

Appendix 3.2-1
**Air Quality, Energy, and Greenhouse Gas
Supporting Data**

Phase I Construction Assumptions

Project Phase	Start Date	End Date	Work Days for Calculations	Work Days for Model	Work Days/Week
Demolition	1/1/2020	3/10/2020	50	50	5
Site Preparation	3/11/2020	9/14/2020	190	188	7
Foundations	9/15/2020	3/15/2021	180	182	7
Grading	3/1/2022	6/2/2022	90	94	7
Superstructure	12/6/2020	4/20/2021	137	136	7
Building Construction	4/7/2021	6/2/2022	420	422	7
Bus Stop	2/1/2022	5/10/2022	100	99	7
Exterior Façade	7/1/2021	10/30/2021	123	122	7
Paving - Temp Parking Lot	3/12/2020	3/15/2020	3	4	7
Paving - Grundy Lane	5/2/2022	5/7/2022	5	6	7

Project Phase	Equipment	Fuel Type	Quantity	Horsepower	Hours/Day
Demolition	Bulldozer	Diesel	4	130	8
	Excavator	Diesel	6	325	8
	Loader	Diesel	4	200	8
Site Preparation - Shoring and Excavation	Pile Drill	Diesel	1	250	4
	Excavator	Diesel	4	325	8
	Bulldozers	Diesel	4	130	8
	Loader	Diesel	4	200	8
Foundations and Garage Construction	Crane	Diesel	2	450	8
	Concrete Pump	Diesel	2	400	4
Grading	Dozer	Diesel	1	250	8
	Motor grader	Diesel	1	200	8
	Compactor	Diesel	1	100	8
Superstructure	Crane	Diesel	2	450	6
	Concrete Pump	Diesel	2	400	4
	All Terrain Forklifts	Diesel	2	130	8
Building Construction	All Terrain Forklifts	Diesel	4	130	8
	Generators	Gas	4	10	8
	200 T Cranes	Diesel	2	400	6
Bus Stop	Generators	Gas	2	20	8
	All Terrain Forklifts	Diesel	1	130	8
	100 T Cranes	Diesel	1	400	2
Exterior Façade	Cranes	Diesel	1	400	8
Paving - Grundy Lane and Temp Parking Lot	Paver	Diesel	1	175	8
	Compactor	Diesel	2	100	8
	Motor grader	Diesel	1	200	8

Project Phase	Soil Import (cubic yards)	Export (cubic yards)
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Demolition	0	1,750
Site Preparation - Shoring and Excavation	6,850	173,000
Foundations and Garage Construction	0	N/A
Grading	3,920	0
Superstructure	0	N/A
Building Construction	0	N/A
Bus Stop	0	N/A
Exterior Façade	0	N/A
Paving - Temp Parking Lot	0	N/A
Paving - Grundy Lane	0	N/A

Project Phase	Total Acres Paved
Demolition	N/A
Site Preparation - Shoring and Excavation	N/A
Foundations and Garage Construction	N/A
Grading	N/A
Superstructure	N/A
Building Construction	N/A
Bus Stop	N/A
Exterior Façade	N/A
Paving - Temp Parking Lot	2
Paving - Grundy Lane	1

Project Phase	Demolition (tons)
Demolition	10,200
Site Preparation - Shoring and Excavation	0
Foundations and Garage Construction	0
Grading	0
Superstructure	0
Building Construction	0
Bus Stop	0
Exterior Façade	0
Paving - Temp Parking Lot	0
Paving - Grundy Lane	2,240

Project Phase	Total Acres Graded	Maxium Per Day
Demolition	0	N/A
Site Preparation - Shoring and Excavation	9	2
Foundations and Garage Construction	0	N/A
Grading	9	2
Superstructure	0	N/A
Building Construction	0	N/A
Bus Stop	0	N/A
Exterior Façade	0	N/A

Paving - Temp Parking Lot	0	N/A
Paving - Grundy Lane	0	N/A

Project Phase	Number of Worker Trips (round trips) per day	Total Miles	Daily Miles	Miles/Trip
Demolition	85	340,000	6,800	80
Site Preparation - Shoring and Excavation	75	1,140,000	6,000	80
Foundations and Garage Construction	250	3,600,000	20,000	80
Grading	30	216,000	2,400	80
Superstructure	260	2,849,600	20,800	80
Building Construction	575	19,320,000	46,000	80
Bus Stop	5	40,000	400	80
Exterior Façade	45	360,000	2,927	65
Paving - Temp Parking Lot	30	7,200	2,400	80
Paving - Grundy Lane	30	12,000	2,400	80

Project Phase	Number of Vendor/Delivery Truck Trips per day	Total Miles	Daily Miles	Miles/Trip	Total Trips/Day (including water trucks)
Demolition	0	0	0	7.3	2
Site Preparation - Shoring and Excavation	6	22,800	120	20	8
Foundations and Garage Construction	21	75,600	420	20	21
Grading	5	4,500	50	10	7
Superstructure	10	123,300	900	90	10
Building Construction	25	157,500	375	15	26
Bus Stop	5	10,000	100	20	6
Exterior Façade	2	504,792	4,104	2,052	2
Paving - Temp Parking Lot	40	2,400	800	20	41
Paving - Grundy Lane	34	3,400	680	20	34

Project Phase	Number of Haul Truck Trips per day	Total Miles	Daily Miles	Miles/Trip	Total Haul Trips
Demolition	4	4,000	80	20	200
Site Preparation - Shoring and Excavation	216	259,200	1,364	6	41,040
Foundations and Garage Construction	0	0	0	N/A	0
Grading	100	25	0	1	9,000
Superstructure	0	0	0	N/A	0
Building Construction	20	150	0	1	8,400
Bus Stop	0	0	0	N/A	0
Exterior Façade	0	0	0	N/A	0
Paving - Temp Parking Lot	0	0	0	N/A	0

Paving - Grundy Lane	0	0	0	N/A	0
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Project Phase	Number of Water Trucks per day	Hours of Operation/Day
Demolition	2	8
Site Preparation - Shoring and Excavation	2	8
Foundations and Garage Construction	0	N/A
Grading	2	8
Superstructure	0	N/A
Building Construction	1	8
Bus Stop	1	N/A
Exterior Façade	0	N/A
Paving - Temp Parking Lot	1	N/A
Paving - Grundy Lane	0	N/A

Source: Weber (2019)

	Annual kWh	Annual MWh	CO2 (metric tons)	CH4 (metric tons)	N2O (metric tons)	CO2e (metric tons)
2020	78,000	78	10.3	0.00107	0.00013	10.32450
2021	78,000	78	9.5	0.00100	0.00012	9.52898
2022	78,000	78	8.7	0.00094	0.00011	8.73346

eGrid2016 Emission Factors

527.862 lb CO2/MWh
0.033 lb CH4/MWh
0.004 lb N2O/MWh

2016 CA	%	EF (lb/MWh)		
		CO2	CH4	N2O
Hydro	14.72%	0	0	0
Nuclear	9.08%	0	0	0
Renewable	29.00%	0	0	0
Non-renewable	47.20%	1118	0.070	0.008
Total	100.00%	528	0.033	0.004

2020 (RPS = 33%)	%	EF (lb/MWh)		
		CO2	CH4	N2O
Hydro	14.72%	0	0	0
Nuclear	9.08%	0	0	0
Renewable	33.00%	0	0	0
Non-renewable	43.20%	1118	0.070	0.008
Total	100.00%	483	0.030	0.004

2030 (RPS = 60%)	%	EF (lb/MWh)		
		CO2	CH4	N2O
Hydro	14.72%	0	0	0
Nuclear	9.08%	0	0	0
Renewable	60.00%	0	0	0
Non-renewable	16.20%	1118	0.070	0.008
Total	100.00%	181	0.011	0.001

