vehicle idles for approximately 5 minutes each day.

Appendix 3.3B, Table 16
Facility Upkeep: Operation Emissions - Criteria Pollutants and GHGs
Lightspeed SJC02
August 2021

Criteria Pollutant Emissions for Facility Upkeep

Emission Source	Criteria Pollutant Emissions (tpy) [e]					
	CO	VOC	SO_X	NO_X	PM_{10}	$PM_{2.5}$
Area [a]	0.00	2.32	0.00	0.00	0.00	0.00
Energy [b]	0.43	0.06	0.00	0.51	0.04	0.04
Fuel Loading [c]	--	0.00	--	--	--	--
Waste [d]	0.00	0.00	0.00	0.00	0.00	0.00
Water [d]	0.00	0.00	0.00	0.00	0.00	0.00
Total (tpy)	**0.43**	**2.38**	**0.00**	**0.51**	**0.04**	**0.04**

Notes:
[a] The Area Category includes emissions from area coating, consumer product use, and landscaping.

[b] The Energy Category only includes emissions from natural gas use for comfort heating as CalEEMod does not estimate criteria pollutant emissions from electricity use.

[c] Emissions released from the transfer of diesel fuel from the storage tank to the 2 administrative generators is estimated assuming 0.028 pounds of VOCs per 1,000 gallons for loading, storing, dispensing, and spills or leaks. This assumption is from the SCAQMD's *Supplemental Instructions for Liquid Organic Storage Tanks Annual Emissions Reporting Program* (SCAQMD 2017).

[d] CalEEMod does not estimate criteria pollutant emissions from waste generation or water use. Therefore, there are no expected criteria pollutant emissions from the Waste or Water Categories.

[e] Emissions, except from fuel loading, were estimated using CalEEMod (v. 2016.3.2), based on the square footage of buildings to be constructed and paved areas, as detailed below.

GHG Emissions for Facility Upkeep

Emission Source	GHG Emissions (metric tons/year) [e]			
	CO_2	N_2O	CH_4	CO_2e Equivalent
Area [a]	0.01	0.00	0.00	0.01
Energy [b]	252,849.16	2.37	11.42	253,841.03
Refrigerant Usage [c, d]	--	--	--	244.11
Waste	99.91	0.00	5.90	247.51
Water	330.34	0.14	5.70	513.74
Total (metric tons/year)	**253,279.42**	**2.51**	**23.03**	**254,846.41**

Notes:
[a] The Area Category includes emissions from architectural coating, consumer product use, and landscaping.
[b] The Energy Category accounts for electricity use and natural gas use for comfort heating.

[c] Emissions from refrigerant use are from cooling units for the buildings onsite, as detailed below. The primary refrigerant used is R-410A, wich is a 1:1 mixture of HFC-125 and HFC-32. A maximum leak rate of 20% was assumed, per 40 CFR 82.157(c)(2)(i).

[d] GWP of R-410A calculated from the GWPs of HFC-125 and HFC-32, as provided in the Intergovernmental Panel on Climate Change's (IPCC) Fifth Assessment Report (IPCC 2014):

Refrigerant	GWP
HFC-125	3,170
HFC-32	677
R-410A	1,923.5

[e] Emissions were estimated using CalEEMod (v. 2016.3.2), based on the square footage of buildings to be constructed, paved areas, site-specific electricity intensity, and site-specific water use, as detailed below.

Appendix 3.3B, Table 16
Facility Upkeep: Operation Emissions - Criteria Pollutants and GHGs
Lightspeed SJC02
August 2021

Cooling Unit Details

Cooling Unit Type	Number of Units	Amount of R-410A per Unit (lbs)
Building SJC02 [a]		
Administrative Packaged Air Handling Unit	1	150
Administrative Split System Condensing Units	4	57
COLO1 Split System Condensing Units	8	10
COLO2 Split System Condensing Units	8	10
COLO3 Split System Condensing Units	8	10
COLO4 Split System Condensing Units	8	10
COLO5 Split System Condensing Units	8	10
Building SJC03 [b]		
Administrative Packaged Air Handling Unit	1	150
Administrative Split System Condensing Units	4	57
COLO1 Split System Condensing Units	8	10
COLO2 Split System Condensing Units	8	10
COLO3 Split System Condensing Units	8	10
Total Refrigerant	**74**	**1,396**

Notes:
[a] Building SJC02 cooling unit details provided by project engineers.
[b] Building SJC03 cooling unit details assumed similar to Building SJC03.

