

Appendix A: Air Quality, GHG Emissions, and Energy Supporting Information

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Appendix A: Air Quality, Greenhouse Gas Emissions, and Energy Supporting Information

Table of Contents

Project CalEEMod Notes	1
Project Construction Emissions.....	2
Project GHG Emissions Summary.....	3
Project Energy Use Summary and Calculations	4
Project Construction CalEEMod Output File.....	10
Construction Trailer CalEEMod Output File.....	37

Millbrae Electronic Billboards CalEEMod Notes

- Note 1. Land uses and sizes associated with development of the proposed project are drawn from the Submittal Package from the Applicant dated December 3, 2021, the project description dated February 9, 2022, and Applicant-provided information received on February 18, 2022. The project site would displace a 6-foot diameter of asphalt.

Land uses utilized in the model represent the following:

Industrial > User Identified Industrial > 0.1 acres (28 square feet) = Proposed new billboard

- Note 2. According to Applicant-provided information, dated February 16, 2022, project construction is anticipated to occur from September 1, 2022, to September 5, 2022. In addition, the applicant indicated that a 6-foot diameter of asphalt would be displaced. CalEEMod default construction activities and durations were adjusted to reflect this information.
- Note 3. The number of off-site trips assumed to occur during construction of the proposed project is shown in "Construction/Trips and VMT". Additional trips were included to account for the transport of material for the construction of billboards.
- Note 4. BAAQMD *Basic Construction Mitigation Measures Recommended For All Proposed Projects* was applied to this project. This includes watering exposed areas at minimum twice per day and limiting construction vehicle speeds to 15 miles per hour on unpaved roads.

Project Construction Emissions

Model File: Millbrae Billboard Project - Annual - San Mateo County, Annual

Timestamp: Date: 2/28/2022 10:49 AM

Annual Construction Emissions (tons)

Year	Activity	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
	on site	0.00	0.00	0.00	0.00
	off site	0.00	0.00	-	-
2022	Demolition	0.00	0.00	0.00	0.00
	on site	0.00	0.00	0.00	0.00
	off site	-	-	-	-
2022	Trenching	0.00	0.00	0.00	0.00
	on site	0.00	0.01	0.00	0.00
	off site	0.00	0.00	0.00	0.00
2022	Grading	0.00	0.01	0.00	0.00
	on site	0.00	0.00	0.00	0.00
	off site	-	0.00	-	-
2022	Building Construction	0.00	0.00	0.00	0.00
	on site	0.00	0.01	0.00	0.00
	off site	0.00	0.00	-	-
2022	Paving	0.00	0.01	0.00	0.00
Total On Site		0.00	0.02	0.00	0.00
Total Off Site		0.00	0.00	0.00	0.00

*Note: All zeros displayed in the above table represent emission values which are below 0.005 tons per year and have subsequently rounded down. All true zero values are represented with "-".

Average Daily Construction Emissions (lbs/day)

	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
Total Emissions (tons)	0.00	0.02	0.00	0.00
Total Emissions (lbs)	4.10	41.22	1.96	1.82
Average Daily Emissions (lbs/day)¹	0.82	8.24	0.39	0.36
BAAQMD Significance Thresholds	54	54	82	54
Project Exceeds Threshold?	No	No	No	No

Notes: Total emissions (lbs) are divided by the total nonoverlapping construction workdays (5 days).

Project GHG Emissions Summary

Construction - GHG Emissions

Millbrae Billborad - Construction, San Mateo County, Annual

Date: 2/28/2022 10:49 AM

Emissions Source	Construction CO ₂ e
	Metric Tons
Demolition	0.6
Trenching	0.1
Grading	1.0
Building Construction (Installation of Billboard)	0.5
Paving	1.1
Total	3.3
Amortized Over 30 Years	0

400 East Millbrae Billboard Project Energy Use Summary

Summary of Energy Use During Construction

Construction vehicle fuel	46 gallons (gasoline, diesel)
Construction equipment fuel	224 gallons (diesel)
Total construction fuel	271 gallons (gasoline, diesel)
Construction office electricity	119 kilowatt hours

Summary of Energy Use During Operation

Assumed annual electricity consumption	52,400 kilowatt hours
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Construction Vehicle Fuel CalculationsCalifornia Air Resource Board (ARB). EMFAC2017 Web Database. Website: <https://arb.ca.gov/emfac/2017/>. Accessed March 3, 2022.

