

**DOCKETED**

<b>Docket Number:</b>	22-SPPE-02
<b>Project Title:</b>	San Jose Data Center 04
<b>TN #:</b>	255059
<b>Document Title:</b>	AQ Memorandum Revised Construction Analysis - SJ04
<b>Description:</b>	N/A
<b>Filer:</b>	Scott Galati
<b>Organization:</b>	DayZenLLC
<b>Submitter Role:</b>	Applicant Representative
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**ATMOSPHERIC DYNAMICS, INC**  
Meteorological & Air Quality Modeling

## Memorandum

Date: March 5, 2024

To: Chad Mendell, Stantec

From: Greg Darwin, ADI

### **Subject: SJC04 Revised Construction Emissions Calculations**

Project construction emissions of CO, VOCs, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and CO<sub>2e</sub> were revised to reflect updated project schedules, equipment and manpower inventories. The revised scenarios included the following construction revisions:

- Construction of SJC04 and SJC06 during the same 25-month time frame, starting January 1, 2025, and ending on January 31<sup>st</sup>, 2027 (non-phased construction scenario)
- Construction of SJC04 over a 25-month period, starting January 1, 2025, and ending on January 31<sup>st</sup>, 2027 (phased construction scenario)
- Construction of SJC06 over a 25-month period, starting January 1, 2027, and ending on January 31<sup>st</sup>, 2029 (phased construction scenario)
- Overlap between the end of the phased construction of SJC04 and the beginning of the phased construction of SJC06 in January 2027
- Construction of the Reclaim water line for both SJC04 and SJC06 over a one (1) year period in 2025.

### **Assumptions:**

- Both construction options were assumed to start in January 2025. (This allowed for a consistent comparison of emissions.)
- The non-phased construction option assumed the entire facility was constructed in 25 months.
- The phased construction option assumed that each phase lasted for 25 months, with SJC04 constructed first, followed immediately by SJC06.
- SJC04 (Phase 1) incorporated by necessity the following support facilities: electrical substation, water storage tankage area, tank support building, as well as a majority of the parking and internal site access roads, etc.
- SJC06 (Phase 2) consisted primarily of the main building construction and its immediate parking lot and access areas.



- Construction of the Reclaim Water Line (offsite emissions) was also started and completed in 2025 as it is also necessary for the operation of both SJC04 and SJC06.
- The applicant supplied the revised cut and fill values (see note 9). A round trip (RT) mileage value for soil export from the site assumed a very high value of 150 miles (per the Applicant to accommodate hauling routes outside of the air basin).
- Due to item 4 above, a significant portion of the site preparation and grading activities will occur in Phase 1 (SJC04), but site prep and finish grading work may still be required for SJC06, therefore periods and equipment were still allocated for these activities in SJC06.
- Earthwork quantities were modified to reflect 123,167 cubic yards (y<sup>3</sup>) of cut, 17,100 y<sup>3</sup> of fill and 106,067 y<sup>3</sup> of export.

Detailed construction emission calculations are presented in Appendix AQ1. Onsite construction emissions from construction of the project will result from site preparation and grading activities, building erection and parking lot construction activities, “finish” construction activities, and the use of onsite construction equipment. As noted, Construction emissions from the project include emissions from the Reclaim water line and SJC04/SJC06. Offsite construction emissions will be derived primarily from materials transport to and from the site, worker travel, and construction of the reclaim water line. Emissions from the continuous approximate 25 month combined (non-phased) and 50-month construction period (phased for 25 months for SJC04 and 25 months for SJC06) were estimated using the CalEEMod program. Estimated criteria pollutant construction emissions for the project are summarized in the tables that follow this section. Comparisons were made with the BAAQMD CEQA Significance Thresholds in each table and the construction emissions are all less than significant. It should be noted that the revised construction emissions presented below are all less than the construction emission calculations presented in the original submittal of the SPPE.

The BAAQMD CEQA Air Quality Guidelines considers exposure of sensitive receptors to air pollutant levels that result in an unacceptable cancer risk or hazard to be significant. BAAQMD recommends a 1,000-foot zone of influence around project boundaries. Since construction activities are typically temporary and mitigation measures as delineated below are proposed to be implemented, and since there are no identified sensitive receptors within 1000 ft. of the site boundary, community risk impacts from the revised construction activities would be less than previously assessed and therefore, *less than significant*.



**Revised Microsoft Data Center (SJC04 and SJC06) Construction  
Scenario Emissions Summaries (Mitigated)**

SJC04/SJC06 **Non-Phased** Construction and Miscellaneous Post-Construction Operations Emissions Summary

Pollutant	ROG	NOx	CO	SO <sub>2</sub>	PM10 Fug	PM10 Exh	PM10 Total	PM2.5 Fug	PM2.5 Exh	PM2.5 Total	CO <sub>2e</sub>
<b>Period, tons</b>	3.42	3.03	5.41	.021	.361	.034	.395	.132	.033	.165	2203.7
<b>Max Yr, tons</b>	1.774	2.656	2.638	.0154	.288	.0274	.315	.110	.0264	.1364	1694.2
<b>Max Year</b>	2026	2025	2026	2025	2025	2025	2025	2025	2025	2025	2025
<b>Avg Max Month, lbs</b>	295.7	442.7	439.7	2.57	48	4.57	52.2	18.3	4.4	22.7	-
<b>Avg Max Day, lbs</b>	13.44	20.1	20	.117	2.18	.21	2.4	.83	.20	1.03	-
<b>BAAQMD CEQA Thresholds lbs/day</b>	54	54	--	--	--	82	--	--	54	--	--
<b>Exceeds Thresholds</b>	No	No	--	--	--	No	--	--	No	--	--
<b>Post-Const Ops, tpy</b>	2.35	.56	1.065	.00434	.06	.04	.10	.02	.04	.05	1921.5
<b>Notes:</b>											
Max month emissions are the max year emissions divided by 12.											
Max day emissions are the max month emissions divided by 22 (avg 22 work-days per month).											
Misc Ops emissions are for site use, etc., and do not included emissions for M&R Testing of the Emergency Engines.											