2045 (RPS = 100%)	%	EF (lb/MWh)		
		CO2	CH4	N2O
Hydro	0.00%	0	0	0
Nuclear	0.00%	0	0	0
Renewable	100.00%	0	0	0
Non-renewable	0.00%	1118	0.070	0.008
Total	100.00%	0	0.000	0.000

Year	EF (lb/MWh)		
	CO2	CH4	N2O
2016	528	0.033	0.004
2017	528	0.033	0.004
2018	517	0.033	0.004
2019	505	0.032	0.004
2020	483	0.030	0.004
2021	453	0.028	0.003
2022	423	0.026	0.003
2023	393	0.025	0.003
2024	362	0.023	0.003
2025	332	0.021	0.003
2026	302	0.019	0.002
2027	272	0.017	0.002
2028	242	0.015	0.002
2029	211	0.013	0.002
2030	181	0.011	0.001
2031	169	0.011	0.001
2032	157	0.010	0.001
2033	145	0.009	0.001
2034	133	0.008	0.001
2035	121	0.008	0.001
2036	109	0.007	0.001
2037	97	0.006	0.001
2038	85	0.005	0.001
2039	72	0.005	0.001
2040	60	0.004	0.0005
2041	48	0.003	0.000
2042	36	0.002	0.000
2043	24	0.002	0.000
2044	12	0.001	0.000
2045	0	0.000	0.000

PG&E

427.000 lb CO2/MWh https://www.pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor

2013 PG&E	%	EF (lb/MWh)		Year	EF (lb/MWh)		kWh-MWh lb-ton	0.001 0.0004536
		CO2	CH4		CO2	CH4		
Hydro	10.00%	0	0	2013	427	0	24	298
Nuclear	22.00%	0	0	2014	407	0		
Renewable	22.00%	0	0	2015	388	0		
Non-renewable	46.00%	928	0	2016	368	0		
Total	100.00%	427	0	2017	349	0		
				2018	329	0		
				2019	310	0		
				2020	290	0		
				2021	268	0		
				2022	245	0		
				2023	223	0		
				2024	201	0		
				2025	178	0		
				2026	156	0		
				2027	133	0		
				2028	111	0		
				2029	89	0		
				2030	66	0		
				2031	62	0		
				2032	57	0		
				2033	53	0		
				2034	49	0		
				2035	44	0		
				2036	40	0		
				2037	35	0		
				2038	31	0		
				2039	27	0		
				2040	22	0		
				2041	18	0		
				2042	13	0		
				2043	9	0		
				2044	4	0		
				2045	0	0		

Bayhill Specific Plan - Phase I Construction Analysis - San Mateo County, Annual

Bayhill Specific Plan - Phase I Construction Analysis

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	440.00	1000sqft	5.15	440,000.00	0
Enclosed Parking with Elevator	773.80	1000sqft	0.00	773,800.00	0
Parking Lot	3.00	Acre	3.00	130,680.00	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 & Electric Company				
CO2 Intensity	290	CH4 Intensity	0.03	N2O Intensity	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted electricity EF for 2020 per SB 100

Land Use - total site acreage, office, temp parking lot and Grundy lane acreage provided by project description and project sponsor; assumed remaining acreage from temporary parking and Grundy to be building acreage

Construction Phase - Start/end dates provided by the project sponsor; adjusted days/week to be consistent with total days or end dates provided by project sponsor (whichever is larger)

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - No additional equipment for this phase

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

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Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - No additional equipment for this phase

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Trips and VMT - trips and trip lengths provided by project sponsor; vendor trips assumed to also include water trucks; total hauling trucks assumed to be

Demolition - Demoliton tonnage provided by project sponsor

Grading - Grading acreage provided by project sponsor

Vehicle Trips - Operation emissions to be modeled seperately

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 final assumed for all pieces of equipment

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDaysWeek	5.00	7.00
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tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripLength	10.80	65.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripNumber	35.00	85.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00
tblTripsAndVMT	WorkerTripNumber	10.00	30.00
tblTripsAndVMT	WorkerTripNumber	33.00	75.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00
tblTripsAndVMT	WorkerTripNumber	521.00	250.00
tblTripsAndVMT	WorkerTripNumber	521.00	260.00
tblTripsAndVMT	WorkerTripNumber	521.00	575.00
tblTripsAndVMT	WorkerTripNumber	104.00	45.00
tblTripsAndVMT	WorkerTripNumber	521.00	5.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00

tblVehicleTrips	WD_TR	11.42	0.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.3482	12.9424	9.6437	0.0363	4.0701	0.3923	4.4624	1.7125	0.3629	2.0754	0	3,363.7875	3,363.79	0.4872	0	3,375.97
2021	4.6852	9.6563	17.6258	0.0740	6.3481	0.2705	6.6187	1.6959	0.2524	1.9483	0.0000	6,811.6126	6,811.61	0.3896	0	6,821.35
2022	0.9264	3.6990	7.1837	0.0282	3.0198	0.1155	3.1353	0.8808	0.1073	0.9881	0.0000	2,553.1967	2,553.20	0.1541	0	2,557.05
Maximum	4.6852	12.9424	17.6258	0.0740	6.3481	0.3923	6.6187	1.7125	0.3629	2.0754	0.0000	6,811.6126	6,811.6126	0.4872	0.0000	6,821.353

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.7003	4.9680	11.8666	0.0363	4.0701	0.0441	4.1142	1.7125	0.0429	1.7555	0.0000	3,363.7859	3,363.79	0.4872	0	3,375.97
2021	4.2429	4.7161	17.9430	0.0740	6.3481	0.0592	6.4073	1.6959	0.0561	1.7521	0.0000	6,811.6115	6,811.61	0.3896	0	6,821.35
2022	0.7213	1.5737	7.1817	0.0282	3.0198	0.0218	3.0416	0.8808	0.0206	0.9014	0.0000	2,553.1963	2,553.20	0.1541	0	2,557.05
Maximum	4.2429	4.9680	17.9430	0.0740	6.3481	0.0592	6.4073	1.7125	0.0561	1.7555	0.0000	6,811.6115	6,811.6115	0.4872	0.0000	6,821.3522

	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	18.61	57.19	-7.37	0.00	0.00	83.93	4.59	0.00	83.45	12.03	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	2.9086	0.7881
2	4-1-2020	6-30-2020	4.5759	2.0420
3	7-1-2020	9-30-2020	4.2501	1.8639
4	10-1-2020	12-31-2020	2.5702	0.9885
5	1-1-2021	3-31-2021	3.2621	1.3541
6	4-1-2021	6-30-2021	2.2229	1.0941
7	7-1-2021	9-30-2021	5.5207	4.2413
8	10-1-2021	12-31-2021	3.3362	2.2700
9	1-1-2022	3-31-2022	2.4589	1.2819
10	4-1-2022	6-30-2022	2.2111	1.0578
		Highest	5.5207	4.2413

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	3/10/2020	5	50	
2	Demolition (Site Preparation	Site Preparation	1/1/2020	3/10/2020	5	50	
3	Site Preparation	Site Preparation	3/11/2020	9/16/2020	7	190	
4	Paving - Temp Parking Lot	Paving	3/12/2020	3/15/2020	7	4	
5	Foundations and Garage	Building Construction	9/15/2020	3/15/2021	7	182	
6	Superstructure	Building Construction	12/6/2020	4/21/2021	7	137	
7	Building Construction	Building Construction	4/7/2021	6/2/2022	7	422	
8	Exterior Facade	Architectural Coating	7/1/2021	10/31/2021	7	123	
9	Bus Stop	Building Construction	2/1/2022	5/11/2022	7	100	
10	Grading	Grading	3/1/2022	6/2/2022	7	94	
11	Paving - Grundy Lane	Demolition	5/2/2022	5/7/2022	7	6	
12	Paving - Grundy Lane	Paving	5/2/2022	5/7/2022	7	6	

Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 9

Acres of Paving: 3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 660,000; Non-Residential Outdoor: 220,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Excavators	6	8.00	325	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Dozers	4	8.00	130	0.40
Demolition	Tractors/Loaders/Backhoes	4	8.00	200	0.37
Demolition (Site Preparation Only)	Rubber Tired Dozers	0	8.00	247	0.40
Demolition (Site Preparation Only)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Superstructure	Air Compressors	0	6.00	78	0.48
Superstructure	Cranes	0	7.00	231	0.29
Superstructure	Cranes	2	6.00	450	0.29
Superstructure	Forklifts	0	8.00	89	0.20
Superstructure	Generator Sets	0	8.00	84	0.74
Superstructure	Off-Highway Trucks	2	8.00	130	0.38
Superstructure	Pumps	2	4.00	400	0.74
Superstructure	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Superstructure	Welders	0	8.00	46	0.45
Bus Stop	Cranes	0	7.00	231	0.29
Bus Stop	Cranes	1	2.00	400	0.29
Bus Stop	Forklifts	0	8.00	89	0.20
Bus Stop	Generator Sets	0	8.00	84	0.74
Bus Stop	Generator Sets	2	8.00	20	0.74
Bus Stop	Off-Highway Trucks	1	8.00	130	0.38
Bus Stop	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Bus Stop	Welders	0	8.00	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Graders	1	8.00	200	0.41
Grading	Pavers	0	8.00	130	0.42
Grading	Paving Equipment	0	8.00	132	0.36
Grading	Plate Compactors	1	8.00	100	0.43
Grading	Rollers	0	8.00	80	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	250	0.40

Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	4.00	250	0.50
Site Preparation	Excavators	0	8.00	158	0.38
Site Preparation	Excavators	4	8.00	325	0.38
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	4	8.00	130	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	200	0.37
Paving - Temp Parking Lot		1	8.00		
Paving - Temp Parking Lot	Graders	2	8.00	200	0.43
Paving - Temp Parking Lot	Pavers	0	8.00	130	0.42
Paving - Temp Parking Lot	Pavers	1	8.00	100	0.42
Paving - Temp Parking Lot	Paving Equipment	0	8.00	132	0.36
Paving - Temp Parking Lot	Rollers	0	8.00	175	0.38
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Cranes	2	6.00	400	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Generator Sets	4	8.00	10	0.74
Building Construction	Off-Highway Trucks	4	8.00	130	0.38
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving - Grundy Lane (Demolition)	Concrete/Industrial Saws	0	8.00	81	0.73
Paving - Grundy Lane (Demolition)	Excavators	0	8.00	158	0.38
Paving - Grundy Lane (Demolition)	Rubber Tired Dozers	0	8.00	247	0.40
Paving - Grundy Lane	Graders	1	8.00	200	0.41
Paving - Grundy Lane	Pavers	0	8.00	130	0.42
Paving - Grundy Lane	Pavers	1	8.00	175	0.42
Paving - Grundy Lane	Paving Equipment	0	8.00	132	0.36
Paving - Grundy Lane	Plate Compactors	2	8.00	100	0.43
Paving - Grundy Lane	Rollers	0	8.00	80	0.38
Exterior Facade	Air Compressors	0	6.00	78	0.48
Exterior Facade	Cranes	1	8.00	400	0.29
Foundations and Garage Construction	Cranes	0	7.00	231	0.29
Foundations and Garage Construction	Cranes	2	8.00	450	0.29
Foundations and Garage Construction	Forklifts	0	8.00	89	0.20
Foundations and Garage Construction	Generator Sets	0	8.00	84	0.74
Foundations and Garage Construction	Pumps	2	4.00	400	0.74
Foundations and Garage Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Foundations and Garage Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Demolition	14	85.00	2.00	200.00	80.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition (Site Preparation Only)	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Superstructure	6	260.00	10.00	0.00	80.00	90.00	0.00	LD_Mix	HDT_Mix	HHDT
Bus Stop	4	5.00	6.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	3	30.00	7.00	9,000.00	80.00	10.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	13	75.00	8.00	41,040.00	80.00	20.00	6.30	LD_Mix	HDT_Mix	HHDT
Paving - Temp	3	30.00	41.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	575.00	26.00	8,400.00	80.00	15.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving - Grundy Lane	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving - Grundy Lane	4	30.00	34.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Exterior Facade	1	45.00	2.00	0.00	65.00	2,052.00	0.00	LD_Mix	HDT_Mix	HHDT
Foundations and Garage Construction	4	250.00	21.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1091	0.0000	0.1091	0.0165	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1461	1.5299	0.8730	2.6700e-003		0.0663	0.0663		0.0610	0.0610	0.0000	234.4573	234.4573	0.0758	0.0000	236.3531
Total	0.1461	1.5299	0.8730	2.6700e-003	0.1091	0.0663	0.1754	0.0165	0.0610	0.0775	0.0000	234.4573	234.4573	0.0758	0.0000	236.3531

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	8.9000e-004	0.0323	0.0135	8.0000e-005	1.6700e-003	1.0000e-004	1.7700e-003	4.60E-04	1.00E-04	5.60E-04	0.0000	8.3531	8.3531	1.0400e-003	0.0000	8.3792
Vendor	1.9000e-004	5.8000e-003	2.3100e-003	1.0000e-005	3.3000e-004	3.0000e-005	3.5000e-004	9.00E-05	3.00E-05	1.20E-04	0.0000	1.3250	1.3250	1.2000e-004	0.0000	1.3279
Worker	0.0335	0.0256	0.2525	1.1100e-003	0.1238	7.0000e-004	0.1245	0.0329	6.40E-04	0.0336	0.0000	100.5210	100.5210	1.7700e-003	0.0000	100.5652
Total	0.0346	0.0637	0.2683	1.2000e-003	0.1258	8.3000e-004	0.1266	0.0335	7.7000e-004	0.0343	0.0000	110.1991	110.1991	2.9300e-003	0.0000	110.2723

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1091	0.0000	0.1091	0.0165	0.0000	0.0165	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0329	0.1427	1.3453	2.6700e-003		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	234.4571	234.4571	0.0758	0.0000	236.3528
Total	0.0329	0.1427	1.3453	2.6700e-003	0.1091	4.3900e-003	0.1135	0.0165	4.3900e-003	0.0209	0.0000	234.4571	234.4571	0.0758	0.0000	236.3528

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	8.9000e-004	0.0323	0.0135	8.0000e-005	1.6700e-003	1.0000e-004	1.7700e-003	4.60E-04	1.00E-04	5.60E-04	0.0000	8.3531	8.3531	1.0400e-003	0.0000	8.3792
Vendor	1.9000e-004	5.8000e-003	2.3100e-003	1.0000e-005	3.3000e-004	3.0000e-005	3.5000e-004	9.00E-05	3.00E-05	1.20E-04	0.0000	1.3250	1.3250	1.2000e-004	0.0000	1.3279
Worker	0.0335	0.0256	0.2525	1.1100e-003	0.1238	7.0000e-004	0.1245	0.0329	6.40E-04	0.0336	0.0000	100.5210	100.5210	1.7700e-003	0.0000	100.5652
Total	0.0346	0.0637	0.2683	1.2000e-003	0.1258	8.3000e-004	0.1266	0.0335	7.7000e-004	0.0343	0.0000	110.1991	110.1991	2.9300e-003	0.0000	110.2723