VMT = Vehicle Miles Traveled

FE = Fuel Economy

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: SAN MATEO

Calendar Year: 2022

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT (mi/day)	Trips	Fuel_Consumption (1000 gallons/day)	Calculations	
										FE (mi/gallon)	VMT*FE
SAN MATEO	2022	HHDT	Aggregated	Aggregated	GAS	2.7778527	472.7149845	55.57928	0.109947	4.299470204	2032.423991
SAN MATEO	2022	HHDT	Aggregated	Aggregated	DSL	1215.4198	107659.4003	10539.66	18.45916	5.832301416	627902.073
SAN MATEO	2022	LDA	Aggregated	Aggregated	GAS	285883.4	8730359.062	1356969	267.3569	32.65432454	285083978.2
SAN MATEO	2022	LDA	Aggregated	Aggregated	DSL	3168.2169	96975.1318	14978.02	1.919874	50.51119309	4898329.607
SAN MATEO	2022	LDT1	Aggregated	Aggregated	GAS	41432.753	1266107.523	196720.5	44.21424	28.63574043	36255926.38
SAN MATEO	2022	LDT1	Aggregated	Aggregated	DSL	16.252476	284.3032588	56.05197	0.011274	25.21697401	7169.267888
SAN MATEO	2022	LDT2	Aggregated	Aggregated	GAS	132267.45	4056131.421	631991.8	151.2281	26.82127757	108790626.7
SAN MATEO	2022	LDT2	Aggregated	Aggregated	DSL	1027.6831	34465.37893	5067.758	0.921702	37.39319408	1288770.603
SAN MATEO	2022	LHDT1	Aggregated	Aggregated	GAS	8860.6807	296397.6133	132010.9	34.64523	8.555222277	2535747.465
SAN MATEO	2022	LHDT1	Aggregated	Aggregated	DSL	5881.241	218648.2671	73978.61	11.4794	19.04700739	4164595.16
SAN MATEO	2022	LHDT2	Aggregated	Aggregated	GAS	1238.5784	40924.28113	18452.97	5.455546	7.501408313	306989.7427
SAN MATEO	2022	LHDT2	Aggregated	Aggregated	DSL	2262.7526	83013.71862	28462.58	4.900854	16.93862166	1406137.972
SAN MATEO	2022	MHDT	Aggregated	Aggregated	GAS	956.09752	56310.1573	19129.6	11.3698	4.952609207	278882.2035
SAN MATEO	2022	MHDT	Aggregated	Aggregated	DSL	5059.2804	329296.5244	52181.07	33.36473	9.869600697	3250025.207

Worker

Sum of VMT*FE (Column BI) 436324800.7

Total VMT 14184322.82

Weighted Average FE 30.76105968

Vendor

Sum of VMT*FE (Column BI) 12572312.25

Total VMT 1132722.677

Weighted Average FE 11.09919709

Haul

Sum of VMT*FE (Column BI) 629934.497

Total VMT 108132.1153

Weighted Average FE 5.825600426

Project Construction Assumptions

Source: AQ/GHG Appendix, CalEEMod Output
 Millbrae Billborad - Construction, San Mateo County, Annual
 Date: 2/28/2022 10:49 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Demolition	Demolition	9/1/2022	9/1/2022	7	1
	Trenching	Trenching	9/2/2022	9/2/2022	7	1
	Grading	Grading	9/3/2022	9/3/2022	7	1
	Building Construction (Installation of	Building Construction	9/4/2022	9/4/2022	7	1
	Paving	Paving	9/4/2022	9/5/2022	7	1
	Total Schedule					5