SJC04 (Phased) Phase 1 Construction and Miscellaneous Post-Construction Operations Emissions Summary

Pollutant	ROG	NOx	CO	SO <sub>2</sub>	PM10 Fug	PM10 Exh	PM10 Total	PM2.5 Fug	PM2.5 Exh	PM2.5 Total	CO <sub>2</sub> e
<b>Period, tons</b>	1.73	1.66	3.70	.012	.25	.02	.27	.01	.02	.12	1274.2
<b>Max Yr, tons</b>	.913	1.402	1.96	.0088	.21	.016	.225	.087	.015	.102	952.2
<b>Max Year</b>	2026	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
<b>Avg Max Month, lbs</b>	152.2	233.7	326.7	1.47	35	2.7	37.5	14.5	2.5	17	-
<b>Avg Max Day, lbs</b>	6.92	10.62	14.85	.067	1.59	.123	1.7	.66	.114	.773	-
<b>BAAQMD CEQA Thresholds lbs/day</b>	54	54	--	--	--	82	--	--	54	--	--
<b>Exceeds Thresholds</b>	No	No	--	--	--	No	--	--	No	--	--
<b>Post-Const Ops, tpy</b>	1.42	.273	.472	.002	.024	.02	.043	.0074	.02	.026	946.6
<b>Notes:</b>											
Max month emissions are the max year emissions divided by 12.											
Max day emissions are the max month emissions divided by 22 (avg 22 work-days per month).											
Misc Ops emissions are for site use, etc., and do not included emissions for M&R Testing of the Emergency Engines.											



SJC06 (Phased) Phase 2 Construction and Miscellaneous Post-Construction Operations Emissions Summary

Pollutant	ROG	NOx	CO	SO <sub>2</sub>	PM10 Fug	PM10 Exh	PM10 Total	PM2.5 Fug	PM2.5 Exh	PM2.5 Total	CO <sub>2</sub> e
<b>Period, tons</b>	1.7	1.53	2.45	.0097	.35	.016	.368	.095	.016	.11	1043
<b>Max Yr, tons</b>	1.62	1.28	1.02	.007	.222	.013	.235	.06	.012	.072	756.4
<b>Max Year</b>	2029	2027	2027	2027	2027	2027	2027	2027	2027	2027	2027
<b>Avg Max Month, lbs</b>	270	213.3	170	1.17	37	2.17	39.17	10	2	12	-
<b>Avg Max Day, lbs</b>	12.3	9.7	7.7	.053	1.7	.1	1.8	.45	.09	.55	-
<b>BAAQMD CEQA Thresholds lbs/day</b>	54	54	--	--	--	82	--	--	54	--	--
<b>Exceeds Thresholds</b>	No	No	--	--	--	No	--	--	No	--	--
<b>Post-Const Ops, tpy</b>	1.42	.271	.46	.002	.024	.019	.043	.0074	.019	.026	944
<b>Notes:</b>											
Max month emissions are the max year emissions divided by 12.											
Max day emissions are the max month emissions divided by 22 (avg 22 work-days per 30 day period).											
Misc Ops emissions are for site use, etc., and do not included emissions for M&R Testing of the Emergency Engines.											

SJC04/06 Reclaim Water Line Offsite Construction Emissions Summary

Pollutant	ROG	NOx	CO	SO <sub>2</sub>	PM10 Fug	PM10 Exh	PM10 Total	PM2.5 Fug	PM2.5 Exh	PM2.5 Total	CO <sub>2</sub> e
<b>Period, tons</b>	0.00892	0.0411	0.3599	0.00068	0.00564	0.00108	0.00672	0.00151	0.00108	0.00259	67.2
<b>Max Yr, tons</b>	0.00892	0.0411	0.3599	0.00068	0.00564	0.00108	0.00672	0.00151	0.00108	0.00259	67.2
<b>Max Year</b>	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
<b>Avg Max Month, lbs</b>	4.46	20.55	179.95	0.34	2.82	0.54	3.36	0.755	0.54	1.3	-
<b>Avg Max Day, lbs</b>	0.20	9.93	8.18	0.015	0.13	0.025	0.153	0.034	0.025	0.06	-
<b>BAAQMD CEQA Thresholds lbs/day</b>	54	54	--	--	--	82	--	--	54	--	--
<b>Exceeds Thresholds</b>	No	No	--	--	--	No	--	--	No	--	--
<b>Notes:</b>											
Max month emissions are the max year emissions divided by 4 (4 month construction period).											
Max day emissions are the max month emissions divided by 22 (avg 22 work-days per month).											



SJC0406 Phase 1 and 2 Overlap Construction Year (2027) Emissions

Pollutant	ROG	NOx	CO	SO <sub>2</sub>	PM10 Fug	PM10 Exh	PM10 Total	PM2.5 Fug	PM2.5 Exh	PM2.5 Total	CO2e
<b>Overlap Year, tons</b>	.788	1.29	1.19	.0071	.223	.0132	.236	.0604	.013	.073	780.9
<b>Avg Max Month, lbs</b>	131.3	215	198.3	1.18	37.2	2.2	39.3	10.1	2.17	12.17	-
<b>Avg Max Day, lbs</b>	5.97	9.77	9/01	.054	1.69	.10	1.79	.46	.10	.55	-
<b>BAAQMD CEQA Thresholds lbs/day</b>	54	54	--	--	--	82	--	--	54	--	--
<b>Exceeds Thresholds</b>	No	No	--	--	--	No	--	--	No	--	--

**Notes:**  
**Max month emissions are the max year emissions divided by 12.**  
**Max day emissions are the max month emissions divided by 22 (avg 22 work-days per month).**



**Attachment 1**  
**CalEEMod Outputs**



Microsoft SJC04 - Santa Clara County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Microsoft SJC04  
Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	308.30	1000sqft	15.57	308,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2028
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Data from Applicant.

Land Use - Bldg data supplied by Applicant. Parcel size supplied Applicant.