Appendix 3.3B, Table 16
Facility Upkeep: Operation Emissions - Criteria Pollutants and GHGs
Lightspeed SJC02
August 2021

Building and Paved Area Details [a, b]

Feature	Area (square feet)
Building 1 (SJC02)	244,676
Building 2 (SJC03)	152,238
Total Buildings	**396,914**
Road and Parking Areas	310,016
Sidewalks	42,403
Motorcycle Parking Spaces	144
Bicycle Parking Spaces	169
Outdoor Equipment Pads	84,721
Substation Area [c]	100,000
Total Paved Areas	**537,453**

Notes:
[a] Building area details taken from the site plan.
[b] Paved area details provided by project engineers.
[c] Substation Area assumes paving of only 50 percent.

Calculation of Electricity Intensity

Parameter	Value
Annual Electricity Use (kWh/yr) [a]	867,240,000
Building Area (square feet)	396,914
Electricity Intensity (kWh/sqft-yr)	**2,184.96**

Note:
[a] To provide maximum project flexibility, calculated as 99 MW x 8,760 hours per year of operation even though the project's electricity demand is expected to be approximately 77 MW.

Calculation of Water Use

Parameter	Value	Units
Recycled Water Use	535	acre-feet/year
Potable Water Use	1	acre-feet/year
Annual Water Use [a]	**174,656,136**	**gal/year**

Note:
[a] Based on the recycled and potable water demand for indoor use. Exterior water use is expected to be negligible due to drought-resistant landscaping.

Lightspeed SJC02 - Facility Upkeep

San Francisco Bay Area Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	396.91	1000sqft	9.11	396,914.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project details reflective of Santa Clara County. PG&E will be the local utility provider.

Land Use - Square footage taken as building areas from site plan.

Construction Phase - Construction emissions calculated external to this model.

Trips and VMT - Construction vehicle trip emissions calculated external to this model.

Grading - Grading emissions calculated external to this model.

Architectural Coating - Architectural coating emissions during construction calculated external to this model.

Vehicle Trips - Operational vehicle trip emissions calculated external to this model.

Area Coating - Paved area square footage added for parking areas, sidewalks, outdoor equipment areas, and the substation area, as provided by project engineers.

Energy Use - Electricity energy intensity calculated as the total possible annual electricity use (99 MW) divided by the building square footage. Natural gas use expected for comfort heating; default intensity values utilized.

Water And Wastewater - Indoor water use based on engineering estimates of recycled water demand (535 acre-feet/year) and potable water demand (1 acre-foot/year).

Solid Waste -

Operational Off-Road Equipment - Operational off-road equipment emissions calculated external to this model.

Stationary Sources - Emergency Generators and Fire Pumps - Operational stationary source emissions calculated external to this model.