Trips and VMT	Phase Name	Trips per Day		Total Trips			Trips per Phase			VMT per Phase			Fuel Consumption (gallons)					
			Vendor Trip		Worker Trip	Vendor	Hauling Trip		Worker Trip	Vendor Trip	Hauling Trip	Worker	Vendor	Hauling	Worker	Vendor Trips	Hauling	
		Worker Trip Number	Number	Number	Length	Trip Length	Length	Vendor Vel	Num Days	Number	Number	Number	Trips	Trips	Trips	Trips	Trips	Trips
	Site Preparation	10	2	0	10.8	7.3	20	LD_Mix	1	10	2	0	108	15	0	3.51	1.32	0.00
	Grading	8	2	8	10.8	7.3	20	LD_Mix	1	8	2	8	86	15	160	2.81	1.32	27.46
	Building Construction	0	2	0	10.8	7.3	20	LD_Mix	1	0	2	0	0	15	0	0.00	1.32	0.00
	Paving	18	2	0	10.8	7.3	20	LD_Mix	1	18	2	0	194	15	0	6.32	1.32	0.00
	Architectural Coating	3	0	0	10.8	7.3	20	LD_Mix	1	3	0	0	32	0	0	1.05	0.00	0.00

On-site Total Construction VMT (miles)
640

On-Site Total Fuel Consumption (gallons)
46

Construction Equipment Fuel Calculation

Source: AQ/GHG Appendix, CalEEMod Output
 Millbrae Billborad - Construction, San Mateo County, Annual
 Date: 2/28/2022 10:49 AM

Construction Schedule	Phase Name	Phase Type	Start Date	End Date	Num Days	
					Week	Num Days
	Demolition	Demolition	9/1/2022	9/1/2022	7	1
	Trenching	Trenching	9/2/2022	9/2/2022	7	1
	Grading	Grading	9/3/2022	9/3/2022	7	1
	Building Construction (Installation of Billboard)	Building Construction	9/4/2022	9/4/2022	7	1
	Paving	Paving	9/4/2022	9/5/2022	7	1

Construction Equipment	Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load	Number of	HP Hours	Diesel Fuel Usage
						Factor	Days		
	Paving	Cement and Mortar Mixers	4	6	9	0.56	1	120.96	6.05
	Demolition	Concrete/Industrial Saws	1	8	81	0.73	1	473.04	23.65
	Building Construction	Cranes	1	4	231	0.29	1	267.96	13.40
	Building Construction	Forklifts	2	6	89	0.2	1	213.60	10.68
	Grading	Graders	1	6	187	0.41	1	460.02	23.00
	Paving	Pavers	1	7	130	0.42	1	382.20	19.11
	Paving	Rollers	1	7	80	0.38	1	212.80	10.64
	Demolition	Rubber Tired Dozers	1	1	247	0.4	1	98.80	4.94
	Grading	Rubber Tired Dozers	1	6	247	0.4	1	592.80	29.64
	Building Construction	Tractors/Loaders/Backhoes	2	8	97	0.37	1	574.24	28.71
	Demolition	Tractors/Loaders/Backhoes	2	6	97	0.37	1	430.68	21.53
	Grading	Tractors/Loaders/Backhoes	1	7	97	0.37	1	251.23	12.56
	Paving	Tractors/Loaders/Backhoes	1	7	97	0.37	1	251.23	12.56
	Trench	Trenchers	1	8	63	0.31	1	156.24	7.81
Construction Equipment Fuel Consumption									224.29 gallons

Notes:

Equipment assumptions are provided in the CalEEMod output files.

Fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

South Coast Air Quality Management District. 1993. Air Quality Handbook, Table A9-3E.

Website: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

Construction Office Electricity Calculation

Energy Appendix: CalEEMod Typical Construction Trailer

Millbrae Billborad - Construction Trailer, San Mateo County, Annual

Date: 3/4/2022 7:33 AM

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	8668.8		0.8021	1.3000e- 004	2.0000e- 005	0.8100
Total			0.8021	1.3000e- 004	2.0000e- 005	0.8100

kWh/yr = kilowatt hours per year

Energy by Land Use - Electricity

Annual

8,669 kWh/yr

Total Over Construction

119 kWh

Total Construction Schedule

Start

9/1/2022

End

9/5/2022

Total Working Days

5

Years

0.01

Electricity Consumption Assumptions and Associated GHG Emissions

Assumed annual electricity consumption for the proposed project: 52,400 kWh (or 52.4 MWh).