Phase SJC04 includes SJC04 bldg, substation area, water storage area, tank support bldg, and parking/access paved areas for bldg 1 only.

Construction Phase - Const start and end dates supplied by Applicant. All start dates and phase dates are tentative and represent best estimates.

Off-road Equipment - Best estimate Applicant/ADI.

Off-road Equipment - Best estimate Applicant/ADI. Other Const EQ = water truck

Off-road Equipment - There is no demo phase for SJC04.

Off-road Equipment - Best estimate Applicant/ADI. Other Const EQ = water truck.

Off-road Equipment - Best estimate Applicant/ADI.

Off-road Equipment - Best estimate Applicant and ADI. Other Const EQ = water truck.

Trips and VMT - Assumed 4 vndor materials deliveries per const day duiring bldg phase.

Haulign trips based on cut export, concrete deliveries, and asphalt deliveries.

On-road Fugitive Dust - road sikt loading from EPA-454/R-23-001w, March 2023.

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Demolition - No demolition phase.

Grading - Applicant data.

Architectural Coating - Default values assumed.

Vehicle Trips - Based on 79 RTs/day and  $308.30 \times 1000 \text{ ft}^2 = 0.256 = 0.26$  (rounded value)

Road Dust - See earlier reference for sil loading. There are no unpaved roads onsite.

Area Coating - Defaults assumed.

Landscape Equipment - Defaults assumed.

Water And Wastewater - Indoor use based on employee numbers, Outdoor use based on landscape calculations.

Solid Waste - Based on 72 employees each at 1.15 ton/yr  $\approx$  83 tpy

Land Use Change - Assumes ~94% of site is bldg, parking, access, and utilities, etc.

Construction Off-road Equipment Mitigation - Applicant assumed data based on const mix and EPA Tier at present.

Fleet Mix - Applicant estimates based on typical employee vehicles.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	300.00	413.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	76.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	33.00
tblGrading	AcresOfGrading	58.42	30.00
tblGrading	AcresOfGrading	30.11	15.57
tblGrading	MaterialExported	0.00	53,034.00
tblLandUse	LotAcreage	7.08	15.57
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.60
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	6.30
tblOffRoadEquipment	UsageHours	8.00	3.30
tblOffRoadEquipment	UsageHours	8.00	2.30
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	7.30
tblOffRoadEquipment	UsageHours	8.00	1.10
tblOffRoadEquipment	UsageHours	7.00	3.30
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	6.10
tblOffRoadEquipment	UsageHours	8.00	3.90
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblRoadDust	RoadSiltLoading	0.1	0.02

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tblSolidWaste	SolidWasteGenerationRate	286.72	83.00
tblTripsAndVMT	HaulingTripLength	20.00	150.00
tblTripsAndVMT	HaulingTripNumber	6,629.00	2,652.00
tblTripsAndVMT	HaulingTripNumber	0.00	770.00
tblTripsAndVMT	HaulingTripNumber	0.00	41.00
tblTripsAndVMT	VendorTripNumber	51.00	4.00
tblVehicleTrips	ST_TR	2.21	0.26
tblVehicleTrips	SU_TR	0.70	0.26
tblVehicleTrips	WD_TR	9.74	0.26
tblWater	IndoorWaterUseRate	54,795,314.51	489,000.00
tblWater	OutdoorWaterUseRate	33,584,225.02	1,793,000.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	9.35	52.22	-11.98	0.00	22.50	81.73	37.41	41.23	80.98	56.09	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2025	3-31-2025	0.9722	0.5635
2	4-1-2025	6-30-2025	1.0961	0.7545
3	7-1-2025	9-30-2025	0.2499	0.0670
4	10-1-2025	12-31-2025	0.2518	0.0689
5	1-1-2026	3-31-2026	0.2454	0.0665
6	4-1-2026	6-30-2026	0.2463	0.0654
7	7-1-2026	9-30-2026	0.2490	0.0661
8	10-1-2026	12-31-2026	1.1854	0.9233
9	1-1-2027	3-31-2027	0.8440	0.7725
		Highest	1.1854	0.9233







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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.3 Vegetation**

Vegetation

	CO2e
Category	MT
Vegetation Land Change	-82.9675
<b>Total</b>	<b>-82.9675</b>

**3.0 Construction Detail**

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2025	12/31/2024	5	0	No Demo Phase
2	Site Preparation	Site Preparation	1/1/2025	2/15/2025	5	33	
3	Grading	Grading	2/16/2025	6/2/2025	5	76	
4	Building Construction	Building Construction	6/3/2025	12/31/2026	5	413	
5	Paving	Paving	12/1/2026	1/28/2027	5	43	
6	Architectural Coating	Architectural Coating	12/1/2026	1/28/2027	5	43	

**Acres of Grading (Site Preparation Phase): 15.57**

**Acres of Grading (Grading Phase): 30**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 462,450; Non-Residential Outdoor: 154,150; Striped Parking Area: 0 (Architectural Coating – sqft)**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Graders	1	7.30	187	0.41
Site Preparation	Other Construction Equipment	1	7.80	172	0.42
Site Preparation	Rubber Tired Dozers	1	7.30	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	6.10	97	0.37
Grading	Excavators	2	6.30	158	0.38
Grading	Graders	1	3.20	187	0.41
Grading	Other Construction Equipment	1	7.90	172	0.42
Grading	Rubber Tired Dozers	1	4.70	247	0.40
Grading	Scrapers	2	1.10	367	0.48
Grading	Tractors/Loaders/Backhoes	2	4.70	97	0.37
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	3	3.30	89	0.20
Building Construction	Generator Sets	1	2.30	84	0.74
Building Construction	Other Construction Equipment	1	3.90	172	0.42
Building Construction	Tractors/Loaders/Backhoes	2	3.30	97	0.37
Building Construction	Welders	1	3.90	46	0.45
Paving	Pavers	1	7.60	130	0.42
Paving	Paving Equipment	2	6.70	132	0.36
Paving	Rollers	1	7.60	80	0.38
Paving	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Architectural Coating	Aerial Lifts	1	7.60	63	0.31
Architectural Coating	Air Compressors	2	7.60	78	0.48

