

Appendix A

**Air Quality, Greenhouse Gas Emissions,
and Energy Modeling Calculations**

Master Modeling Assumptions & Inputs

University Avenue Housing ISMND

Project details

Construction Start (CMOD input)	2023	
Construction end	2024	
Total months of construction	15	months
Weeks per month	4	weeks
construction days per week	5	days
Total days of construction	300	days
First operational year (CMOD input)	2025	
Total project acerage	1.06	

Land Use

Land Use Type

Residential	CMOD input	value	unit	acres	sq ft
Apartments	Apartments Mid-rise	30	dwelling unit	0.79	30,000
Parking lot	Parking lot	52	parking spaces	0.27	

Construction Phasing

Construction Phase	Number of days (caleemod default)	Adjusted days per project timeline
Site Prep	2.00	3
Grading	4.00	5
Building Construction	200.00	265
Paving	10.00	13
Architectural Coatings	10.00	13
Total	226.00	300

Note: No demolition phase included. Adjusted caleemod default construction phasing to not exceed project timeline in PD

Operational Energy

Energy use	Non-title 24	CalEEMod default		Total
		Title 24		
Natural Gas (KBTU/size/year)		2,687	6,729	9,416
Electricity (KWhr/size/year)		98	3,054	3,152
Converted Natrual Gas to Electricity (KBTU to KWhr)		787	1,972	2,760
Total electricity (kwh/year)		886	5,026	5,912

<<<removed and converted to electricity

<<Input to CalEEMod
Operational Energy
Use (Electricity Energy
Intensity)

Conversion

1	KBTU/hr
0.2930711	kW

Project Characteristics

Construction starts May 2023 and is expected to be completed July 2024, operational year assumed first full year = 2025

Land Use

Land use type, unit amount, and square ft for apartments from applicant. 45 parking spaces per PD, update parking lot acreage to .27 to make total lot acreage amount be equal to 1.06 acres, per PD.

Construction - Phasing

No demo phasing per PD. Adjusted total construction days to match total project construction from PD (15 months construction, 5 days per week, 300 days of construction)

Construction - Equipment

All construction equipment for all phases is calemod default type, unit amount, and usage. Conservatively assumed to be typical of land use and similar to PD

Construction - Trips and VMT

Assume 6 haul trucks for hauling material on, off, and throughout site. Assume same as default for vendor trucks.

Operation - Energy

SMAQMD Tier 1 BMP 1, no natural gas infrastructure all electric. natural gas KBTU converted to KWhr and added to default electricity kwhr/size/year under non-title 24. No changes to lighting energy intensity default

Construction Mitigation

Construction mitigation applied per SMAQMD calemod guidance - SMAQMD ceqa guide page 3-8: water exposed area 2x a day, unpaved road 15 mph, clean paved road 9% PM reduction

Construction with SMAQMD Construction Best Management Practice reductions applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Year	lb/day									
2023	3	27	22	0	6	1	7	3	1	4
2024	32	18	24	0	0	1	1	0	1	1
Maximum	31.70	26.92	24.45	0.05	6.13	1.12	7.24	2.93	1.06	3.95

	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					
2023	0.1415	1.0738	1.1627	2.2000e-003	0.0319	0.0460	0.0778	0.0112	0.0443	0.0555	0.0000	184.2408	184.2408	0.0290	1.8200e-003	185.5063
2024	0.2684	0.5934	0.7068	1.3100e-003	0.0119	0.0240	0.0358	3.2100e-003	0.0231	0.0263	0.0000	110.3229	110.3229	0.0174	1.0200e-003	111.0620
Maximum	0.2684	1.0738	1.1627	2.2000e-003	0.0319	0.0460	0.0778	0.0112	0.0443	0.0555	0.0000	184.2408	184.2408	0.0290	1.8200e-003	185.5063

Operation w/ Implementation of SMAQMG GHG Tier 1 BMP 1 (all-electric). BMP 2 (EV charging) not quantified

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category	lb/day									
Area	0.83	0.03	2.48	0.00		0.01	0.01		0.01	0.01
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Mobile	0.51	0.49	4.10	0.01	0.88	0.01	0.89	0.24	0.01	0.24
Waste						0.00	0.00		0.00	0.00
Water						0.00	0.00		0.00	0.00
Total	1.34	0.52	6.58	0.01	0.88	0.02	0.90	0.24	0.02	0.26

	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	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	33.4335	33.4335	3.0800e-003	3.7000e-004	33.6218
Mobile	0.0722	0.0922	0.6587	1.3800e-003	0.1475	1.0900e-003	0.1486	0.0394	1.0200e-003	0.0405	0.0000	128.1447	128.1447	8.8600e-003	6.4100e-003	130.2773
Waste						0.0000	0.0000		0.0000	0.0000	2.8013	0.0000	2.8013	0.1656	0.0000	6.9400
Water						0.0000	0.0000		0.0000	0.0000	0.6916	2.2817	2.9733	2.5900e-003	1.5300e-003	3.4938
Total	0.2189	0.0957	0.9684	1.4000e-003	0.1475	2.8100e-003	0.1503	0.0394	2.7400e-003	0.0422	3.4928	164.3664	167.8592	0.1806	8.3100e-003	174.8517

Operational Energy Summary

Land Use	Electricity kWh/year	Electricity MWh/year	Diesel gallons/year	Gasoline gallons/year	therm/kbtu 100.000000
Residential Units	199,600	200	0.00	0.00	kBTU/MMBT 1000
Parking Lot Lighting	6,300	6	0.00	0.00	
Total	205,900	206	0	0	

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	199600	32.4105	2.9900e-003	3.6000e-004	32.5931
Parking Lot	6300	1.0230	9.0000e-005	1.0000e-005	1.0287
Total		33.4335	3.0800e-003	3.7000e-004	33.6218

Energy Calculations Summary

Operational Fuel Use Summary

Fuel Type	Fleet Mix (%)	Gallons per Mile	Annual VMT	Gallons
Gasoline	98.81%	23.90	398,113	9,401,211
Diesel	1.19%	8.36		39,527

Notes:

1. Fleet mix calculated from CalEEMod default values.
2. Gallons per mile calculated from EMFAC 2021.
3. Annual VMT obtained from CalEEMod output file.