3.3 Demolition (Site Preparation Only) - 2020

Unmitigated Construction On-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.4 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2793	0.0000	2.2793	1.2467	0.0000	1.2467	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5067	5.3524	2.9734	8.6400e-003		0.2360	0.2360		0.2171	0.2171	0.0000	758.7194	758.7194	0.2454	0.0000	764.8540
Total	0.5067	5.3524	2.9734	8.6400e-003	2.2793	0.2360	2.5152	1.2467	0.2171	1.4638	0.0000	758.7194	758.7194	0.2454	0.0000	764.8540

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	0.0820	3.2954	1.2240	6.1900e-003	0.1084	7.5400e-003	0.1160	0.0298	7.22E-03	0.037	0.0000	635.3119	635.3119	0.0786	0.0000	637.2769
Vendor	6.1400e-003	0.1677	0.0680	5.1000e-004	0.0135	1.1400e-003	0.0147	3.9100e-003	1.09E-03	5.00E-03	0.0000	50.2646	50.2646	4.1600e-003	0.0000	50.3688
Worker	0.1125	0.0858	0.8468	3.7200e-003	0.4150	2.3400e-003	0.4174	0.1104	2.16E-03	0.1125	0.0000	337.0409	337.0409	5.9300e-003	0.0000	337.1893
Total	0.2006	3.5488	2.1387	0.0104	0.5370	0.0110	0.5480	0.1441	0.0105	0.1546	0.0000	1,022.6175	1,022.6175	0.0887	0.0000	1,024.8349

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					2.2793	0.0000	2.2793	1.2467	0.0000	1.2467	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1066	0.4620	4.4319	8.6400e-003		0.0142	0.0142		0.0142	0.0142	0.0000	758.7185	758.7185	0.2454	0.0000	764.8531
Total	0.1066	0.4620	4.4319	8.6400e-003	2.2793	0.0142	2.2935	1.2467	0.0142	1.2609	0.0000	758.7185	758.7185	0.2454	0.0000	764.8531

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	0.0820	3.2954	1.2240	6.1900e-003	0.1084	7.5400e-003	0.1160	0.0298	7.22E-03	0.037	0.0000	635.3119	635.3119	0.0786	0.0000	637.2769
Vendor	6.1400e-003	0.1677	0.0680	5.1000e-004	0.0135	1.1400e-003	0.0147	3.9100e-003	1.09E-03	5.00E-03	0.0000	50.2646	50.2646	4.1600e-003	0.0000	50.3688
Worker	0.1125	0.0858	0.8468	3.7200e-003	0.4150	2.3400e-003	0.4174	0.1104	2.16E-03	0.1125	0.0000	337.0409	337.0409	5.9300e-003	0.0000	337.1893
Total	0.2006	3.5488	2.1387	0.0104	0.5370	0.0110	0.5480	0.1441	0.0105	0.1546	0.0000	1,022.6175	1,022.6175	0.0887	0.0000	1,024.8349

3.5 Paving - Temp Parking Lot - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8300e-003	0.0349	0.0135	4.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	3.2476	3.2476	1.0500e-003	0.0000	3.2739
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7600e-003	0.0349	0.0135	4.0000e-005		1.3900e-003	1.3900e-003		1.2800e-003	1.2800e-003	0.0000	3.2476	3.2476	1.0500e-003	0.0000	3.2739

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	6.6000e-004	0.0181	7.3400e-003	5.0000e-005	1.4600e-003	1.2000e-004	1.5800e-003	4.2000e-004	1.20E-04	5.40E-04	0.0000	5.4233	5.4233	4.5000e-004	0.0000	5.4345
Worker	9.5000e-004	7.2000e-004	7.1300e-003	3.0000e-005	3.5000e-003	2.0000e-005	3.5100e-003	9.3000e-004	2.00E-05	9.50E-04	0.0000	2.8382	2.8382	5.0000e-005	0.0000	2.8395
Total	1.6100e-003	0.0188	0.0145	8.0000e-005	4.9600e-003	1.4000e-004	5.0900e-003	1.3500e-003	1.4000e-004	1.4900e-003	0.0000	8.2615	8.2615	5.0000e-004	0.0000	8.2740

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	4.5000e-004	1.9600e-003	0.0188	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2476	3.2476	1.0500e-003	0.0000	3.2739
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3800e-003	1.9600e-003	0.0188	4.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	3.2476	3.2476	1.0500e-003	0.0000	3.2739

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.6000e-004	0.0181	7.3400e-003	5.0000e-005	1.4600e-003	1.2000e-004	1.5800e-003	4.2000e-004	1.20E-04	5.40E-04	0.0000	5.4233	5.4233	4.5000e-004	0.0000	5.4345
Worker	9.5000e-004	7.2000e-004	7.1300e-003	3.0000e-005	3.5000e-003	2.0000e-005	3.5100e-003	9.3000e-004	2.00E-05	9.50E-04	0.0000	2.8382	2.8382	5.0000e-005	0.0000	2.8395
Total	1.6100e-003	0.0188	0.0145	8.0000e-005	4.9600e-003	1.4000e-004	5.0900e-003	1.3500e-003	1.4000e-004	1.4900e-003	0.0000	8.2615	8.2615	5.0000e-004	0.0000	8.2740

3.6 Foundations and Garage Construction - 2020

Unmitigated Construction On-Site

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

Off-Road	0.1369	1.4791	0.9480	2.6200e-003		0.0546	0.0546		0.0515	0.0515	0.0000	251.9030	251.9030	0.0391	0.0000	252.8797
Total	0.1369	1.4791	0.9480	2.6200e-003		0.0546	0.0546		0.0515	0.0515	0.0000	251.9030	251.9030	0.0391	0.0000	252.8797

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1600e-003	0.2502	0.1015	7.5000e-004	0.0202	1.7000e-003	0.0219	5.8400e-003	1.63E-03	7.47E-03	0.0000	75.0001	75.0001	6.2100e-003	0.0000	75.1555
Worker	0.2131	0.1625	1.6044	7.0500e-003	0.7864	4.4400e-003	0.7908	0.2092	4.09E-03	0.2132	0.0000	638.6039	638.6039	0.0112	0.0000	638.8849
Total	0.2222	0.4126	1.7058	7.8000e-003	0.8066	6.1400e-003	0.8127	0.2150	5.7200e-003	0.2207	0.0000	713.6040	713.6040	0.0175	0.0000	714.0404

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	0.0318	0.1379	1.1671	2.6200e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	251.9027	251.9027	0.0391	0.0000	252.8794
Total	0.0318	0.1379	1.1671	2.6200e-003		4.2400e-003	4.2400e-003		4.2400e-003	4.2400e-003	0.0000	251.9027	251.9027	0.0391	0.0000	252.8794

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.1600e-003	0.2502	0.1015	7.5000e-004	0.0202	1.7000e-003	0.0219	5.8400e-003	1.63E-03	7.47E-03	0.0000	75.0001	75.0001	6.2100e-003	0.0000	75.1555
Worker	0.2131	0.1625	1.6044	7.0500e-003	0.7864	4.4400e-003	0.7908	0.2092	4.09E-03	0.2132	0.0000	638.6039	638.6039	0.0112	0.0000	638.8849

Total	0.2222	0.4126	1.7058	7.8000e-003	0.8066	6.1400e-003	0.8127	0.2150	5.7200e-003	0.2207	0.0000	713.6040	713.6040	0.0175	0.0000	714.0404
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3.6 Foundations and Garage Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0868	0.8923	0.6115	1.8000e-003		0.0333	0.0333		0.0314	0.0314	0.0000	172.5842	172.5842	0.0266	0.0000	173.2489
Total	0.0868	0.8923	0.6115	1.8000e-003		0.0333	0.0333		0.0314	0.0314	0.0000	172.5842	172.5842	0.0266	0.0000	173.2489