**Trips and VMT**







































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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0272	0.0284	0.2631	5.7000e-004	0.0240	3.8000e-004	0.0244	7.4200e-003	3.5000e-004	7.7700e-003						53.1780
Unmitigated	0.0272	0.0284	0.2631	5.7000e-004	0.0240	3.8000e-004	0.0244	7.4200e-003	3.5000e-004	7.7700e-003						53.1780

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	80.16	80.16	80.16	191,558	191,558
Total	80.16	80.16	80.16	191,558	191,558

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.576295	0.056490	0.183529	0.114985	0.020137	0.005304	0.008188	0.006136	0.000868	0.000349	0.024273	0.000862	0.002585

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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						494.6186
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						494.6186
NaturalGas Mitigated	0.0269	0.2448	0.2057	1.4700e-003		0.0186	0.0186		0.0186	0.0186						268.1072
NaturalGas Unmitigated	0.0269	0.2448	0.2057	1.4700e-003		0.0186	0.0186		0.0186	0.0186						268.1072



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.29351e+006				494.6186
<b>Total</b>					<b>494.6186</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.29351e+006				494.6186
<b>Total</b>					<b>494.6186</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Use Low VOC Paint - Non-Residential Exterior

	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	1.3651	3.0000e-005	2.8300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8700e-003
Unmitigated	1.3651	3.0000e-005	2.8300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8700e-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	0.1608					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.2041					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8700e-003
<b>Total</b>	<b>1.3651</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.8700e-003</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

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	0.1608					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.2041					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8300e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8700e-003
<b>Total</b>	<b>1.3651</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.8700e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Use Reclaimed Water

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				0.9003
Unmitigated				1.4992

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.489 / 1.793				1.4992
<b>Total</b>					<b>1.4992</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.293791 / 1.0758				0.9003
<b>Total</b>					<b>0.9003</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				41.7408
Unmitigated				41.7408

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	83				41.7408
<b>Total</b>					<b>41.7408</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	83				41.7408
<b>Total</b>					<b>41.7408</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	::	::	::	-82.9675

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**11.1 Vegetation Land Change**

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	21.25 / 2				-82.9675
<b>Total</b>					<b>-82.9675</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Microsoft SJC06  
Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	308.30	1000sqft	6.30	308,300.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2030
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Applicant supplied start and phase times. Start and phased times are tentative and best estimates.

Land Use - SJC06 acres based on the buildout of SJC04. SJC06 is basically bldg construction and some prelinatny site prep and grading.

Construction Phase - Applicant best estimates of dates.

Off-road Equipment - Best estimates.

Off-road Equipment - Best estimates.

Off-road Equipment - No demolition phase.

Off-road Equipment - Best estimates.

Off-road Equipment - Best estimates.

Off-road Equipment - Best estimates.

Trips and VMT - Hauling trips based on: Soil export of 53034 cu.yd, concrete deliveries of 770, and asphlat deliveries of 46. Worker trips adjusted for lesser manpower schedule for SJC06.

Demolition - No demolition.



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading - See notes on SJC04.

Vehicle Trips - Based on SJC06 308.300 x 1000 ft2 and 79 trips per day.

Road Dust - See reference for the silt loading value in SJC04.

Area Coating - Defaults assumed.

Landscape Equipment - Defaults assumed.

Energy Use - Defaults assumed.

Water And Wastewater - Same calcs as SJC04.

Solid Waste - Same calcs as SJC04.

Construction Off-road Equipment Mitigation - Same ference as SJC04.

Area Mitigation - Same commetns as SJC04.

Fleet Mix - Based on typical employee vehicles.

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	230.00	405.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	78.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	10.00	32.00
tblGrading	AcresOfGrading	0.00	6.30
tblGrading	AcresOfGrading	0.00	6.30
tblGrading	MaterialExported	0.00	53,034.00
tblLandUse	LotAcreage	7.08	6.30
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	7.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	3.40
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.20
tblOffRoadEquipment	UsageHours	8.00	3.30
tblOffRoadEquipment	UsageHours	8.00	0.60
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	7.60
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	2.90
tblOffRoadEquipment	UsageHours	8.00	4.70
tblOffRoadEquipment	UsageHours	8.00	6.50
tblOffRoadEquipment	UsageHours	8.00	3.90
tblRoadDust	RoadSiltLoading	0.1	0.02
tblSolidWaste	SolidWasteGenerationRate	286.72	83.00
tblTripsAndVMT	HaulingTripLength	20.00	150.00
tblTripsAndVMT	HaulingTripNumber	6,629.00	2,652.00
tblTripsAndVMT	HaulingTripNumber	0.00	770.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblTripsAndVMT	HaulingTripNumber	0.00	46.00
tblTripsAndVMT	VendorTripNumber	51.00	4.00
tblVehicleTrips	ST_TR	2.21	0.26
tblVehicleTrips	SU_TR	0.70	0.26
tblVehicleTrips	WD_TR	9.74	0.26
tblWater	IndoorWaterUseRate	54,795,314.51	489,000.00
tblWater	OutdoorWaterUseRate	33,584,225.02	1,793,000.00

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	5.94	39.78	-10.12	0.00	1.49	76.29	13.66	0.68	75.45	30.94	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2027	5-31-2027	0.6052	0.5175
2	6-1-2027	8-31-2027	0.7985	0.6635
3	9-1-2027	11-30-2027	0.1878	0.0583
4	12-1-2027	2-29-2028	0.1879	0.0584
5	3-1-2028	5-31-2028	0.1885	0.0576
6	6-1-2028	8-31-2028	0.1879	0.0570
7	9-1-2028	11-30-2028	0.1871	0.0575
8	12-1-2028	2-28-2029	1.1144	0.9305
9	3-1-2029	5-31-2029	0.8311	0.7698
		Highest	1.1144	0.9305







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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.3 Vegetation**