Emission Intensity Factors: ¹		Annual Emissions at 52.4 MWh:		100-Year Global Warming Potentials: ²	
CO ₂	210 lbs./MWh	CO ₂	11,004.00 lbs.	CO ₂	1
CH ₄	0.029 lbs./MWh	CH ₄	1.52 lbs.	CH ₄	298
N ₂ O	0.00617 lbs./MWh	N ₂ O	0.32 lbs.	N ₂ O	25
Annual Metric Tons of CO ₂ e:					
		CO ₂	4.99 MT CO ₂ e		
		CH ₄	0.21 MT CO ₂ e		
		N ₂ O	0.00 MT CO ₂ e		
		Total:	5.20 MT CO₂e		

Notes:

Pounds to metric ton conversion rate of 2,204.62 lbs/metric ton used.

CO₂ Intensity Factor to match Pacific Gas and Electric's (PG&E) 2019 emissions rates, the latest that are publicly available.¹ The intensity factor utilized in the model is 206 pounds of CO₂ per megawatt-hour delivered. Other intensity factors (CH₄ & N₂O) are drawn from the California Emissions Estimator Model (CalEEMod) given values.

Sources:

1 Pacific Gas & Electric. 2020. Corporate Responsibility and Sustainability Report 2020. Website: https://www.pgecorp.com/corp_responsibility/reports/2020/assets/PGE_CRSR_2020.pdf. Accessed March 4, 2022.

2 Intergovernmental Panel on Climate Change (IPCC). 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp. Website: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed March 4, 2022.

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Outfront Millbrae Billboard Project

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.10	28.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Note 1

Construction Phase - Note 2

Grading - Note

Off-road Equipment - Trenching is needed based on the applicant.

Trips and VMT - Note 3

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	2.00	1.00

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	NumDays	100.00	1.00
tblConstructionPhase	NumDays	5.00	1.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	PhaseEndDate	9/14/2022	9/1/2022
tblConstructionPhase	PhaseEndDate	9/16/2022	9/3/2022
tblConstructionPhase	PhaseEndDate	2/3/2023	9/4/2022
tblConstructionPhase	PhaseEndDate	2/10/2023	9/5/2022
tblConstructionPhase	PhaseStartDate	9/15/2022	9/3/2022
tblConstructionPhase	PhaseStartDate	9/17/2022	9/4/2022
tblConstructionPhase	PhaseStartDate	2/4/2023	9/4/2022
tblGrading	AcresOfGrading	0.75	1.50
tblLandUse	LandUseSquareFeet	0.00	28.00
tblLandUse	LotAcreage	0.00	0.10
tblOffRoadEquipment	HorsePower	78.00	63.00
tblOffRoadEquipment	LoadFactor	0.50	0.31
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblTripsAndVMT	HaulingTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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					
2022	2.0700e-003	0.0206	0.0189	4.0000e-005	3.3800e-003	9.8000e-004	4.3600e-003	1.4100e-003	9.1000e-004	2.3200e-003	0.0000	3.2228	3.2228	7.9000e-004	7.0000e-005	3.2625
Maximum	2.0700e-003	0.0206	0.0189	4.0000e-005	3.3800e-003	9.8000e-004	4.3600e-003	1.4100e-003	9.1000e-004	2.3200e-003	0.0000	3.2228	3.2228	7.9000e-004	7.0000e-005	3.2625

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	2.0700e-003	0.0206	0.0189	4.0000e-005	3.3800e-003	9.8000e-004	4.3600e-003	1.4100e-003	9.1000e-004	2.3200e-003	0.0000	3.2228	3.2228	7.9000e-004	7.0000e-005	3.2625
Maximum	2.0700e-003	0.0206	0.0189	4.0000e-005	3.3800e-003	9.8000e-004	4.3600e-003	1.4100e-003	9.1000e-004	2.3200e-003	0.0000	3.2228	3.2228	7.9000e-004	7.0000e-005	3.2625