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9800e-003	0.1496	0.0672	5.1000e-004	0.0138	4.6000e-004	0.0143	4.0000e-003	4.40E-04	4.44E-03	0.0000	50.7747	50.7747	4.2300e-003	0.0000	50.8805
Worker	0.1377	0.1003	1.0211	4.6600e-003	0.5388	2.9400e-003	0.5418	0.1433	2.71E-03	0.146	0.0000	421.9574	421.9574	6.9400e-003	0.0000	422.1310
Total	0.1427	0.2498	1.0884	5.1700e-003	0.5527	3.4000e-003	0.5561	0.1473	3.1500e-003	0.1505	0.0000	472.7321	472.7321	0.0112	0.0000	473.0114

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	0.0218	0.0945	0.7997	1.8000e-003		2.9100e-003	2.9100e-003		2.9100e-003	2.9100e-003	0.0000	172.5840	172.5840	0.0266	0.0000	173.2487
Total	0.0218	0.0945	0.7997	1.8000e-003		2.9100e-003	2.9100e-003		2.9100e-003	2.9100e-003	0.0000	172.5840	172.5840	0.0266	0.0000	173.2487

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9800e-003	0.1496	0.0672	5.1000e-004	0.0138	4.6000e-004	0.0143	4.0000e-003	4.40E-04	4.44E-03	0.0000	50.7747	50.7747	4.2300e-003	0.0000	50.8805
Worker	0.1377	0.1003	1.0211	4.6600e-003	0.5388	2.9400e-003	0.5418	0.1433	2.71E-03	0.146	0.0000	421.9574	421.9574	6.9400e-003	0.0000	422.1310
Total	0.1427	0.2498	1.0884	5.1700e-003	0.5527	3.4000e-003	0.5561	0.1473	3.1500e-003	0.1505	0.0000	472.7321	472.7321	0.0112	0.0000	473.0114

3.7 Superstructure - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0352	0.3578	0.2641	6.7000e-004		0.0139	0.0139		0.0131	0.0131	0.0000	63.8904	63.8904	0.0105	0.0000	64.1518
Total	0.0352	0.3578	0.2641	6.7000e-004		0.0139	0.0139		0.0131	0.0131	0.0000	63.8904	63.8904	0.0105	0.0000	64.1518

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0600e-003	0.1037	0.0427	3.7000e-004	0.0104	8.6000e-004	0.0113	3.0100e-003	8.20E-04	3.83E-03	0.0000	37.0002	37.0002	2.9900e-003	0.0000	37.0749
Worker	0.0534	0.0407	0.4017	1.7700e-003	0.1969	1.1100e-003	0.1980	0.0524	1.02E-03	0.0534	0.0000	159.8875	159.8875	2.8100e-003	0.0000	159.9579
Total	0.0574	0.1443	0.4444	2.1400e-003	0.2073	1.9700e-003	0.2093	0.0554	1.8400e-003	0.0572	0.0000	196.8876	196.8876	5.8000e-003	0.0000	197.0327

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
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Category	tons/yr										MT/yr					
Off-Road	8.1200e-003	0.0352	0.3319	6.7000e-004		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	63.8904	63.8904	0.0105	0.0000	64.1518
Total	8.1200e-003	0.0352	0.3319	6.7000e-004		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	63.8904	63.8904	0.0105	0.0000	64.1518

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0600e-003	0.1037	0.0427	3.7000e-004	0.0104	8.6000e-004	0.0113	3.0100e-003	8.20E-04	3.83E-03	0.0000	37.0002	37.0002	2.9900e-003	0.0000	37.0749
Worker	0.0534	0.0407	0.4017	1.7700e-003	0.1969	1.1100e-003	0.1980	0.0524	1.02E-03	0.0534	0.0000	159.8875	159.8875	2.8100e-003	0.0000	159.9579
Total	0.0574	0.1443	0.4444	2.1400e-003	0.2073	1.9700e-003	0.2093	0.0554	1.8400e-003	0.0572	0.0000	196.8876	196.8876	5.8000e-003	0.0000	197.0327

3.7 Superstructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1383	1.3358	1.0824	2.8500e-003		0.0520	0.0520		0.0490	0.0490	0.0000	272.7619	272.7619	0.0444	0.0000	273.8712
Total	0.1383	1.3358	1.0824	2.8500e-003		0.0520	0.0520		0.0490	0.0490	0.0000	272.7619	272.7619	0.0444	0.0000	273.8712

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0134	0.3771	0.1759	1.5700e-003	0.0444	1.4100e-003	0.0458	0.0128	1.34E-03	0.0142	0.0000	156.1116	156.1116	0.0128	0.0000	156.4305
Worker	0.2148	0.1564	1.5930	7.2700e-003	0.8406	4.5900e-003	0.8452	0.2236	4.23E-03	0.2278	0.0000	658.2535	658.2535	0.0108	0.0000	658.5243
Total	0.2282	0.5335	1.7689	8.8400e-003	0.8850	6.0000e-003	0.8910	0.2364	5.5700e-003	0.2420	0.0000	814.3651	814.3651	0.0236	0.0000	814.9548

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	0.0347	0.1503	1.4168	2.8500e-003		4.6200e-003	4.6200e-003		4.6200e-003	4.6200e-003	0.0000	272.7615	272.7615	0.0444	0.0000	273.8709
Total	0.0347	0.1503	1.4168	2.8500e-003		4.6200e-003	4.6200e-003		4.6200e-003	4.6200e-003	0.0000	272.7615	272.7615	0.0444	0.0000	273.8709

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0134	0.3771	0.1759	1.5700e-003	0.0444	1.4100e-003	0.0458	0.0128	1.34E-03	0.0142	0.0000	156.1116	156.1116	0.0128	0.0000	156.4305
Worker	0.2148	0.1564	1.5930	7.2700e-003	0.8406	4.5900e-003	0.8452	0.2236	4.23E-03	0.2278	0.0000	658.2535	658.2535	0.0108	0.0000	658.5243
Total	0.2282	0.5335	1.7689	8.8400e-003	0.8850	6.0000e-003	0.8910	0.2364	5.5700e-003	0.242	0.0000	814.3651	814.3651	0.0236	0.0000	814.9548

3.8 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2969	2.7857	2.8166	4.8500e-003		0.1243	0.1243		0.1155	0.1155	0.0000	413.0939	413.0939	0.1255	0.0000	416.2321

Total	0.2969	2.7857	2.8166	4.8500e-003		0.1243	0.1243		0.1155	0.1155	0.0000	413.0939	413.0939	0.1255	0.0000	416.2321
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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	5.3500e-003	0.2495	0.0840	2.7000e-004	3.2500e-003	2.9000e-004	3.5400e-003	8.70E-04	2.80E-04	1.15E-03	0.0000	27.9509	27.9509	3.2500e-003	0.0000	28.0322
Vendor	0.0180	0.5515	0.2450	1.7500e-003	0.0467	1.5800e-003	0.0483	0.0135	1.51E-03	0.015	0.0000	174.5814	174.5814	0.0147	0.0000	174.9477
Worker	1.1511	0.8382	8.5376	0.0390	4.5050	0.0246	4.5296	1.1982	0.0227	1.2208	0.0000	3,527.9058	3,527.9058	0.0581	0.0000	3,529.3571
Total	1.1745	1.6392	8.8665	0.0410	4.5550	0.0265	4.5815	1.2126	0.0244	1.237	0.0000	3,730.4381	3,730.4381	0.0760	0.0000	3,732.3371