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
<b>Total</b>	<b>0.0000</b>

**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	2/28/2027	2/28/2027	5	0	No Demo phase
2	Site Preparation	Site Preparation	3/1/2027	4/13/2027	5	32	
3	Grading	Grading	4/14/2027	7/30/2027	5	78	
4	Building Construction	Building Construction	7/31/2027	2/18/2029	5	405	
5	Paving	Paving	1/28/2029	3/28/2029	5	43	
6	Architectural Coating	Architectural Coating	1/28/2029	3/28/2029	5	43	

**Acres of Grading (Site Preparation Phase): 6.3**

**Acres of Grading (Grading Phase): 6.3**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 462,450; Non-Residential Outdoor: 154,150; Striped Parking Area: 0 (Architectural Coating – sqft)**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
Demolition	Excavators	0	0.00	158	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Graders	0	7.70	187	0.41
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	6.50	97	0.37
Grading	Excavators	1	6.20	158	0.38
Grading	Graders	0	0.00	187	0.41
Grading	Other Construction Equipment	1	7.90	172	0.42
Grading	Rubber Tired Dozers	0	4.70	247	0.40
Grading	Tractors/Loaders/Backhoes	1	4.70	97	0.37
Building Construction	Cranes	1	3.40	231	0.29
Building Construction	Forklifts	2	3.30	89	0.20
Building Construction	Generator Sets	0	0.60	84	0.74
Building Construction	Other Construction Equipment	1	3.90	172	0.42
Building Construction	Tractors/Loaders/Backhoes	1	2.90	97	0.37
Building Construction	Welders	1	3.90	46	0.45
Paving	Pavers	1	7.60	130	0.42
Paving	Paving Equipment	1	6.70	132	0.36
Paving	Rollers	1	7.60	80	0.38
Architectural Coating	Aerial Lifts	1	7.40	63	0.31
Architectural Coating	Air Compressors	2	7.40	78	0.48

**Trips and VMT**







































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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0256	0.0264	0.2507	5.4000e-004	0.0240	3.4000e-004	0.0244	7.4200e-003	3.2000e-004	7.7400e-003						50.8194
Unmitigated	0.0256	0.0264	0.2507	5.4000e-004	0.0240	3.4000e-004	0.0244	7.4200e-003	3.2000e-004	7.7400e-003						50.8194

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	80.16	80.16	80.16	191,558	191,558
Total	80.16	80.16	80.16	191,558	191,558

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.577192	0.056815	0.182253	0.115088	0.020149	0.005398	0.008219	0.006132	0.000852	0.000335	0.024205	0.000837	0.002526

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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						494.6186
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						494.6186
NaturalGas Mitigated	0.0269	0.2448	0.2057	1.4700e-003		0.0186	0.0186		0.0186	0.0186						268.1072
NaturalGas Unmitigated	0.0269	0.2448	0.2057	1.4700e-003		0.0186	0.0186		0.0186	0.0186						268.1072



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.29351e+006				494.6186
<b>Total</b>					<b>494.6186</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	5.29351e+006				494.6186
<b>Total</b>					<b>494.6186</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Use Low VOC Paint - Non-Residential Exterior

	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	1.3651	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8600e-003
Unmitigated	1.3651	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8600e-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	0.1608					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.2041					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8600e-003
<b>Total</b>	<b>1.3651</b>	<b>3.0000e-005</b>	<b>2.8200e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.8600e-003</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

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	0.1608					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	1.2041					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	2.6000e-004	3.0000e-005	2.8200e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005						5.8600e-003
<b>Total</b>	<b>1.3651</b>	<b>3.0000e-005</b>	<b>2.8200e-003</b>	<b>0.0000</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>						<b>5.8600e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Use Reclaimed Water

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				0.9003
Unmitigated				1.4992

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.489 / 1.793				1.4992
<b>Total</b>					<b>1.4992</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.293791 / 1.0758				0.9003
<b>Total</b>					<b>0.9003</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				41.7408
Unmitigated				41.7408

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	83				41.7408
<b>Total</b>					<b>41.7408</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	83				41.7408
<b>Total</b>					<b>41.7408</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	::	::	::	0.0000

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**11.1 Vegetation Land Change**

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	0 / 0				0.0000
<b>Total</b>					<b>0.0000</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

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**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	616.60	1000sqft	21.25	616,600.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2028
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Revised construction inputs for the non-phased construction project.

Land Use - Approx total floor area of the 2 data center bldgs

Construction Phase - 25 month construction schedule for the entire site with 2 bldgs

Off-road Equipment - Applicant estimates of equipment types, numbers, and use rates.

Off-road Equipment - Applicant estimate of equipment types, numbers, and use rates.

Off-road Equipment - No demolitionis proposed.

Off-road Equipment - Applicant best estimate of equipment type, numbers, use rates.

Off-road Equipment - Applicant best estimate of equipment types, numbers, and use rates.

Off-road Equipment - Applicant best estimate of equipment types, numbers. use rates.

Trips and VMT - Grading haul trips based on 106067 yd3 of export soil at 20 yd3 per load.

Bldg haul trips based concrete required.

Paving haul trips based on asphalt required.

On-road Fugitive Dust - EPA-454/R-23-001w, March 2023, Table 23-2

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Grading - Rough grading will occur during site prep phase.

Finish grading will occur during grading/foundation phase.

Site speed limit will be <=5 mph.

Architectural Coating - Defaults assumed

Vehicle Trips - Calculated value for all days (0.315 trips per 1000 sq.ft) based on DC floor area and employee number.

Road Dust - See previous note for silt loading value.

Consumer Products - Defaults assumed

Area Coating - Defaults assumed

Landscape Equipment - Defaults assumed

Energy Use - Defaults assumed

Water And Wastewater - Project values calculated based on employee data and landscaping data.

Solid Waste - Calculated based on 144 employees at 1.15 tpy/employee.

Construction Off-road Equipment Mitigation - Const equipment will meet current T4F stds.

Area Mitigation - Low VOC cleaning supplies and coatings will be used to comply with BAAQMD rules.

Fleet Mix - Best estimate of vehicle mix for operations (employee vehicles).