Source: EMFAC2021 (v1.0.1) Emissions Inventory
Region Type: County
Region: Sacramento
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Gasoline Fuel Consumption 1,000 gallons/day	Diesel Fuel Consumption 1,000 gallons/day
Sacramento	2025	All Other B	Aggregate	Aggregate	Diesel	459.1525	24332.464	4086.458		2.758850969
Sacramento	2025	LDA	Aggregate	Aggregate	Gasoline	491398.3	18017007	2259540	617.4841021	
Sacramento	2025	LDA	Aggregate	Aggregate	Diesel	1553.179	41591.195	6423.396		0.962694975
Sacramento	2025	LDT1	Aggregate	Aggregate	Gasoline	48785.94	1547597.8	212712.2	63.33573387	
Sacramento	2025	LDT1	Aggregate	Aggregate	Diesel	18.32966	167.48915	51.70598		0.007047228
Sacramento	2025	LDT2	Aggregate	Aggregate	Gasoline	237055.1	8875175.1	1098484	375.8620765	
Sacramento	2025	LDT2	Aggregate	Aggregate	Diesel	742.8591	29745.885	3530.433		0.91511317
Sacramento	2025	LHD1	Aggregate	Aggregate	Gasoline	21064.7	760756.24	313832.7	79.20833646	
Sacramento	2025	LHD1	Aggregate	Aggregate	Diesel	14102.97	504881.71	177397.7		31.54107237
Sacramento	2025	LHD2	Aggregate	Aggregate	Gasoline	2913.053	105559.79	43400.14	12.19562128	
Sacramento	2025	LHD2	Aggregate	Aggregate	Diesel	5366.008	203025.01	67497.63		15.2890039
Sacramento	2025	MCY	Aggregate	Aggregate	Gasoline	26621.96	143679.22	53243.92	3.585081887	
Sacramento	2025	MDV	Aggregate	Aggregate	Gasoline	152263.9	5300161.2	691884.2	275.1075475	
Sacramento	2025	MDV	Aggregate	Aggregate	Diesel	2523.926	93387.597	11727.82		3.816626134
Sacramento	2025	MH	Aggregate	Aggregate	Gasoline	2699.2	24193.056	270.028	5.482646957	
Sacramento	2025	MH	Aggregate	Aggregate	Diesel	1085.673	9792.3616	108.5673		1.042222345
Sacramento	2025	Motor Coa	Aggregate	Aggregate	Diesel	96.2828	12872.052	2212.579		2.318553832
Sacramento	2025	OBUS	Aggregate	Aggregate	Gasoline	520.9637	22263.948	10423.44	4.68545612	
Sacramento	2025	PTO	Aggregate	Aggregate	Diesel	0	23918.819	0		4.778072245
Sacramento	2025	SBUS	Aggregate	Aggregate	Gasoline	120.8436	6367.6112	483.3745	0.628580268	
Sacramento	2025	SBUS	Aggregate	Aggregate	Diesel	978.3427	21557.862	14166.4		2.653029999
Sacramento	2025	T6 CAIRP h	Aggregate	Aggregate	Diesel	84.43564	17260.198	1940.331		1.755639203
Sacramento	2025	T6 CAIRP s	Aggregate	Aggregate	Diesel	77.68381	4535.4743	1785.174		0.499308551
Sacramento	2025	T6 instate l	Aggregate	Aggregate	Diesel	1768.445	92741.439	20959.97		10.42975712
Sacramento	2025	T6 instate s	Aggregate	Aggregate	Diesel	8365.227	337779.28	103415.7		39.76236362

Sacramento	2025 T6 OOS he	Aggregate	Aggregate	Diesel	40.09778	10210.897	921.447		1.029599414
Sacramento	2025 T6 OOS sm	Aggregate	Aggregate	Diesel	40.14341	2333.4557	922.4957		0.253329741
Sacramento	2025 T6 Public	Aggregate	Aggregate	Diesel	4371.277	177571.57	22424.65		22.54876914
Sacramento	2025 T6 Utility	Aggregate	Aggregate	Diesel	56.86646	2380.6773	727.8907		0.267054242
Sacramento	2025 T6TS	Aggregate	Aggregate	Gasoline	1996.7	93880.676	39949.98	20.20420805	
Sacramento	2025 T7 CAIRP	Aggregate	Aggregate	Diesel	929.9493	188597.96	21370.23		30.36721291
Sacramento	2025 T7 NNOOS	Aggregate	Aggregate	Diesel	819.5219	223562.82	18832.61		34.98741774
Sacramento	2025 T7 NOOS	Aggregate	Aggregate	Diesel	347.6814	81289.092	7989.719		13.02898585
Sacramento	2025 T7 Other P	Aggregate	Aggregate	Diesel	11.26841	2092.1876	184.3512		0.349865997
Sacramento	2025 T7 POAK	Aggregate	Aggregate	Diesel	37.31875	3714.9771	610.5347		0.633795723
Sacramento	2025 T7 Public	Aggregate	Aggregate	Diesel	4147.789	177768.39	21278.16		33.7475674
Sacramento	2025 T7 Single	Aggregate	Aggregate	Diesel	2054.519	117224.21	19353.57		19.93384124
Sacramento	2025 T7 SWCV	Aggregate	Aggregate	Diesel	285.4256	18514.447	1312.958		7.807676579
Sacramento	2025 T7 Tractor	Aggregate	Aggregate	Diesel	1028.071	77318.93	14937.88		12.56836859
Sacramento	2025 T7 Utility	Aggregate	Aggregate	Diesel	29.57644	1313.9289	378.5784		0.22505736
Sacramento	2025 T7IS	Aggregate	Aggregate	Gasoline	7.621424	193.64383	152.4894	0.05660207	
Sacramento	2025 UBUS	Aggregate	Aggregate	Gasoline	184.2324	13976.261	736.9297	2.974664125	
Sacramento	2025 UBUS	Aggregate	Aggregate	Diesel	6.215217	294.36372	24.86087		0.03113556

total **1460.81** **296.31**

mpg

TOTAL 37,412,588 21.3
Total (Gas) 34,910,811 23.9
Total (Diesel) 2,477,444 8.4

Annual VMT

398,113

	Mix (%)	Miles	Gallons
Gas	98.8%	393,385	9,401,211
Diesel	1.2%	4,728	39,527

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
All project land uses (residential + parking)	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

Gas 98.8%
Diesel 1.2%

Energy Calculations Summary

Construction Fuel Usage Summary

	Diesel	Gasoline	Diesel	Diesel
Construction Year	Off-road Equipment (gallons)	On-road (gallons)	On-road (gallons)	Combined
2022-2023	14,697	4,996	6	14,703

Total Gasoline	4,996	gallons
Total Diesel	14,703	gallons

2022 & 2023 Construction Offroad Equipment

Phase Name	Offroad Equipment	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Average Daily Factor	Diesel Fuel Usage
Site Preparation	Graders	1	8.00	187	0.41	3	0.6	49
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40	3	0.6	55
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37	3	0.6	23
Grading	Graders	1	8.00	187	0.41	5	0.6	98
Grading	Rubber Tired Dozers	1	8.00	247	0.40	5	0.6	126
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37	5	0.6	80
Building Construction	Cranes	1	6.00	231	0.29	265	0.6	3,201
Building Construction	Forklifts	1	6.00	89	0.20	265	0.6	851
Building Construction	Generator Sets	1	8.00	84	0.74	265	0.6	3,961
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37	265	0.6	1,715
Building Construction	Welders	3	8.00	46	0.45	265	0.6	3,957
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	13	0.6	12
Paving	Pavers	1	6.00	130	0.42	13	0.6	130
Paving	Paving Equipment	1	8.00	132	0.36	13	0.6	151
Paving	Rollers	1	7.00	80	0.38	13	0.6	85
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37	13	0.6	114
Architectural Coating	Air Compressors	1	6.00	78	0.48	13	0.6	89
TOTAL								14,697