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	0.0529	0.2292	2.6424	4.8500e-003		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003	0.0000	413.0934	413.0934	0.1255	0.0000	416.2316
Total	0.0529	0.2292	2.6424	4.8500e-003		7.0500e-003	7.0500e-003		7.0500e-003	7.0500e-003	0.0000	413.0934	413.0934	0.1255	0.0000	416.2316

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	5.3500e-003	0.2495	0.0840	2.7000e-004	3.2500e-003	2.9000e-004	3.5400e-003	8.70E-04	2.80E-04	1.15E-03	0.0000	27.9509	27.9509	3.2500e-003	0.0000	28.0322
Vendor	0.0180	0.5515	0.2450	1.7500e-003	0.0467	1.5800e-003	0.0483	0.0135	1.51E-03	0.015	0.0000	174.5814	174.5814	0.0147	0.0000	174.9477
Worker	1.1511	0.8382	8.5376	0.0390	4.5050	0.0246	4.5296	1.1982	0.0227	1.2208	0.0000	3,527.9058	3,527.9058	0.0581	0.0000	3,529.3571
Total	1.1745	1.6392	8.8665	0.0410	4.5550	0.0265	4.5815	1.2126	0.0244	1.2370	0.0000	3,730.4381	3,730.4381	0.0760	0.0000	3,732.3371

3.8 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	0.1505	1.3375	1.5353	2.7600e-003		0.0586	0.0586		0.0546	0.0546	0.0000	234.8720	234.8720	0.0713	0.0000	236.6553
Total	0.1505	1.3375	1.5353	2.7600e-003		0.0586	0.0586		0.0546	0.0546	0.0000	234.8720	234.8720	0.0713	0.0000	236.6553

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	2.8800e-003	0.1348	0.0492	1.5000e-004	2.9900e-003	1.5000e-004	3.1400e-003	7.7000e-004	1.40E-04	9.10E-04	0.0000	15.6056	15.6056	1.7600e-003	0.0000	15.6496
Vendor	9.6400e-003	0.2923	0.1400	9.8000e-004	0.0266	7.9000e-004	0.0274	7.6900e-003	7.60E-04	8.44E-03	0.0000	98.0577	98.0577	8.3600e-003	0.0000	98.2666
Worker	0.6241	0.4317	4.5434	0.0213	2.5623	0.0137	2.5760	0.6815	0.0126	0.6941	0.0000	1,933.0272	1,933.0272	0.0299	0.0000	1,933.7745
Total	0.6366	0.8588	4.7326	0.0225	2.5919	0.0146	2.6066	0.6900	0.0135	0.7035	0.0000	2,046.6905	2,046.6905	0.0400	0.0000	2,047.6907

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	0.0301	0.1304	1.5029	2.7600e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	234.8717	234.8717	0.0713	0.0000	236.6550
Total	0.0301	0.1304	1.5029	2.7600e-003		4.0100e-003	4.0100e-003		4.0100e-003	4.0100e-003	0.0000	234.8717	234.8717	0.0713	0.0000	236.6550

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
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Category	tons/yr										MT/yr					
Hauling	2.8800e-003	0.1348	0.0492	1.5000e-004	2.9900e-003	1.5000e-004	3.1400e-003	7.7000e-004	1.40E-04	9.10E-04	0.0000	15.6056	15.6056	1.7600e-003	0.0000	15.6496
Vendor	9.6400e-003	0.2923	0.1400	9.8000e-004	0.0266	7.9000e-004	0.0274	7.6900e-003	7.60E-04	8.44E-03	0.0000	98.0577	98.0577	8.3600e-003	0.0000	98.2666
Worker	0.6241	0.4317	4.5434	0.0213	2.5623	0.0137	2.5760	0.6815	0.0126	0.6941	0.0000	1,933.0272	1,933.0272	0.0299	0.0000	1,933.7745
Total	0.6366	0.8588	4.7326	0.0225	2.5919	0.0146	2.6066	0.6900	0.0135	0.7035	0.0000	2,046.6905	2,046.6905	0.0400	0.0000	2,047.6907

3.9 Exterior Facade - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.4830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0372	0.4332	0.3081	6.1000e-004		0.0174	0.0174		0.0160	0.0160	0.0000	53.9279	53.9279	0.0174	0.0000	54.3640
Total	2.5201	0.4332	0.3081	6.1000e-004		0.0174	0.0174		0.0160	0.0160	0.0000	53.9279	53.9279	0.0174	0.0000	54.3640

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0640	1.7624	0.8335	7.8200e-003	0.2245	7.0000e-003	0.2315	0.0648	6.70E-03	0.0715	0.0000	779.0370	779.0370	0.0633	0.0000	780.6191
Worker	0.0338	0.0245	0.2501	1.1300e-003	0.1310	7.2000e-004	0.1317	0.0348	6.60E-04	0.0355	0.0000	102.6724	102.6724	1.7000e-003	0.0000	102.7148
Total	0.0978	1.7869	1.0835	8.9500e-003	0.3555	7.7200e-003	0.3632	0.0997	7.3600e-003	0.107	0.0000	881.7094	881.7094	0.0650	0.0000	883.3339

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	2.4830					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.5500e-003	0.0327	0.2768	6.1000e-004		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	53.9279	53.9279	0.0174	0.0000	54.3639
Total	2.4905	0.0327	0.2768	6.1000e-004		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	53.9279	53.9279	0.0174	0.0000	54.3639

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0640	1.7624	0.8335	7.8200e-003	0.2245	7.0000e-003	0.2315	0.0648	6.70E-03	0.0715	0.0000	779.0370	779.0370	0.0633	0.0000	780.6191
Worker	0.0338	0.0245	0.2501	1.1300e-003	0.1310	7.2000e-004	0.1317	0.0348	6.60E-04	0.0355	0.0000	102.6724	102.6724	1.7000e-003	0.0000	102.7148
Total	0.0978	1.7869	1.0835	8.9500e-003	0.3555	7.7200e-003	0.3632	0.0997	7.3600e-003	0.107	0.0000	881.7094	881.7094	0.0650	0.0000	883.3339

3.10 Bus Stop - 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	0.0356	0.2696	0.2630	5.2000e-004		0.0117	0.0117		0.0112	0.0112	0.0000	42.9935	42.9935	0.0110	0.0000	43.2696
Total	0.0356	0.2696	0.2630	5.2000e-004		0.0117	0.0117		0.0112	0.0112	0.0000	42.9935	42.9935	0.0110	0.0000	43.2696

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8100e-003	0.0536	0.0261	1.9000e-004	5.3400e-003	1.6000e-004	5.5000e-003	1.5400e-003	1.50E-04	1.69E-03	0.0000	19.3613	19.3613	1.6400e-003	0.0000	19.4024
Worker	3.5500e-003	2.4500e-003	0.0258	1.2000e-004	0.0146	8.0000e-005	0.0146	3.8700e-003	7.00E-05	3.94E-03	0.0000	10.9862	10.9862	1.7000e-004	0.0000	10.9905
Total	5.3600e-003	0.0561	0.0520	3.1000e-004	0.0199	2.4000e-004	0.0201	5.4100e-003	2.2000e-004	5.63E-03	0.0000	30.3476	30.3476	1.8100e-003	0.0000	30.3928

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	4.1500e-003	0.0180	0.2175	5.2000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	42.9934	42.9934	0.0110	0.0000	43.2695
Total	4.1500e-003	0.0180	0.2175	5.2000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	42.9934	42.9934	0.0110	0.0000	43.2695