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	150	0
tblAreaCoating	Area_Nonresidential_Exterior	308300	0
tblAreaCoating	Area_Nonresidential_Interior	924900	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	100	150
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblAreaMitigation	UseLowVOCPaintParkingValue	0	150
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	100	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	370.00	431.00
tblConstructionPhase	NumDays	20.00	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblConstructionPhase	NumDays	35.00	61.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	10.00	30.00
tblGrading	AcresOfGrading	51.47	10.00
tblGrading	AcresOfGrading	37.69	21.25
tblGrading	MaterialExported	0.00	106,067.00
tblGrading	MeanVehicleSpeed	7.10	5.00
tblGrading	MeanVehicleSpeed	7.10	5.00
tblLandUse	LotAcreage	14.16	21.25
tblOffRoadEquipment	HorsePower	402.00	172.00
tblOffRoadEquipment	HorsePower	402.00	172.00
tblOffRoadEquipment	HorsePower	402.00	172.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	7.50
tblOffRoadEquipment	UsageHours	7.00	3.30
tblOffRoadEquipment	UsageHours	8.00	5.30
tblOffRoadEquipment	UsageHours	8.00	3.20
tblOffRoadEquipment	UsageHours	8.00	2.20

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	8.00	7.10
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	8.00	6.70
tblOffRoadEquipment	UsageHours	8.00	2.70
tblOffRoadEquipment	UsageHours	7.00	3.20
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	3.70
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblOnRoadDust	RoadSiltLoading	0.10	0.02
tblRoadDust	RoadSiltLoading	0.1	0.02
tblSolidWaste	SolidWasteGenerationRate	573.44	166.00
tblTripsAndVMT	HaulingTripLength	20.00	150.00
tblTripsAndVMT	HaulingTripNumber	13,258.00	5,303.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	101.00	4.00
tblVehicleTrips	ST_TR	2.21	0.32
tblVehicleTrips	SU_TR	0.70	0.32
tblVehicleTrips	WD_TR	9.74	0.32
tblWater	IndoorWaterUseRate	109,590,629.01	978,000.00
tblWater	OutdoorWaterUseRate	67,168,450.04	3,586,000.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.0 Emissions Summary**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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					
2025	0.2188	3.8082	2.3914	0.0154	0.3183	0.0803	0.3986	0.1713	0.0753	0.2466						1,536.6818
2026	1.8919	1.3901	2.2788	4.7300e-003	0.0294	0.0578	0.0872	0.0220	0.0544	0.0764						419.7171
2027	1.5549	0.1609	0.2789	4.6000e-004	6.4000e-004	7.2100e-003	7.8500e-003	4.9000e-004	6.8500e-003	7.3400e-003						40.3526
<b>Maximum</b>	<b>1.8919</b>	<b>3.8082</b>	<b>2.3914</b>	<b>0.0154</b>	<b>0.3183</b>	<b>0.0803</b>	<b>0.3986</b>	<b>0.1713</b>	<b>0.0753</b>	<b>0.2466</b>						<b>1,536.6818</b>

**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					
2025	0.1019	2.6564	2.6375	0.0154	0.2875	0.0274	0.3149	0.1100	0.0264	0.1364						1,536.6815
2026	1.7742	0.3348	2.4674	4.7300e-003	0.0717	5.6800e-003	0.0774	0.0220	5.6000e-003	0.0276						419.7168
2027	1.5409	0.0377	0.3098	4.6000e-004	1.5900e-003	6.7000e-004	2.2600e-003	4.9000e-004	6.6000e-004	1.1500e-003						40.3526
<b>Maximum</b>	<b>1.7742</b>	<b>2.6564</b>	<b>2.6375</b>	<b>0.0154</b>	<b>0.2875</b>	<b>0.0274</b>	<b>0.3149</b>	<b>0.1100</b>	<b>0.0264</b>	<b>0.1364</b>						<b>1,536.6815</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.78	43.48	-9.40	0.00	-3.58	76.77	20.08	31.61	76.07	50.00	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)
1	1-1-2025	3-31-2025	1.8807	1.4440
2	4-1-2025	6-30-2025	1.4071	1.0920
3	7-1-2025	9-30-2025	0.3544	0.0968
4	10-1-2025	12-31-2025	0.3570	0.0995
5	1-1-2026	3-31-2026	0.3476	0.0956
6	4-1-2026	6-30-2026	0.3490	0.0942
7	7-1-2026	9-30-2026	0.3528	0.0953
8	10-1-2026	12-31-2026	2.1647	1.7626
9	1-1-2027	3-31-2027	1.8093	1.6647
		Highest	2.1647	1.7626

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	2.4087	5.0000e-005	5.6500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						0.0117
Energy	0.0539	0.4897	0.4113	2.9400e-003		0.0372	0.0372		0.0372	0.0372						1,525.4517
Mobile	0.0669	0.0699	0.6477	1.4000e-003	0.0592	9.4000e-004	0.0601	0.0183	8.7000e-004	0.0191						130.8998
Waste						0.0000	0.0000		0.0000	0.0000						83.4817
Water						0.0000	0.0000		0.0000	0.0000						2.9984
<b>Total</b>	<b>2.5294</b>	<b>0.5596</b>	<b>1.0646</b>	<b>4.3400e-003</b>	<b>0.0592</b>	<b>0.0382</b>	<b>0.0973</b>	<b>0.0183</b>	<b>0.0381</b>	<b>0.0564</b>						<b>1,742.8433</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	2.2286	5.0000e-005	5.6500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						0.0117
Energy	0.0539	0.4897	0.4113	2.9400e-003		0.0372	0.0372		0.0372	0.0372						1,525.4517
Mobile	0.0669	0.0699	0.6477	1.4000e-003	0.0592	9.4000e-004	0.0601	0.0183	8.7000e-004	0.0191						130.8998
Waste						0.0000	0.0000		0.0000	0.0000						83.4817
Water						0.0000	0.0000		0.0000	0.0000						2.9984
<b>Total</b>	<b>2.3493</b>	<b>0.5596</b>	<b>1.0646</b>	<b>4.3400e-003</b>	<b>0.0592</b>	<b>0.0382</b>	<b>0.0973</b>	<b>0.0183</b>	<b>0.0381</b>	<b>0.0564</b>						<b>1,742.8433</b>