Off-road Equipment -

Off-road Equipment -

Lightspeed SJC02 - Facility Upkeep - San Francisco Bay Area Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	198,457.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	595,371.00	0.00
tblAreaCoating	Area_Parking	0	537453
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	NT24E	3.70	2,184.96
tblEnergyUse	T24E	1.48	0.00
tblLandUse	LandUseSquareFeet	396,910.00	396,914.00
tblOffRoadEquipment	PhaseName		Grading
tblTripsAndVMT	VendorTripNumber	65.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	0.00
tblTripsAndVMT	WorkerTripNumber	20.00	0.00
tblTripsAndVMT	WorkerTripNumber	167.00	0.00
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblWater	IndoorWaterUseRate	91,785,437.50	174,656,136.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**			**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3218	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003
Energy	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			252,849.1638	11.4186	2.3705	253,841.0331
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000			99.9061	5.9043	0.0000	247.5130
Water						0.0000	0.0000		0.0000	0.0000			330.3404	5.7036	0.1370	513.7425
Total	**2.3783**	**0.5133**	**0.4348**	**3.0800e-003**	**0.0000**	**0.0390**	**0.0390**	**0.0000**	**0.0390**	**0.0390**			**253,279.4174**	**23.0265**	**2.5074**	**254,602.2962**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.3218	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003
Energy	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			252,849.1638	11.4186	2.3705	253,841.0331
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000			99.9061	5.9043	0.0000	247.5130
Water						0.0000	0.0000		0.0000	0.0000			330.3404	5.7036	0.1370	513.7425
Total	**2.3783**	**0.5133**	**0.4348**	**3.0800e-003**	**0.0000**	**0.0390**	**0.0390**	**0.0000**	**0.0390**	**0.0390**			**253,279.4174**	**23.0265**	**2.5074**	**254,602.2962**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2020	3/31/2020	5	0	
2	Site Preparation	Site Preparation	4/29/2020	4/28/2020	5	0	
3	Grading	Grading	5/13/2020	5/12/2020	5	0	
4	Building Construction	Building Construction	6/24/2020	6/23/2020	5	0	
5	Paving	Paving	8/18/2021	8/17/2021	5	0	
6	Architectural Coating	Architectural Coating	9/15/2021	9/14/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Lightspeed SJC02 - Facility Upkeep - San Francisco Bay Area Air Basin, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	0		367	0.48
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.575198	0.040076	0.193827	0.113296	0.016988	0.005361	0.017552	0.025197	0.002581	0.002349	0.005904	0.000881	0.000789

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			252,290.4132	11.4079	2.3602	253,278.9621
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			252,290.4132	11.4079	2.3602	253,278.9621
NaturalGas Mitigated	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			558.7506	0.0107	0.0102	562.0710
NaturalGas Unmitigated	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			558.7506	0.0107	0.0102	562.0710

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.04706e+007	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			558.7506	0.0107	0.0102	562.0710
Total		**0.0565**	**0.5133**	**0.4311**	**3.0800e-003**		**0.0390**	**0.0390**		**0.0390**	**0.0390**			**558.7506**	**0.0107**	**0.0102**	**562.0710**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.04706e+007	0.0565	0.5133	0.4311	3.0800e-003		0.0390	0.0390		0.0390	0.0390			558.7506	0.0107	0.0102	562.0710
Total		**0.0565**	**0.5133**	**0.4311**	**3.0800e-003**		**0.0390**	**0.0390**		**0.0390**	**0.0390**			**558.7506**	**0.0107**	**0.0102**	**562.0710**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	8.67241e+008	252,290.4132	11.4079	2.3602	253,278.9621
Total		**252,290.4132**	**11.4079**	**2.3602**	**253,278.9621**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	8.67241e+008	252,290.4132	11.4079	2.3602	253,278.9621
Total		**252,290.4132**	**11.4079**	**2.3602**	**253,278.9621**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3218	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003
Unmitigated	2.3218	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7713					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5502					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003
Total	**2.3218**	**3.0000e-005**	**3.6600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**			**7.0900e-003**	**2.0000e-005**	**0.0000**	**7.5600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7713					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5502					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	3.4000e-004	3.0000e-005	3.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005			7.0900e-003	2.0000e-005	0.0000	7.5600e-003
Total	**2.3218**	**3.0000e-005**	**3.6600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**			**7.0900e-003**	**2.0000e-005**	**0.0000**	**7.5600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	330.3404	5.7036	0.1370	513.7425
Unmitigated	330.3404	5.7036	0.1370	513.7425

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	174.656 / 0	330.3404	5.7036	0.1370	513.7425
Total		**330.3404**	**5.7036**	**0.1370**	**513.7425**