	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

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

1	9-1-2022	9-30-2022	0.0226	0.0226
		Highest	0.0226	0.0226

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	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	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	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e-004	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
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	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	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e-004	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

	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	Demolition	Demolition	9/1/2022	9/1/2022	7	1	
2	Trench	Trenching	9/2/2022	9/2/2022	7	1	
3	Grading	Grading	9/3/2022	9/3/2022	7	1	

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	9/4/2022	9/4/2022	7	1
5	Paving	Paving	9/4/2022	9/5/2022	7	1

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 1.5****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
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trench	Trenchers	1	8.00	63	0.31

Trips and VMT

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	2.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Trench	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Demolition - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231
Total	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0304	0.0304	0.0000	0.0000	0.0307
Total	1.0000e-005	7.0000e-005	1.2000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0525	0.0525	0.0000	0.0000	0.0538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231
Total	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	1.0000e-005	1.0000e-005	1.0000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0304	0.0304	0.0000	0.0000	0.0307
Total	1.0000e-005	7.0000e-005	1.2000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0525	0.0525	0.0000	0.0000	0.0538

3.3 Trench - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.0000e-005	8.4000e-004	6.5000e-004	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0738	0.0738	2.0000e-005	0.0000	0.0744
Total	9.0000e-005	8.4000e-004	6.5000e-004	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0738	0.0738	2.0000e-005	0.0000	0.0744

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1200e-003	9.1200e-003	0.0000	0.0000	9.2000e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1200e-003	9.1200e-003	0.0000	0.0000	9.2000e-003

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	9.0000e-005	8.4000e-004	6.5000e-004	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0738	0.0738	2.0000e-005	0.0000	0.0744
Total	9.0000e-005	8.4000e-004	6.5000e-004	0.0000		6.0000e-005	6.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0738	0.0738	2.0000e-005	0.0000	0.0744

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1200e-003	9.1200e-003	0.0000	0.0000	9.2000e-003
Total	0.0000	0.0000	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	9.1200e-003	9.1200e-003	0.0000	0.0000	9.2000e-003

3.4 Grading - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0500e-003	0.0000	3.0500e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	6.0000e-003	2.9700e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.6191	0.6191	2.0000e-004	0.0000	0.6241
Total	5.4000e-004	6.0000e-003	2.9700e-003	1.0000e-005	3.0500e-003	2.6000e-004	3.3100e-003	1.3300e-003	2.4000e-004	1.5700e-003	0.0000	0.6191	0.6191	2.0000e-004	0.0000	0.6241

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.8000e-004	2.2000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2849	0.2849	3.0000e-005	5.0000e-005	0.2993
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0243	0.0243	0.0000	0.0000	0.0245
Total	3.0000e-005	8.5000e-004	3.2000e-004	0.0000	1.1000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3314	0.3314	3.0000e-005	5.0000e-005	0.3469

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0500e-003	0.0000	3.0500e-003	1.3300e-003	0.0000	1.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.4000e-004	6.0000e-003	2.9700e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	0.6191	0.6191	2.0000e-004	0.0000	0.6241
Total	5.4000e-004	6.0000e-003	2.9700e-003	1.0000e-005	3.0500e-003	2.6000e-004	3.3100e-003	1.3300e-003	2.4000e-004	1.5700e-003	0.0000	0.6191	0.6191	2.0000e-004	0.0000	0.6241

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.8000e-004	2.2000e-004	0.0000	7.0000e-005	1.0000e-005	7.0000e-005	2.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.2849	0.2849	3.0000e-005	5.0000e-005	0.2993
Vendor	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	1.0000e-005	1.0000e-005	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0243	0.0243	0.0000	0.0000	0.0245
Total	3.0000e-005	8.5000e-004	3.2000e-004	0.0000	1.1000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.3314	0.3314	3.0000e-005	5.0000e-005	0.3469