Construction Phasing		
Construction Phase	Number of days (caleemod default)	Adjusted days per project timeline
Site Prep	2	3
Grading	4	5
Building Construction	200	265
Paving	10	13
Architectural Coatings	10	13
Total	226	300.00

Note: No demolition phase included. Adjusted caleemod default construction phasing to not exceed project timeline in PD. See master assumptions tab in larger excel assumption file

Trips and VMT**2022**

Phase Name	Daily Worker Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Hauling Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Total gallons of gasoline	Total gallons of diesel
Site Preparation	8.00	300.00	2400.00	0.00	10.00	6.50	20.00	20.00	15600	0	0	606	
Grading	10.00	300.00	3000.00	0.00	10.00	6.50	20.00	20.00	19500	0	0	757	
Building Construction	29.00	300.00	8700.00	6.00	10.00	6.50	20.00	20.00	56550	120	120	2,195	6
Paving	13.00	300.00	3900.00	0.00	10.00	6.50	20.00	20.00	25350	0	0	984	
Architectural Coating	6.00	300.00	1800.00	0.00	10.00	6.50	20.00	20.00	11700	0	0	454	
												4,996	6

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: County

Region: Sacramento

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdlYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Fuel gas 100 gallons/	Diesel gas 100 gallons/	Miles per gallon	Gasoline miles per gallon	Diesel miles per gallon
Sacramento	2023	LDA	Aggregate	Aggregate	Gasoline	495444.2	18039887	2281180	638.6074	0.00	28.25	25.76	6.07
Sacramento	2023	LDT1	Aggregate	Aggregate	Gasoline	51757.6	1638074	226418.4	68.83871	0.00	23.80		
Sacramento	2023	LDT2	Aggregate	Aggregate	Gasoline	228403.2	8495405	1060057	373.3643	0.00	22.75		
Sacramento	2023	T7 Tractor	Aggregate	Aggregate	Diesel	917.7543	74396.8	13334.97	0.00	12.25005	6.07		

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

University Avenue Housing Con + Op - Sacramento County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**University Avenue Housing Con + Op
Sacramento County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	45.00	Space	0.27	18,000.00	0
Apartment Mid Rise	30.00	Dwelling Unit	0.79	30,000.00	80

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	2			Operational Year	2025
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction starts May 2023 and is expected to be completed July 2024, operational year assumed first full year = 2025

Land Use - Land use type, unit amount, and square ft for apartments from applicant. 45 parking spaces per PD, update parking lot acreage to .27 to make total lot acreage amount be equal to 1.06 acres, per PD.

Construction Phase - No demo phasing per PD. Adjusted total construction days to match total project construction from PD (15 months construction, 5 days per week, 300 days of construction)

Off-road Equipment - No demolition phase, put 0 for all equipment unit amounts.

Trips and VMT - Assume 6 haul trucks for hauling material on, off, and throughout site. Assume same as default for vendor trucks.

Grading - Leave default

Architectural Coating -

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation - Construction mitigation applied per SMAQMD caleemod guidance - SMAQMD ceqa guide page 3-8: water exposed area 2x a day, unpaved road 15 mph, clean paved road 9% PM reduction

University Avenue Housing Con + Op - Sacramento County, Annual

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

Water Mitigation -

Area Coating -

Energy Use - SMAQMD Tier 1 BMP 1, no natural gas infrastructure all electric. natural gas KBTU converted to KWhr and added to default electricity kwhr/size/year under non-title 24. No changes to lighting energy intensity default

Stationary Sources - Emergency Generators and Fire Pumps EF -

Off-road Equipment - All construction equipment for all phases is caleemod default type, unit amount, and usage. Conservatively assumed to be typical of land use and similar to PD>

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	200.00	265.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	10.00	13.00
tblEnergyUse	NT24E	3,054.10	5,911.90
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	98.18	0.00
tblEnergyUse	T24NG	6,729.23	0.00
tblLandUse	LotAcreage	0.41	0.27
tblTripsAndVMT	HaulingTripNumber	0.00	6.00

2.0 Emissions Summary

University Avenue Housing Con + Op - Sacramento County, Annual

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					
2023	0.1416	1.0738	1.1627	2.2000e-003	0.0484	0.0460	0.0944	0.0188	0.0443	0.0631	0.0000	184.2410	184.2410	0.0290	1.8200e-003	185.5065
2024	0.2684	0.5934	0.7068	1.3100e-003	0.0128	0.0240	0.0368	3.4500e-003	0.0231	0.0265	0.0000	110.3230	110.3230	0.0174	1.0200e-003	111.0621
Maximum	0.2684	1.0738	1.1627	2.2000e-003	0.0484	0.0460	0.0944	0.0188	0.0443	0.0631	0.0000	184.2410	184.2410	0.0290	1.8200e-003	185.5065

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					
2023	0.1415	1.0738	1.1627	2.2000e-003	0.0319	0.0460	0.0778	0.0112	0.0443	0.0555	0.0000	184.2408	184.2408	0.0290	1.8200e-003	185.5063
2024	0.2684	0.5934	0.7068	1.3100e-003	0.0119	0.0240	0.0358	3.2100e-003	0.0231	0.0263	0.0000	110.3229	110.3229	0.0174	1.0200e-003	111.0620
Maximum	0.2684	1.0738	1.1627	2.2000e-003	0.0319	0.0460	0.0778	0.0112	0.0443	0.0555	0.0000	184.2408	184.2408	0.0290	1.8200e-003	185.5063

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	28.58	0.00	13.34	35.16	0.00	8.73	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	5-1-2023	7-31-2023	0.4642	0.4642
2	8-1-2023	10-31-2023	0.4493	0.4493
3	11-1-2023	1-31-2024	0.4412	0.4412
4	2-1-2024	4-30-2024	0.6414	0.6414
5	5-1-2024	7-31-2024	0.0599	0.0599
		Highest	0.6414	0.6414