	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
<b>Percent Reduction</b>	<b>7.12</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2025	12/31/2024	5	0	No demolition proposed
2	Site Preparation	Site Preparation	1/1/2025	2/11/2025	5	30	
3	Grading	Grading	2/12/2025	5/7/2025	5	61	



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

4	Building Construction	Building Construction	5/8/2025	12/31/2026	5	431
5	Paving	Paving	12/1/2026	1/31/2027	5	44
6	Architectural Coating	Architectural Coating	12/1/2026	1/31/2027	5	44

**Acres of Grading (Site Preparation Phase): 21.25**

**Acres of Grading (Grading Phase): 10**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 924,900; Non-Residential Outdoor: 308,300; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Graders	2	6.70	187	0.41
Site Preparation	Off-Highway Trucks	1	6.70	172	0.38
Site Preparation	Rubber Tired Dozers	1	6.70	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Excavators	2	5.30	158	0.38
Grading	Graders	1	2.70	187	0.41
Grading	Off-Highway Trucks	1	8.00	172	0.38
Grading	Rubber Tired Dozers	2	2.70	247	0.40
Grading	Scrapers	1	2.70	367	0.48
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	2	3.30	231	0.29
Building Construction	Forklifts	4	3.20	89	0.20
Building Construction	Generator Sets	2	2.20	84	0.74
Building Construction	Off-Highway Trucks	1	4.10	172	0.38

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Building Construction	Tractors/Loaders/Backhoes	3	3.20	97	0.37
Building Construction	Welders	2	3.70	46	0.45
Paving	Pavers	2	7.10	130	0.42
Paving	Paving Equipment	2	7.10	132	0.36
Paving	Rollers	2	7.10	80	0.38
Paving	Tractors/Loaders/Backhoes	1	5.90	97	0.37
Architectural Coating	Aerial Lifts	2	7.10	63	0.31
Architectural Coating	Air Compressors	4	7.50	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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	9	23.00	1.00	5,303.00	10.80	7.30	150.00	LD_Mix	HDT_Mix	HHDT
Building Construction	14	197.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	6	39.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area





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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Grading - 2025**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Fugitive Dust					0.1326	0.0000	0.1326	0.0693	0.0000	0.0693							0.0000
Off-Road	0.0438	0.3951	0.4842	9.2000e-004		0.0169	0.0169		0.0155	0.0155							81.6593
<b>Total</b>	<b>0.0438</b>	<b>0.3951</b>	<b>0.4842</b>	<b>9.2000e-004</b>	<b>0.1326</b>	<b>0.0169</b>	<b>0.1495</b>	<b>0.0693</b>	<b>0.0155</b>	<b>0.0848</b>							<b>81.6593</b>

**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	0.0249	2.3874	0.3926	0.0112	0.0847	0.0219	0.1066	0.0451	0.0209	0.0660							1,162.5461
Vendor	3.0000e-005	1.3500e-003	4.1000e-004	1.0000e-005	6.0000e-005	1.0000e-005	7.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005							0.6133
Worker	1.5500e-003	9.8000e-004	0.0137	4.0000e-005	7.5000e-004	3.0000e-005	7.8000e-004	5.7000e-004	2.0000e-005	6.0000e-004							3.9978
<b>Total</b>	<b>0.0265</b>	<b>2.3898</b>	<b>0.4067</b>	<b>0.0112</b>	<b>0.0855</b>	<b>0.0219</b>	<b>0.1074</b>	<b>0.0457</b>	<b>0.0210</b>	<b>0.0666</b>							<b>1,167.1572</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.4 Grading - 2025**

**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					0.0597	0.0000	0.0597	0.0312	0.0000	0.0312							0.0000
Off-Road	0.0113	0.0491	0.5755	9.2000e-004		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003							81.6593
<b>Total</b>	<b>0.0113</b>	<b>0.0491</b>	<b>0.5755</b>	<b>9.2000e-004</b>	<b>0.0597</b>	<b>1.5100e-003</b>	<b>0.0612</b>	<b>0.0312</b>	<b>1.5100e-003</b>	<b>0.0327</b>							<b>81.6593</b>

**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	0.0249	2.3874	0.3926	0.0112	0.1431	0.0219	0.1650	0.0451	0.0209	0.0660							1,162.5461
Vendor	3.0000e-005	1.3500e-003	4.1000e-004	1.0000e-005	9.0000e-005	1.0000e-005	1.0000e-004	3.0000e-005	1.0000e-005	4.0000e-005							0.6133
Worker	1.5500e-003	9.8000e-004	0.0137	4.0000e-005	1.8700e-003	3.0000e-005	1.8900e-003	5.7000e-004	2.0000e-005	6.0000e-004							3.9978
<b>Total</b>	<b>0.0265</b>	<b>2.3898</b>	<b>0.4067</b>	<b>0.0112</b>	<b>0.1450</b>	<b>0.0219</b>	<b>0.1669</b>	<b>0.0457</b>	<b>0.0210</b>	<b>0.0666</b>							<b>1,167.1572</b>





























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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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	0.0669	0.0699	0.6477	1.4000e-003	0.0592	9.4000e-004	0.0601	0.0183	8.7000e-004	0.0191						130.8998
Unmitigated	0.0669	0.0699	0.6477	1.4000e-003	0.0592	9.4000e-004	0.0601	0.0183	8.7000e-004	0.0191						130.8998

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	197.31	197.31	197.31	471,527	471,527
Total	197.31	197.31	197.31	471,527	471,527

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.576295	0.056490	0.183529	0.114985	0.020137	0.005304	0.008188	0.006136	0.000868	0.000349	0.024273	0.000862	0.002585