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-004	3.5100e-003	3.5800e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.7000e-004	1.7000e-004	0.0000	0.5007	0.5007	1.6000e-004	0.0000	0.5048
Total	3.4000e-004	3.5100e-003	3.5800e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.7000e-004	1.7000e-004	0.0000	0.5007	0.5007	1.6000e-004	0.0000	0.5048

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4000e-004	3.5100e-003	3.5800e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.7000e-004	1.7000e-004	0.0000	0.5007	0.5007	1.6000e-004	0.0000	0.5048
Total	3.4000e-004	3.5100e-003	3.5800e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.7000e-004	1.7000e-004	0.0000	0.5007	0.5007	1.6000e-004	0.0000	0.5048

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0221	0.0221	0.0000	0.0000	0.0231

3.6 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.2000e-004	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0442	0.0442	0.0000	1.0000e-005	0.0462
Worker	4.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1095	0.1095	0.0000	0.0000	0.1104
Total	4.0000e-005	1.5000e-004	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1537	0.1537	0.0000	1.0000e-005	0.1566

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	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.2000e-004	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0442	0.0442	0.0000	1.0000e-005	0.0462
Worker	4.0000e-005	3.0000e-005	3.7000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1095	0.1095	0.0000	0.0000	0.1104
Total	4.0000e-005	1.5000e-004	4.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1537	0.1537	0.0000	1.0000e-005	0.1566

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

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.492711	0.069436	0.224270	0.138474	0.024483	0.005815	0.009990	0.002247	0.001578	0.000636	0.027452	0.000440	0.002469

5.0 Energy Detail

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	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	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	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	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	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Mitigated**

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	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	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Mitigated**

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	1.2000e-004	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Mitigated**

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
User Defined Industrial	0 / 0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

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

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
User Defined Industrial	0		0.0000	0.0000	0.0000	0.0000
Total			0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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 Applied

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Outfront Millbrae Billboard Project
San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	0.72	1000sqft	0.02	720.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2022
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - Note 1
- Construction Phase - Note 2
- Off-road Equipment - Trenching is needed based on the applicant.
- Trips and VMT - Note 3
- Grading - Note
- Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	5.00
tblConstructionPhase	NumDaysWeek	5.00	7.00

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseEndDate	4/11/2022	9/5/2022
tblConstructionPhase	PhaseStartDate	11/23/2021	9/1/2022

2.0 Emissions Summary**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.7200e-003	0.0176	0.0179	3.0000e-005	0.0000	9.3000e-004	9.3000e-004	0.0000	8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239
Maximum	1.7200e-003	0.0176	0.0179	3.0000e-005	0.0000	9.3000e-004	9.3000e-004	0.0000	8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	1.7200e-003	0.0176	0.0179	3.0000e-005	0.0000	9.3000e-004	9.3000e-004	0.0000	8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239
Maximum	1.7200e-003	0.0176	0.0179	3.0000e-005	0.0000	9.3000e-004	9.3000e-004	0.0000	8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
4	8-23-2022	9-30-2022	0.0193	0.0193
		Highest	0.0193	0.0193

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	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.5379	1.5379	1.4000e-004	3.0000e-005	1.5502
Mobile	2.2200e-003	2.3200e-003	0.0214	4.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1154	4.1154	2.8000e-004	1.8000e-004	4.1773
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	5.4800e-003	3.0000e-003	0.0220	4.0000e-005	4.6500e-003	8.0000e-005	4.7300e-003	1.2400e-003	8.0000e-005	1.3200e-003	0.1766	5.7427	5.9193	0.0126	3.1000e-004	6.3289

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Energy	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.5379	1.5379	1.4000e-004	3.0000e-005	1.5502
Mobile	2.2200e-003	2.3200e-003	0.0214	4.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1154	4.1154	2.8000e-004	1.8000e-004	4.1773
Waste						0.0000	0.0000		0.0000	0.0000	0.1360	0.0000	0.1360	8.0400e-003	0.0000	0.3369
Water						0.0000	0.0000		0.0000	0.0000	0.0406	0.0895	0.1301	4.1800e-003	1.0000e-004	0.2645
Total	5.4800e-003	3.0000e-003	0.0220	4.0000e-005	4.6500e-003	8.0000e-005	4.7300e-003	1.2400e-003	8.0000e-005	1.3200e-003	0.1766	5.7427	5.9193	0.0126	3.1000e-004	6.3289