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	33.4335	33.4335	3.0800e-003	3.7000e-004	33.6218
Mobile	0.0722	0.0922	0.6587	1.3800e-003	0.1475	1.0900e-003	0.1486	0.0394	1.0200e-003	0.0405	0.0000	128.1447	128.1447	8.8600e-003	6.4100e-003	130.2773
Waste						0.0000	0.0000		0.0000	0.0000	2.8013	0.0000	2.8013	0.1656	0.0000	6.9400
Water						0.0000	0.0000		0.0000	0.0000	0.6916	2.2817	2.9733	2.5900e-003	1.5300e-003	3.4938
Total	0.2189	0.0957	0.9684	1.4000e-003	0.1475	2.8100e-003	0.1503	0.0394	2.7400e-003	0.0422	3.4928	164.3664	167.8592	0.1806	8.3100e-003	174.8517

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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	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	33.4335	33.4335	3.0800e-003	3.7000e-004	33.6218
Mobile	0.0722	0.0922	0.6587	1.3800e-003	0.1475	1.0900e-003	0.1486	0.0394	1.0200e-003	0.0405	0.0000	128.1447	128.1447	8.8600e-003	6.4100e-003	130.2773
Waste						0.0000	0.0000		0.0000	0.0000	2.8013	0.0000	2.8013	0.1656	0.0000	6.9400
Water						0.0000	0.0000		0.0000	0.0000	0.6916	2.2817	2.9733	2.5900e-003	1.5300e-003	3.4938
Total	0.2189	0.0957	0.9684	1.4000e-003	0.1475	2.8100e-003	0.1503	0.0394	2.7400e-003	0.0422	3.4928	164.3664	167.8592	0.1806	8.3100e-003	174.8517

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	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	Site Preparation	Site Preparation	5/1/2023	5/3/2023	5	3	
2	Grading	Grading	5/3/2023	5/9/2023	5	5	
3	Building Construction	Building Construction	5/9/2023	5/13/2024	5	265	

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4	Paving	Paving	2/13/2024	2/29/2024	5	13
5	Architectural Coating	Architectural Coating	2/27/2024	3/14/2024	5	13

Acres of Grading (Site Preparation Phase): 2.81**Acres of Grading (Grading Phase): 5****Acres of Paving: 0.27****Residential Indoor: 60,750; Residential Outdoor: 20,250; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,080 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	29.00	6.00	6.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.3900e-003	0.0000	9.3900e-003	4.5100e-003	0.0000	4.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0186	9.9600e-003	3.0000e-005		7.6000e-004	7.6000e-004		7.0000e-004	7.0000e-004	0.0000	2.2671	2.2671	7.3000e-004	0.0000	2.2855
Total	1.7000e-003	0.0186	9.9600e-003	3.0000e-005	9.3900e-003	7.6000e-004	0.0102	4.5100e-003	7.0000e-004	5.2100e-003	0.0000	2.2671	2.2671	7.3000e-004	0.0000	2.2855

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

3.2 Site Preparation - 2023

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0698	0.0698	0.0000	0.0000	0.0705
Total	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0698	0.0698	0.0000	0.0000	0.0705

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					4.2300e-003	0.0000	4.2300e-003	2.0300e-003	0.0000	2.0300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-003	0.0186	9.9600e-003	3.0000e-005		7.6000e-004	7.6000e-004		7.0000e-004	7.0000e-004	0.0000	2.2671	2.2671	7.3000e-004	0.0000	2.2855
Total	1.7000e-003	0.0186	9.9600e-003	3.0000e-005	4.2300e-003	7.6000e-004	4.9900e-003	2.0300e-003	7.0000e-004	2.7300e-003	0.0000	2.2671	2.2671	7.3000e-004	0.0000	2.2855

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3.2 Site Preparation - 2023

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0698	0.0698	0.0000	0.0000	0.0705
Total	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0698	0.0698	0.0000	0.0000	0.0705

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0177	0.0000	0.0177	8.5600e-003	0.0000	8.5600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3300e-003	0.0362	0.0218	5.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	4.5260	4.5260	1.4600e-003	0.0000	4.5626
Total	3.3300e-003	0.0362	0.0218	5.0000e-005	0.0177	1.5100e-003	0.0192	8.5600e-003	1.3900e-003	9.9500e-003	0.0000	4.5260	4.5260	1.4600e-003	0.0000	4.5626

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	4.0000e-005	5.8000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1455	0.1455	0.0000	0.0000	0.1468
Total	7.0000e-005	4.0000e-005	5.8000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1455	0.1455	0.0000	0.0000	0.1468

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					7.9700e-003	0.0000	7.9700e-003	3.8500e-003	0.0000	3.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.3300e-003	0.0362	0.0218	5.0000e-005		1.5100e-003	1.5100e-003		1.3900e-003	1.3900e-003	0.0000	4.5260	4.5260	1.4600e-003	0.0000	4.5626
Total	3.3300e-003	0.0362	0.0218	5.0000e-005	7.9700e-003	1.5100e-003	9.4800e-003	3.8500e-003	1.3900e-003	5.2400e-003	0.0000	4.5260	4.5260	1.4600e-003	0.0000	4.5626

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****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	7.0000e-005	4.0000e-005	5.8000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1455	0.1455	0.0000	0.0000	0.1468
Total	7.0000e-005	4.0000e-005	5.8000e-004	0.0000	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1455	0.1455	0.0000	0.0000	0.1468

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1287	0.9895	1.0656	1.8600e-003		0.0435	0.0435		0.0420	0.0420	0.0000	153.4513	153.4513	0.0261	0.0000	154.1027
Total	0.1287	0.9895	1.0656	1.8600e-003		0.0435	0.0435		0.0420	0.0420	0.0000	153.4513	153.4513	0.0261	0.0000	154.1027

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	3.0000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1189	0.1189	0.0000	2.0000e-005	0.1246
Vendor	6.6000e-004	0.0247	7.4500e-003	1.0000e-004	2.9700e-003	1.3000e-004	3.1000e-003	8.6000e-004	1.3000e-004	9.8000e-004	0.0000	9.4033	9.4033	2.3000e-004	1.3800e-003	9.8203
Worker	7.0300e-003	4.3400e-003	0.0570	1.6000e-004	0.0180	1.0000e-004	0.0181	4.7900e-003	9.0000e-005	4.8700e-003	0.0000	14.2592	14.2592	4.6000e-004	4.1000e-004	14.3936
Total	7.7000e-003	0.0294	0.0645	2.6000e-004	0.0210	2.3000e-004	0.0212	5.6600e-003	2.2000e-004	5.8600e-003	0.0000	23.7813	23.7813	6.9000e-004	1.8100e-003	24.3384

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	0.1287	0.9895	1.0656	1.8600e-003		0.0435	0.0435		0.0420	0.0420	0.0000	153.4511	153.4511	0.0261	0.0000	154.1025
Total	0.1287	0.9895	1.0656	1.8600e-003		0.0435	0.0435		0.0420	0.0420	0.0000	153.4511	153.4511	0.0261	0.0000	154.1025