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8100e-003	0.0536	0.0261	1.9000e-004	5.3400e-003	1.6000e-004	5.5000e-003	1.5400e-003	1.50E-04	1.69E-03	0.0000	19.3613	19.3613	1.6400e-003	0.0000	19.4024
Worker	3.5500e-003	2.4500e-003	0.0258	1.2000e-004	0.0146	8.0000e-005	0.0146	3.8700e-003	7.00E-05	3.94E-03	0.0000	10.9862	10.9862	1.7000e-004	0.0000	10.9905
Total	5.3600e-003	0.0561	0.0520	3.1000e-004	0.0199	2.4000e-004	0.0201	5.4100e-003	2.2000e-004	5.6300e-003	0.0000	30.3476	30.3476	1.8100e-003	0.0000	30.3928

3.11 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					0.2880	0.0000	0.2880	0.1561	0.0000	0.1561	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0607	0.6826	0.2570	7.4000e-004		0.0283	0.0283		0.0260	0.0260	0.0000	64.9346	64.9346	0.0210	0.0000	65.4597
Total	0.0607	0.6826	0.2570	7.4000e-004	0.2880	0.0283	0.3163	0.1561	0.0260	0.1821	0.0000	64.9346	64.9346	0.0210	0.0000	65.4597

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	8.5200e-003	0.3983	0.1453	4.5000e-004	3.8500e-003	4.3000e-004	4.2900e-003	1.0700e-003	4.10E-04	1.48E-03	0.0000	46.1173	46.1173	5.2000e-003	0.0000	46.2474
Vendor	1.2000e-003	0.0379	0.0177	1.1000e-004	2.9300e-003	9.0000e-005	3.0300e-003	8.5000e-004	9.00E-05	9.40E-04	0.0000	11.2065	11.2065	9.6000e-004	0.0000	11.2306
Worker	0.0200	0.0138	0.1456	6.8000e-004	0.0821	4.4000e-004	0.0826	0.0218	4.00E-04	0.0223	0.0000	61.9623	61.9623	9.6000e-004	0.0000	61.9863
Total	0.0297	0.4500	0.3086	1.2400e-003	0.0889	9.6000e-004	0.0899	0.0238	9.0000e-004	0.0247	0.0000	119.2861	119.2861	7.1200e-003	0.0000	119.4642

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2880	0.0000	0.2880	0.1561	0.0000	0.1561	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0500e-003	0.0392	0.3319	7.4000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	64.9346	64.9346	0.0210	0.0000	65.4596
Total	9.0500e-003	0.0392	0.3319	7.4000e-004	0.2880	1.2100e-003	0.2892	0.1561	1.2100e-003	0.1573	0.0000	64.9346	64.9346	0.0210	0.0000	65.4596

Mitigated Construction Off-Site

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0240	0.0000	0.0240	3.6300e-003	0.0000	3.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0240	0.0000	0.0240	3.6300e-003	0.0000	3.6300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

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

3.13 Paving - Grundy Lane - 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	2.1700e-003	0.0254	0.0172	4.0000e-005		9.4000e-004	9.4000e-004		8.6000e-004	8.6000e-004	0.0000	3.5345	3.5345	1.1400e-003	0.0000	3.5631
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.1000e-003	0.0254	0.0172	4.0000e-005		9.4000e-004	9.4000e-004		8.6000e-004	8.6000e-004	0.0000	3.5345	3.5345	1.1400e-003	0.0000	3.5631

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0182	8.8900e-003	7.0000e-005	1.8200e-003	5.0000e-005	1.8700e-003	5.3000e-004	5.00E-05	5.80E-04	0.0000	6.5829	6.5829	5.6000e-004	0.0000	6.5968
Worker	1.2800e-003	8.8000e-004	9.3000e-003	4.0000e-005	5.2400e-003	3.0000e-005	5.2700e-003	1.3900e-003	3.00E-05	1.42E-03	0.0000	3.9550	3.9550	6.0000e-005	0.0000	3.9566
Total	1.9000e-003	0.0191	0.0182	1.1000e-004	7.0600e-003	8.0000e-005	7.1400e-003	1.9200e-003	8.0000e-005	2.0000e-003	0.0000	10.5379	10.5379	6.2000e-004	0.0000	10.5534

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	4.9000e-004	2.1400e-003	0.0181	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.5345	3.5345	1.1400e-003	0.0000	3.5631
Paving	3.9300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.4200e-003	2.1400e-003	0.0181	4.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	3.5345	3.5345	1.1400e-003	0.0000	3.5631

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	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2000e-004	0.0182	8.8900e-003	7.0000e-005	1.8200e-003	5.0000e-005	1.8700e-003	5.3000e-004	5.00E-05	5.80E-04	0.0000	6.5829	6.5829	5.6000e-004	0.0000	6.5968
Worker	1.2800e-003	8.8000e-004	9.3000e-003	4.0000e-005	5.2400e-003	3.0000e-005	5.2700e-003	1.3900e-003	3.00E-05	1.42E-03	0.0000	3.9550	3.9550	6.0000e-005	0.0000	3.9566

Total	1.9000e-003	0.0191	0.0182	1.1000e-004	7.0600e-003	8.0000e-005	7.1400e-003	1.9200e-003	8.0000e-005	2.0000e-003	0.0000	10.5379	10.5379	6.2000e-004	0.0000	10.5534
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Bayhill Specific Plan - Phase I Construction Analysis - San Mateo County, Summer

Bayhill Specific Plan - Phase I Construction Analysis

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	440.00	1000sqft	5.15	440,000.00	0
Enclosed Parking with Elevator	773.80	1000sqft	0.00	773,800.00	0
Parking Lot	3.00	Acre	3.00	130,680.00	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 & Electric Company

CO2 Intensity (lb/MWhr)	290	CH4 Intensity (lb/MWhr)	0.03	N2O Intensity (lb/MWhr)	0.004
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1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted electricity EF for 2020 per SB 100

Land Use - total site acreage, office, temp parking lot and Grundy lane acreage provided by project description and project sponsor; assumed remaining acreage from temporary parking and Grundy to be building acreage

Construction Phase - Start/end dates provided by the project sponsor; adjusted days/week to be consistent with total days or end dates provided by project sponsor (whichever is larger)

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - No additional equipment for this phase

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

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Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - No additional equipment for this phase

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Off-road Equipment - Construction equipment unit, hours/day, hp provided by project sponsor

Trips and VMT - trips and trip lengths provided by project sponsor; vendor trips assumed to also include water trucks; total hauling trucks assumed to be trips/day*schedule days provided by project sponsor

Demolition - Demoliton tonnage provided by project sponsor

Grading - Grading acreage provided by project sponsor

Vehicle Trips - Operation emissions to be modeled seperately

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4 final assumed for all pieces of equipment

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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tblConstructionPhase	NumDaysWeek	5.00	7.00
tblConstructionPhase	NumDaysWeek	5.00	7.00
tblGrading	AcresOfGrading	47.00	9.00
tblGrading	AcresOfGrading	0.00	9.00
tblGrading	MaterialExported	0.00	1,750.00
tblGrading	MaterialExported	0.00	173,000.00
tblGrading	MaterialImported	0.00	3,920.00
tblGrading	MaterialImported	0.00	6,850.00
tblLandUse	LotAcreage	10.10	5.15
tblLandUse	LotAcreage	17.76	0.00
tblOffRoadEquipment	HorsePower	158.00	325.00
tblOffRoadEquipment	HorsePower	247.00	130.00
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tblOffRoadEquipment	HorsePower	231.00	450.00
tblOffRoadEquipment	HorsePower	402.00	130.00
tblOffRoadEquipment	HorsePower	84.00	400.00
tblOffRoadEquipment	HorsePower	231.00	400.00
tblOffRoadEquipment	HorsePower	84.00	20.00
tblOffRoadEquipment	HorsePower	402.00	130.00
tblOffRoadEquipment	HorsePower	187.00	200.00
tblOffRoadEquipment	HorsePower	8.00	100.00
tblOffRoadEquipment	HorsePower	247.00	250.00
tblOffRoadEquipment	HorsePower	221.00	250.00
tblOffRoadEquipment	HorsePower	158.00	325.00
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tblOffRoadEquipment	HorsePower	231.00	400.00
tblOffRoadEquipment	HorsePower	84.00	10.00
tblOffRoadEquipment	HorsePower	402.00	130.00
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tblOffRoadEquipment	HorsePower	130.00	175.00
tblOffRoadEquipment	HorsePower	8.00	100.00
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tblOffRoadEquipment	HorsePower	231.00	450.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.03
tblProjectCharacteristics	CO2IntensityFactor	641.35	290
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblTripsAndVMT	HaulingTripLength	20.00	1.00
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tblTripsAndVMT	HaulingTripLength	20.00	0.00
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tblTripsAndVMT	HaulingTripNumber	219.00	0.00
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tblTripsAndVMT	HaulingTripNumber	0.00	8,400.00
tblTripsAndVMT	VendorTripLength	7.30	10.00
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tblTripsAndVMT	VendorTripLength	7.30	20.00