	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	Building Construction	Building Construction	9/1/2022	9/5/2022	7	5	

Acres of Grading (Site Preparation Phase): 0

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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
Building Construction	5	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Building Construction - 2022****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.7200e-003	0.0176	0.0179	3.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239
Total	1.7200e-003	0.0176	0.0179	3.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Unmitigated Construction Off-Site**

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.7200e-003	0.0176	0.0179	3.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239
Total	1.7200e-003	0.0176	0.0179	3.0000e-005		9.3000e-004	9.3000e-004		8.6000e-004	8.6000e-004	0.0000	2.5037	2.5037	8.1000e-004	0.0000	2.5239

Mitigated Construction Off-Site

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

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**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	2.2200e-003	2.3200e-003	0.0214	4.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1154	4.1154	2.8000e-004	1.8000e-004	4.1773
Unmitigated	2.2200e-003	2.3200e-003	0.0214	4.0000e-005	4.6500e-003	3.0000e-005	4.6800e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	4.1154	4.1154	2.8000e-004	1.8000e-004	4.1773

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	7.01	1.59	0.50	12,686	12,686
Total	7.01	1.59	0.50	12,686	12,686

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General 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	0.492711	0.069436	0.224270	0.138474	0.024483	0.005815	0.009990	0.002247	0.001578	0.000636	0.027452	0.000440	0.002469

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	0.0000	0.8021	0.8021	1.3000e-004	2.0000e-005	0.8100
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.8021	0.8021	1.3000e-004	2.0000e-005	0.8100
NaturalGas Mitigated	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402
NaturalGas Unmitigated	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	tons/yr										MT/yr					
General Office Building	13788	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402
Total		7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	13788	7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402
Total		7.0000e-005	6.8000e-004	5.7000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.7358	0.7358	1.0000e-005	1.0000e-005	0.7402

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	8668.8		0.8021	1.3000e-004	2.0000e-005	0.8100
Total			0.8021	1.3000e-004	2.0000e-005	0.8100

Mitigated

	Electricity Use		Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	tons/yr	MT/yr			
General Office Building	8668.8		0.8021	1.3000e-004	2.0000e-005	0.8100
Total			0.8021	1.3000e-004	2.0000e-005	0.8100

6.0 Area Detail**6.1 Mitigation Measures Area**

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule 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	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Unmitigated	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

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	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.8100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005
Total	3.1900e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	0.0000	1.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

		Total CO2	CH4	N2O	CO2e
Category	tons/yr	MT/yr			
Mitigated		0.1301	4.1800e-003	1.0000e-004	0.2645
Unmitigated		0.1301	4.1800e-003	1.0000e-004	0.2645

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	0.127968 / 0.0784322		0.1301	4.1800e-003	1.0000e-004	0.2645
Total			0.1301	4.1800e-003	1.0000e-004	0.2645

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Mitigated**

	Indoor/Outdoor Use		Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr	MT/yr			
General Office Building	0.127968 / 0.0784322		0.1301	4.1800e-003	1.0000e-004	0.2645
Total			0.1301	4.1800e-003	1.0000e-004	0.2645

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

		Total CO2	CH4	N2O	CO2e
	tons/yr	MT/yr			
Mitigated		0.1360	8.0400e-003	0.0000	0.3369
Unmitigated		0.1360	8.0400e-003	0.0000	0.3369

Outfront Millbrae Billboard Project - San Mateo County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
General Office Building	0.67		0.1360	8.0400e- 003	0.0000	0.3369
Total			0.1360	8.0400e- 003	0.0000	0.3369

Mitigated

	Waste Disposed		Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr	MT/yr			
General Office Building	0.67		0.1360	8.0400e- 003	0.0000	0.3369
Total			0.1360	8.0400e- 003	0.0000	0.3369

9.0 Operational Offroad

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 Applied

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