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3.4 Building Construction - 2023

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	1.0000e-005	3.0000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1189	0.1189	0.0000	2.0000e-005	0.1246
Vendor	6.6000e-004	0.0247	7.4500e-003	1.0000e-004	2.7800e-003	1.3000e-004	2.9100e-003	8.1000e-004	1.3000e-004	9.4000e-004	0.0000	9.4033	9.4033	2.3000e-004	1.3800e-003	9.8203
Worker	7.0300e-003	4.3400e-003	0.0570	1.6000e-004	0.0166	1.0000e-004	0.0167	4.4400e-003	9.0000e-005	4.5300e-003	0.0000	14.2592	14.2592	4.6000e-004	4.1000e-004	14.3936
Total	7.7000e-003	0.0294	0.0645	2.6000e-004	0.0194	2.3000e-004	0.0196	5.2600e-003	2.2000e-004	5.4800e-003	0.0000	23.7813	23.7813	6.9000e-004	1.8100e-003	24.3384

3.4 Building Construction - 2024

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	0.0682	0.5311	0.6008	1.0600e-003		0.0216	0.0216		0.0209	0.0209	0.0000	87.1734	87.1734	0.0145	0.0000	87.5363
Total	0.0682	0.5311	0.6008	1.0600e-003		0.0216	0.0216		0.0209	0.0209	0.0000	87.1734	87.1734	0.0145	0.0000	87.5363

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3.4 Building Construction - 2024

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	1.7000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0662	0.0662	0.0000	1.0000e-005	0.0694
Vendor	3.6000e-004	0.0138	4.1000e-003	5.0000e-005	1.6900e-003	7.0000e-005	1.7600e-003	4.9000e-004	7.0000e-005	5.6000e-004	0.0000	5.2401	5.2401	1.3000e-004	7.7000e-004	5.4729
Worker	3.7300e-003	2.2000e-003	0.0301	9.0000e-005	0.0102	5.0000e-005	0.0103	2.7200e-003	5.0000e-005	2.7700e-003	0.0000	7.8354	7.8354	2.4000e-004	2.2000e-004	7.9062
Total	4.0900e-003	0.0161	0.0342	1.4000e-004	0.0119	1.2000e-004	0.0121	3.2200e-003	1.2000e-004	3.3400e-003	0.0000	13.1417	13.1417	3.7000e-004	1.0000e-003	13.4485

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	0.0682	0.5311	0.6008	1.0600e-003		0.0216	0.0216		0.0209	0.0209	0.0000	87.1733	87.1733	0.0145	0.0000	87.5362
Total	0.0682	0.5311	0.6008	1.0600e-003		0.0216	0.0216		0.0209	0.0209	0.0000	87.1733	87.1733	0.0145	0.0000	87.5362

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3.4 Building Construction - 2024

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	1.7000e-004	3.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0662	0.0662	0.0000	1.0000e-005	0.0694
Vendor	3.6000e-004	0.0138	4.1000e-003	5.0000e-005	1.5800e-003	7.0000e-005	1.6500e-003	4.6000e-004	7.0000e-005	5.3000e-004	0.0000	5.2401	5.2401	1.3000e-004	7.7000e-004	5.4729
Worker	3.7300e-003	2.2000e-003	0.0301	9.0000e-005	9.4300e-003	5.0000e-005	9.4800e-003	2.5200e-003	5.0000e-005	2.5700e-003	0.0000	7.8354	7.8354	2.4000e-004	2.2000e-004	7.9062
Total	4.0900e-003	0.0161	0.0342	1.4000e-004	0.0110	1.2000e-004	0.0112	2.9800e-003	1.2000e-004	3.1100e-003	0.0000	13.1417	13.1417	3.7000e-004	1.0000e-003	13.4485

3.5 Paving - 2024

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	4.0200e-003	0.0381	0.0574	9.0000e-005		1.8300e-003	1.8300e-003		1.6900e-003	1.6900e-003	0.0000	7.6531	7.6531	2.4300e-003	0.0000	7.7138
Paving	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3700e-003	0.0381	0.0574	9.0000e-005		1.8300e-003	1.8300e-003		1.6900e-003	1.6900e-003	0.0000	7.6531	7.6531	2.4300e-003	0.0000	7.7138

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799
Total	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	6.2000e-004	0.0000	6.2000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799

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	4.0200e-003	0.0381	0.0574	9.0000e-005		1.8300e-003	1.8300e-003		1.6900e-003	1.6900e-003	0.0000	7.6531	7.6531	2.4300e-003	0.0000	7.7138
Paving	3.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3700e-003	0.0381	0.0574	9.0000e-005		1.8300e-003	1.8300e-003		1.6900e-003	1.6900e-003	0.0000	7.6531	7.6531	2.4300e-003	0.0000	7.7138

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3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	5.7000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799
Total	2.3000e-004	1.3000e-004	1.8300e-003	1.0000e-005	5.7000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4756	0.4756	1.0000e-005	1.0000e-005	0.4799

3.6 Architectural Coating - 2024

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	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1700e-003	7.9200e-003	0.0118	2.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620
Total	0.1914	7.9200e-003	0.0118	2.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620

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3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	8.4000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2195	0.2195	1.0000e-005	1.0000e-005	0.2215
Total	1.0000e-004	6.0000e-005	8.4000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2195	0.2195	1.0000e-005	1.0000e-005	0.2215

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	0.1902					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1700e-003	7.9200e-003	0.0118	2.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620
Total	0.1914	7.9200e-003	0.0118	2.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	8.4000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2195	0.2195	1.0000e-005	1.0000e-005	0.2215
Total	1.0000e-004	6.0000e-005	8.4000e-004	0.0000	2.6000e-004	0.0000	2.7000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2195	0.2195	1.0000e-005	1.0000e-005	0.2215

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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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
Category	tons/yr										MT/yr					
Mitigated	0.0722	0.0922	0.6587	1.3800e-003	0.1475	1.0900e-003	0.1486	0.0394	1.0200e-003	0.0405	0.0000	128.1447	128.1447	8.8600e-003	6.4100e-003	130.2773
Unmitigated	0.0722	0.0922	0.6587	1.3800e-003	0.1475	1.0900e-003	0.1486	0.0394	1.0200e-003	0.0405	0.0000	128.1447	128.1447	8.8600e-003	6.4100e-003	130.2773

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	163.20	147.30	122.70	398,113	398,113
Parking Lot	0.00	0.00	0.00		
Total	163.20	147.30	122.70	398,113	398,113

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
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Parking Lot	10.00	5.00	6.50	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
Apartments Mid Rise	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207
Parking Lot	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

5.0 Energy Detail

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

5.1 Mitigation Measures Energy

[illegible]

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

Unmitigated

[illegible]