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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						989.2372
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						989.2372
NaturalGas Mitigated	0.0539	0.4897	0.4113	2.9400e-003		0.0372	0.0372		0.0372	0.0372						536.2144
NaturalGas Unmitigated	0.0539	0.4897	0.4113	2.9400e-003		0.0372	0.0372		0.0372	0.0372						536.2144



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.0587e+007				989.2372
<b>Total</b>					<b>989.2372</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.0587e+007				989.2372
<b>Total</b>					<b>989.2372</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Interior



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

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	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	2.2281					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	5.2000e-004	5.0000e-005	5.6500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005						0.0117
<b>Total</b>	<b>2.2286</b>	<b>5.0000e-005</b>	<b>5.6500e-003</b>	<b>0.0000</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>		<b>2.0000e-005</b>	<b>2.0000e-005</b>						<b>0.0117</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				2.9984
Unmitigated				2.9984

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.978 / 3.586				2.9984
<b>Total</b>					<b>2.9984</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.978 / 3.586				2.9984
<b>Total</b>					<b>2.9984</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				83.4817
Unmitigated				83.4817

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	166				83.4817
<b>Total</b>					<b>83.4817</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	166				83.4817
<b>Total</b>					<b>83.4817</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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MSDC Reclaim Water Line - Santa Clara County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**MSDC Reclaim Water Line  
Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	15.84	1000sqft	2.73	15,840.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2026
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	203.98	<b>CH4 Intensity (lb/MW hr)</b>	0.033	<b>N2O Intensity (lb/MW hr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Analysis is for the offsite reclaim water line construction only. No operational emissions are calculated.

Land Use - Trench assumed sfc area =~15840 sq.ft. Corridor assumed sfc area is 2.73 acres.

Construction Phase - Best estimate of water line construction time.

Off-road Equipment - Best estimate of equipment and use rates.

Trips and VMT - Pipe deliveries ~1 every 2 days = 45 total or 0.5 deliveries per day

2000 yd<sup>3</sup> of cut hauled away for disposal, at 20 yd<sup>3</sup> per load = 100 loads

Worker trips calculated by CalEEMod.

On-road Fugitive Dust - Defaults used.

Demolition - No demolition will occur.

Grading - Trench cut material will be placed back into the trench subsequent to line installation.

Approx 2000 cy.yds. of cut material willbe hauled away for disposal.

Architectural Coating - No coatings required.

Vehicle Trips - No operational vehicle trips are required.

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Road Dust - No Unpaved roads will service the pipeline subsequent to installation.

Consumer Products - No consumer products required for pipeline operations.

Area Coating - No arch coatings required for pipeline operations.

Landscape Equipment - No landscaping req'd for pipeline operations.

Energy Use - Reclaim water pumping energy is included in the SJC04 analysis.

Water And Wastewater - Categories N/A to the RWL.

Solid Waste - No solid waste generation or water pipeline.

Construction Off-road Equipment Mitigation - Std trench mitigation (watering).

Fleet Mix - No operational vehicle trips are required.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	7920	0
tblAreaCoating	Area_Nonresidential_Interior	23760	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24NG	6.67	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24NG	19.51	0.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblLandUse	LotAcreage	0.36	2.73
tblOffRoadEquipment	HorsePower	158.00	187.00
tblOffRoadEquipment	HorsePower	89.00	247.00
tblOffRoadEquipment	LoadFactor	0.38	0.41
tblOffRoadEquipment	LoadFactor	0.20	0.40
tblRoadDust	MaterialMoistureContent	0.5	0
tblRoadDust	MaterialSiltContent	4.3	0
tblRoadDust	MeanVehicleSpeed	40	0
tblSolidWaste	LandfillCaptureGasFlare	94.00	0.00
tblSolidWaste	LandfillNoGasCapture	6.00	0.00
tblSolidWaste	SolidWasteGenerationRate	19.64	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	100.00
tblTripsAndVMT	VendorTripNumber	0.00	0.50
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TTP	28.00	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TTP	13.00	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TTP	59.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	0.00
tblVehicleTrips	ST_TR	6.42	0.00
tblVehicleTrips	SU_TR	5.09	0.00
tblVehicleTrips	WD_TR	3.93	0.00
tblWater	AerobicPercent	87.46	0.00

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	100.00
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToDistribute	1,272.00	0.00
tblWater	ElectricityIntensityFactorToSupply	2,117.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	3,663,000.00	0.00
tblWater	SepticTankPercent	10.33	0.00

**2.0 Emissions Summary**

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MSDC Reclaim Water Line - Santa Clara County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
Mobile	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						0.0000
Water						0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>

	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
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Trenching, pipe install, finishing	Trenching	3/1/2025	7/4/2025	5	90	Water line construction

**Acres of Grading (Site Preparation Phase): 0**

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**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**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Trenching, pipe install, finishing	Excavators	1	6.20	187	0.41
Trenching, pipe install, finishing	Forklifts	1	3.10	247	0.40
Trenching, pipe install, finishing	Other Construction Equipment	1	2.80	172	0.42
Trenching, pipe install, finishing	Rollers	1	1.80	80	0.38
Trenching, pipe install, finishing	Tractors/Loaders/Backhoes	1	6.20	97	0.37

**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
Trenching, pipe install, finishing	5	13.00	0.50	100.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Water Exposed Area





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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
Unmitigated	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

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

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.574685	0.056097	0.185093	0.115164	0.020188	0.005209	0.008091	0.006312	0.000884	0.000364	0.024358	0.000887	0.002668

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**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						0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000						0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000





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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	0				0.0000
<b>Total</b>					<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	0				0.0000
<b>Total</b>					<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



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**6.2 Area by SubCategory**

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	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
Landscaping	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>						<b>0.0000</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated				0.0000
Unmitigated				0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0				0.0000
<b>Total</b>					<b>0.0000</b>

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**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0 / 0				0.0000
<b>Total</b>					<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated				0.0000
Unmitigated				0.0000

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**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	0				0.0000
<b>Total</b>					<b>0.0000</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	0				0.0000
<b>Total</b>					<b>0.0000</b>

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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