Mitigated

[illegible]

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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			
Apartments Mid Rise	199600	32.4105	2.9900e-003	3.6000e-004	32.5931
Parking Lot	6300	1.0230	9.0000e-005	1.0000e-005	1.0287
Total		33.4335	3.0800e-003	3.7000e-004	33.6218

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	199600	32.4105	2.9900e-003	3.6000e-004	32.5931
Parking Lot	6300	1.0230	9.0000e-005	1.0000e-005	1.0287
Total		33.4335	3.0800e-003	3.7000e-004	33.6218

6.0 Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Unmitigated	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187

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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****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	0.0190					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.3300e-003	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Total	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187

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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	0.0190					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1183					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.3300e-003	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187
Total	0.1467	3.5700e-003	0.3097	2.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.5065	0.5065	4.9000e-004	0.0000	0.5187

7.0 Water Detail**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	2.9733	2.5900e-003	1.5300e-003	3.4938
Unmitigated	2.9733	2.5900e-003	1.5300e-003	3.4938

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	1.95462 / 1.23226	2.9733	2.5900e-003	1.5300e-003	3.4938
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.9733	2.5900e-003	1.5300e-003	3.4938

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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			
Apartments Mid Rise	1.95462 / 1.23226	2.9733	2.5900e-003	1.5300e-003	3.4938
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		2.9733	2.5900e-003	1.5300e-003	3.4938

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8013	0.1656	0.0000	6.9400
Unmitigated	2.8013	0.1656	0.0000	6.9400

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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			
Apartments Mid Rise	13.8	2.8013	0.1656	0.0000	6.9400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		2.8013	0.1656	0.0000	6.9400

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	13.8	2.8013	0.1656	0.0000	6.9400
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		2.8013	0.1656	0.0000	6.9400

9.0 Operational Offroad

University Avenue Housing Con + Op - Sacramento County, Annual

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

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

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

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**University Avenue Housing Con + Op
Sacramento County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	45.00	Space	0.27	18,000.00	0
Apartment Mid Rise	30.00	Dwelling Unit	0.79	30,000.00	80

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	2			Operational Year	2025
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	357.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction starts May 2023 and is expected to be completed July 2024, operational year assumed first full year = 2025

Land Use - Land use type, unit amount, and square ft for apartments from applicant. 45 parking spaces per PD, update parking lot acreage to .27 to make total lot acreage amount be equal to 1.06 acres, per PD.

Construction Phase - No demo phasing per PD. Adjusted total construction days to match total project construction from PD (15 months construction, 5 days per week, 300 days of construction)

Off-road Equipment - No demolition phase, put 0 for all equipment unit amounts.

Trips and VMT - Assume 6 haul trucks for hauling material on, off, and throughout site. Assume same as default for vendor trucks.

Grading - Leave default

Architectural Coating -

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation - Construction mitigation applied per SMAQMD caleemod guidance - SMAQMD ceqa guide page 3-8: water exposed area 2x a day, unpaved road 15 mph, clean paved road 9% PM reduction

University Avenue Housing Con + Op - Sacramento County, Summer

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

Water Mitigation -

Area Coating -

Energy Use - SMAQMD Tier 1 BMP 1, no natural gas infrastructure all electric. natural gas KBTU converted to KWhr and added to default electricity kwhr/size/year under non-title 24. No changes to lighting energy intensity default

Stationary Sources - Emergency Generators and Fire Pumps EF -

Off-road Equipment - All construction equipment for all phases is caleemod default type, unit amount, and usage. Conservatively assumed to be typical of land use and similar to PD>

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	3.00
tblConstructionPhase	NumDays	4.00	5.00
tblConstructionPhase	NumDays	200.00	265.00
tblConstructionPhase	NumDays	10.00	13.00
tblConstructionPhase	NumDays	10.00	13.00
tblEnergyUse	NT24E	3,054.10	5,911.90
tblEnergyUse	NT24NG	2,687.00	0.00
tblEnergyUse	T24E	98.18	0.00
tblEnergyUse	T24NG	6,729.23	0.00
tblLandUse	LotAcreage	0.41	0.27
tblTripsAndVMT	HaulingTripNumber	0.00	6.00

2.0 Emissions Summary

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction (Maximum Daily Emission)****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	lb/day										lb/day					
2023	2.9957	26.9217	22.4621	0.0465	13.4822	1.1219	14.5946	6.4648	1.0557	7.4882	0.0000	4,395.708 7	4,395.708 7	1.1878	0.0251	4,428.071 4
2024	31.6965	18.4881	24.4461	0.0429	0.4017	0.7959	1.1975	0.1074	0.7582	0.8656	0.0000	4,029.335 3	4,029.335 3	0.7722	0.0257	4,056.303 6
Maximum	31.6965	26.9217	24.4461	0.0465	13.4822	1.1219	14.5946	6.4648	1.0557	7.4882	0.0000	4,395.708 7	4,395.708 7	1.1878	0.0257	4,428.071 4

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	lb/day										lb/day					
2023	2.9957	26.9217	22.4621	0.0465	6.1316	1.1219	7.2440	2.9265	1.0557	3.9499	0.0000	4,395.708 7	4,395.708 7	1.1878	0.0251	4,428.071 4
2024	31.6965	18.4881	24.4461	0.0429	0.3708	0.7959	1.1667	0.0998	0.7582	0.8580	0.0000	4,029.335 3	4,029.335 3	0.7722	0.0257	4,056.303 6
Maximum	31.6965	26.9217	24.4461	0.0465	6.1316	1.1219	7.2440	2.9265	1.0557	3.9499	0.0000	4,395.708 7	4,395.708 7	1.1878	0.0257	4,428.071 4

University Avenue Housing Con + Op - Sacramento County, Summer

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	0.00	0.00	0.00	0.00	53.17	0.00	46.74	53.95	0.00	42.45	0.00	0.00	0.00	0.00	0.00	0.00

University Avenue Housing Con + Op - Sacramento County, Summer

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	lb/day										lb/day					
Area	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5139	0.4905	4.1020	8.6000e-003	0.8829	6.3100e-003	0.8892	0.2354	5.8900e-003	0.2413		876.7065	876.7065	0.0538	0.0392	889.7451
Total	1.3412	0.5190	6.5793	8.7300e-003	0.8829	0.0201	0.9030	0.2354	0.0196	0.2550	0.0000	881.1729	881.1729	0.0581	0.0392	894.3188

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	lb/day										lb/day					
Area	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.5139	0.4905	4.1020	8.6000e-003	0.8829	6.3100e-003	0.8892	0.2354	5.8900e-003	0.2413		876.7065	876.7065	0.0538	0.0392	889.7451
Total	1.3412	0.5190	6.5793	8.7300e-003	0.8829	0.0201	0.9030	0.2354	0.0196	0.2550	0.0000	881.1729	881.1729	0.0581	0.0392	894.3188

University Avenue Housing Con + Op - Sacramento County, Summer

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	0.00	0.00	0.00	0.00	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	Site Preparation	Site Preparation	5/1/2023	5/3/2023	5	3	
2	Grading	Grading	5/3/2023	5/9/2023	5	5	
3	Building Construction	Building Construction	5/9/2023	5/13/2024	5	265	
4	Paving	Paving	2/13/2024	2/29/2024	5	13	
5	Architectural Coating	Architectural Coating	2/27/2024	3/14/2024	5	13	

Acres of Grading (Site Preparation Phase): 2.81**Acres of Grading (Grading Phase): 5****Acres of Paving: 0.27****Residential Indoor: 60,750; Residential Outdoor: 20,250; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,080 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

University Avenue Housing Con + Op - Sacramento County, Summer

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

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	29.00	6.00	6.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2627	0.0000	6.2627	3.0037	0.0000	3.0037			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668		1,666.057 3	1,666.057 3	0.5388		1,679.528 2
Total	1.1339	12.4250	6.6420	0.0172	6.2627	0.5074	6.7700	3.0037	0.4668	3.4705		1,666.057 3	1,666.057 3	0.5388		1,679.528 2

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	lb/day										lb/day					
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
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
Worker	0.0269	0.0129	0.2174	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.2309	56.2309	1.5600e-003	1.4000e-003	56.6866
Total	0.0269	0.0129	0.2174	5.6000e-004	0.0609	3.1000e-004	0.0612	0.0161	2.9000e-004	0.0164		56.2309	56.2309	1.5600e-003	1.4000e-003	56.6866

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2023****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	lb/day										lb/day					
Fugitive Dust					2.8182	0.0000	2.8182	1.3517	0.0000	1.3517			0.0000			0.0000
Off-Road	1.1339	12.4250	6.6420	0.0172		0.5074	0.5074		0.4668	0.4668	0.0000	1,666.057 3	1,666.057 3	0.5388		1,679.528 2
Total	1.1339	12.4250	6.6420	0.0172	2.8182	0.5074	3.3256	1.3517	0.4668	1.8185	0.0000	1,666.057 3	1,666.057 3	0.5388		1,679.528 2

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	lb/day										lb/day					
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
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
Worker	0.0269	0.0129	0.2174	5.6000e-004	0.0561	3.1000e-004	0.0564	0.0150	2.9000e-004	0.0153		56.2309	56.2309	1.5600e-003	1.4000e-003	56.6866
Total	0.0269	0.0129	0.2174	5.6000e-004	0.0561	3.1000e-004	0.0564	0.0150	2.9000e-004	0.0153		56.2309	56.2309	1.5600e-003	1.4000e-003	56.6866

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560		1,995.614 7	1,995.614 7	0.6454		2,011.750 3
Total	1.3330	14.4676	8.7038	0.0206	7.0826	0.6044	7.6869	3.4247	0.5560	3.9807		1,995.614 7	1,995.614 7	0.6454		2,011.750 3

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	lb/day										lb/day					
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
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
Worker	0.0337	0.0162	0.2718	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		70.2886	70.2886	1.9500e-003	1.7500e-003	70.8583
Total	0.0337	0.0162	0.2718	7.0000e-004	0.0761	3.9000e-004	0.0765	0.0202	3.6000e-004	0.0205		70.2886	70.2886	1.9500e-003	1.7500e-003	70.8583

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****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	lb/day										lb/day					
Fugitive Dust					3.1872	0.0000	3.1872	1.5411	0.0000	1.5411			0.0000			0.0000
Off-Road	1.3330	14.4676	8.7038	0.0206		0.6044	0.6044		0.5560	0.5560	0.0000	1,995.614 7	1,995.614 7	0.6454		2,011.750 3
Total	1.3330	14.4676	8.7038	0.0206	3.1872	0.6044	3.7915	1.5411	0.5560	2.0971	0.0000	1,995.614 7	1,995.614 7	0.6454		2,011.750 3

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	lb/day										lb/day					
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
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
Worker	0.0337	0.0162	0.2718	7.0000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		70.2886	70.2886	1.9500e-003	1.7500e-003	70.8583
Total	0.0337	0.0162	0.2718	7.0000e-004	0.0701	3.9000e-004	0.0705	0.0187	3.6000e-004	0.0191		70.2886	70.2886	1.9500e-003	1.7500e-003	70.8583

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858

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	lb/day										lb/day					
Hauling	6.0000e-005	3.4000e-003	7.2000e-004	1.0000e-005	3.9000e-004	3.0000e-005	4.2000e-004	1.1000e-004	3.0000e-005	1.3000e-004		1.5503	1.5503	6.0000e-005	2.5000e-004	1.6251
Vendor	8.0300e-003	0.2778	0.0865	1.1400e-003	0.0362	1.5500e-003	0.0377	0.0104	1.4800e-003	0.0119		122.6305	122.6305	3.0300e-003	0.0180	128.0631
Worker	0.0977	0.0469	0.7882	2.0200e-003	0.2206	1.1300e-003	0.2217	0.0585	1.0400e-003	0.0596		203.8369	203.8369	5.6600e-003	5.0700e-003	205.4889
Total	0.1058	0.3281	0.8754	3.1700e-003	0.2571	2.7100e-003	0.2599	0.0690	2.5500e-003	0.0716		328.0177	328.0177	8.7500e-003	0.0233	335.1771

University Avenue Housing Con + Op - Sacramento County, Summer

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

3.4 Building Construction - 2023

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	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858

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	lb/day										lb/day					
Hauling	6.0000e-005	3.4000e-003	7.2000e-004	1.0000e-005	3.7000e-004	3.0000e-005	3.9000e-004	1.0000e-004	3.0000e-005	1.3000e-004		1.5503	1.5503	6.0000e-005	2.5000e-004	1.6251
Vendor	8.0300e-003	0.2778	0.0865	1.1400e-003	0.0338	1.5500e-003	0.0354	9.8300e-003	1.4800e-003	0.0113		122.6305	122.6305	3.0300e-003	0.0180	128.0631
Worker	0.0977	0.0469	0.7882	2.0200e-003	0.2034	1.1300e-003	0.2045	0.0543	1.0400e-003	0.0553		203.8369	203.8369	5.6600e-003	5.0700e-003	205.4889
Total	0.1058	0.3281	0.8754	3.1700e-003	0.2376	2.7100e-003	0.2403	0.0642	2.5500e-003	0.0668		328.0177	328.0177	8.7500e-003	0.0233	335.1771

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****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	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348		2,001.921 4	2,001.921 4	0.3334		2,010.256 3

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	lb/day										lb/day					
Hauling	6.0000e-005	3.3200e-003	7.2000e-004	1.0000e-005	3.9000e-004	3.0000e-005	4.2000e-004	1.1000e-004	2.0000e-005	1.3000e-004		1.5205	1.5205	6.0000e-005	2.4000e-004	1.5938
Vendor	7.6800e-003	0.2723	0.0838	1.1200e-003	0.0361	1.5300e-003	0.0377	0.0104	1.4600e-003	0.0119		120.2950	120.2950	2.9500e-003	0.0177	125.6357
Worker	0.0912	0.0418	0.7305	1.9500e-003	0.2206	1.0800e-003	0.2217	0.0585	9.9000e-004	0.0595		197.1284	197.1284	5.1200e-003	4.7200e-003	198.6614
Total	0.0989	0.3174	0.8149	3.0800e-003	0.2571	2.6400e-003	0.2598	0.0690	2.4700e-003	0.0715		318.9439	318.9439	8.1300e-003	0.0226	325.8909

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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 Building Construction - 2024****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	lb/day										lb/day					
Off-Road	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3
Total	1.4200	11.0639	12.5172	0.0221		0.4506	0.4506		0.4348	0.4348	0.0000	2,001.921 4	2,001.921 4	0.3334		2,010.256 3

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	lb/day										lb/day					
Hauling	6.0000e-005	3.3200e-003	7.2000e-004	1.0000e-005	3.7000e-004	3.0000e-005	3.9000e-004	1.0000e-004	2.0000e-005	1.3000e-004		1.5205	1.5205	6.0000e-005	2.4000e-004	1.5938
Vendor	7.6800e-003	0.2723	0.0838	1.1200e-003	0.0338	1.5300e-003	0.0354	9.8300e-003	1.4600e-003	0.0113		120.2950	120.2950	2.9500e-003	0.0177	125.6357
Worker	0.0912	0.0418	0.7305	1.9500e-003	0.2034	1.0800e-003	0.2044	0.0543	9.9000e-004	0.0553		197.1284	197.1284	5.1200e-003	4.7200e-003	198.6614
Total	0.0989	0.3174	0.8149	3.0800e-003	0.2375	2.6400e-003	0.2402	0.0642	2.4700e-003	0.0667		318.9439	318.9439	8.1300e-003	0.0226	325.8909

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****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	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.868 8	1,297.868 8	0.4114		1,308.154 7
Paving	0.0544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6724	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594		1,297.868 8	1,297.868 8	0.4114		1,308.154 7

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	lb/day										lb/day					
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
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
Worker	0.0409	0.0187	0.3274	8.7000e-004	0.0989	4.8000e-004	0.0994	0.0262	4.4000e-004	0.0267		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551
Total	0.0409	0.0187	0.3274	8.7000e-004	0.0989	4.8000e-004	0.0994	0.0262	4.4000e-004	0.0267		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****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	lb/day										lb/day					
Off-Road	0.6180	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.868 8	1,297.868 8	0.4114		1,308.154 7
Paving	0.0544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.6724	5.8607	8.8253	0.0136		0.2810	0.2810		0.2594	0.2594	0.0000	1,297.868 8	1,297.868 8	0.4114		1,308.154 7

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	lb/day										lb/day					
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
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
Worker	0.0409	0.0187	0.3274	8.7000e-004	0.0912	4.8000e-004	0.0916	0.0243	4.4000e-004	0.0248		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551
Total	0.0409	0.0187	0.3274	8.7000e-004	0.0912	4.8000e-004	0.0916	0.0243	4.4000e-004	0.0248		88.3679	88.3679	2.2900e-003	2.1100e-003	89.0551

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****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	lb/day										lb/day					
Archit. Coating	29.2647					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	29.4454	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	0.0189	8.6400e-003	0.1511	4.0000e-004	0.0456	2.2000e-004	0.0459	0.0121	2.1000e-004	0.0123		40.7852	40.7852	1.0600e-003	9.8000e-004	41.1024
Total	0.0189	8.6400e-003	0.1511	4.0000e-004	0.0456	2.2000e-004	0.0459	0.0121	2.1000e-004	0.0123		40.7852	40.7852	1.0600e-003	9.8000e-004	41.1024

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****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	lb/day										lb/day					
Archit. Coating	29.2647					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	29.4454	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

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	lb/day										lb/day					
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
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
Worker	0.0189	8.6400e-003	0.1511	4.0000e-004	0.0421	2.2000e-004	0.0423	0.0112	2.1000e-004	0.0114		40.7852	40.7852	1.0600e-003	9.8000e-004	41.1024
Total	0.0189	8.6400e-003	0.1511	4.0000e-004	0.0421	2.2000e-004	0.0423	0.0112	2.1000e-004	0.0114		40.7852	40.7852	1.0600e-003	9.8000e-004	41.1024

University Avenue Housing Con + Op - Sacramento County, Summer

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	lb/day										lb/day					
Mitigated	0.5139	0.4905	4.1020	8.6000e-003	0.8829	6.3100e-003	0.8892	0.2354	5.8900e-003	0.2413		876.7065	876.7065	0.0538	0.0392	889.7451
Unmitigated	0.5139	0.4905	4.1020	8.6000e-003	0.8829	6.3100e-003	0.8892	0.2354	5.8900e-003	0.2413		876.7065	876.7065	0.0538	0.0392	889.7451

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	163.20	147.30	122.70	398,113	398,113
Parking Lot	0.00	0.00	0.00		
Total	163.20	147.30	122.70	398,113	398,113

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
Apartments Mid Rise	10.00	5.00	6.50	46.50	12.50	41.00	86	11	3
Parking Lot	10.00	5.00	6.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

University Avenue Housing Con + Op - Sacramento County, Summer

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

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207
Parking Lot	0.546433	0.056674	0.183423	0.128799	0.024661	0.005883	0.013276	0.009437	0.000898	0.000581	0.025768	0.000959	0.003207

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	lb/day										lb/day					
NaturalGas 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
NaturalGas 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

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	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

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	lb/day										lb/day					
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	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

6.0 Area Detail

University Avenue Housing Con + Op - Sacramento County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**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	lb/day										lb/day					
Mitigated	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738
Unmitigated	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738

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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****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	lb/day										lb/day					
Architectural Coating	0.1042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0747	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137		4.4664	4.4664	4.2900e-003		4.5738
Total	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738

University Avenue Housing Con + Op - Sacramento County, Summer

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	lb/day										lb/day					
Architectural Coating	0.1042					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6484					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0747	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137		4.4664	4.4664	4.2900e-003		4.5738
Total	0.8273	0.0285	2.4773	1.3000e-004		0.0137	0.0137		0.0137	0.0137	0.0000	4.4664	4.4664	4.2900e-003	0.0000	4.5738

7.0 Water Detail**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**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

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

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