tblTripsAndVMT	VendorTripLength	7.30	20.00
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tblTripsAndVMT	WorkerTripLength	10.80	80.00
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tblTripsAndVMT	WorkerTripLength	10.80	65.00
tblTripsAndVMT	WorkerTripLength	10.80	80.00
tblTripsAndVMT	WorkerTripNumber	35.00	85.00
tblTripsAndVMT	WorkerTripNumber	8.00	30.00

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tblTripsAndVMT	WorkerTripNumber	521.00	250.00
tblTripsAndVMT	WorkerTripNumber	521.00	260.00
tblTripsAndVMT	WorkerTripNumber	521.00	575.00
tblTripsAndVMT	WorkerTripNumber	104.00	45.00
tblTripsAndVMT	WorkerTripNumber	521.00	5.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

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					
2020	13.7973	127.761	110.8467	0.4258	45.4672	3.7216	49.1887	18.8388	3.4522	22.291	0	43,496.53	43,496.53	5.0438	0	43,560.77
2021	52.9992	67.0169	149.267	0.5778	51.9713	2.1649	54.1362	13.8047	2.0227	15.8274	0	58,197.50	58,197.50	3.17	0	58,273.89
2022	15.1578	73.2087	119.6833	0.4586	54.3093	2.1575	56.4668	15.2135	2.0025	17.216	0	45,985.36	45,985.36	3.2285	0	46,066.07
Maximum	52.9992	127.7610	149.2670	0.5778	54.3093	3.7216	56.4668	18.8388	3.4522	22.2910	0.0000	58,197.4958	58,197.4958	5.0438	0.0000	58,273.8927

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					
2020	9.3089	51.8346	126.4155	0.4258	45.4672	0.4556	45.9228	18.8388	0.442	19.2808	0	43,496.53	43,496.53	5.0438	0	43,560.77
2021	50.7032	41.4984	153.9977	0.5778	51.9713	0.4402	52.4115	13.8047	0.4175	14.2222	0	58,197.50	58,197.50	3.17	0	58,273.89
2022	11.2992	30.9731	120.2545	0.4586	54.3093	0.3533	54.6626	15.2135	0.3357	15.5492	0	45,985.36	45,985.36	3.2285	0	46,066.07
Maximum	50.7032	51.8346	153.9977	0.5778	54.3093	0.4556	54.6626	18.8388	0.4420	19.2808	0.0000	58,197.4957	58,197.4957	5.0438	0.0000	58,273.8927

	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	12.99	53.61	-5.50	0.00	0.00	84.47	4.25	0.00	84.02	11.35	0.00	0.00	0.00	0.00	0.00	0.00

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	11.1085	1.1400e-003	0.1244	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2663	0.2663	7.0000e-004		0.2839
Energy	0.2419	2.1994	1.8475	0.0132		0.1672	0.1672		0.1672	0.1672		2,639.2909	2,639.2909	0.0506	0.0484	2,654.9749
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
Total	11.3504	2.2006	1.9719	0.0132	0.0000	0.1676	0.1676	0.0000	0.1676	0.1676		2,639.5572	2,639.5572	0.0513	0.0484	2,655.2587

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	11.1085	1.1400e-003	0.1244	1.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004		0.2663	0.2663	7.0000e-004		0.2839
Energy	0.2419	2.1994	1.8475	0.0132		0.1672	0.1672		0.1672	0.1672		2,639.2909	2,639.2909	0.0506	0.0484	2,654.9749
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
Total	11.3504	2.2006	1.9719	0.0132	0.0000	0.1676	0.1676	0.0000	0.1676	0.1676		2,639.5572	2,639.5572	0.0513	0.0484	2,655.2587

	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	1/1/2020	3/10/2020	5	50	
2	Demolition (Site Preparation Only)	Site Preparation	1/1/2020	3/10/2020	5	50	
3	Site Preparation	Site Preparation	3/11/2020	9/16/2020	7	190	
4	Paving - Temp Parking Lot	Paving	3/12/2020	3/15/2020	7	4	
5	Foundations and Garage Construction	Building Construction	9/15/2020	3/15/2021	7	182	
6	Superstructure	Building Construction	12/6/2020	4/21/2021	7	137	
7	Building Construction	Building Construction	4/7/2021	6/2/2022	7	422	
8	Exterior Facade	Architectural Coating	7/1/2021	10/31/2021	7	123	
9	Bus Stop	Building Construction	2/1/2022	5/11/2022	7	100	
10	Grading	Grading	3/1/2022	6/2/2022	7	94	
11	Paving - Grundy Lane (Demolition Only)	Demolition	5/2/2022	5/7/2022	7	6	

12	Paving - Grundy Lane	Paving	5/2/2022	5/7/2022	7	6	
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Acres of Grading (Site Preparation Phase): 9

Acres of Grading (Grading Phase): 9

Acres of Paving: 3

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 660,000; Non-Residential Outdoor: 220,000; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Excavators	6	8.00	325	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Rubber Tired Dozers	4	8.00	130	0.40
Demolition	Tractors/Loaders/Backhoes	4	8.00	200	0.37
Demolition (Site Preparation Only)	Rubber Tired Dozers	0	8.00	247	0.40
Demolition (Site Preparation Only)	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Superstructure	Air Compressors	0	6.00	78	0.48
Superstructure	Cranes	0	7.00	231	0.29
Superstructure	Cranes	2	6.00	450	0.29
Superstructure	Forklifts	0	8.00	89	0.20
Superstructure	Generator Sets	0	8.00	84	0.74
Superstructure	Off-Highway Trucks	2	8.00	130	0.38
Superstructure	Pumps	2	4.00	400	0.74
Superstructure	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Superstructure	Welders	0	8.00	46	0.45
Bus Stop	Cranes	0	7.00	231	0.29
Bus Stop	Cranes	1	2.00	400	0.29
Bus Stop	Forklifts	0	8.00	89	0.20
Bus Stop	Generator Sets	0	8.00	84	0.74

Bus Stop	Generator Sets	2	8.00	20	0.74
Bus Stop	Off-Highway Trucks	1	8.00	130	0.38
Bus Stop	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Bus Stop	Welders	0	8.00	46	0.45
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Graders	1	8.00	200	0.41
Grading	Pavers	0	8.00	130	0.42
Grading	Paving Equipment	0	8.00	132	0.36
Grading	Plate Compactors	1	8.00	100	0.43
Grading	Rollers	0	8.00	80	0.38
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	250	0.40
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	4.00	250	0.50
Site Preparation	Excavators	0	8.00	158	0.38
Site Preparation	Excavators	4	8.00	325	0.38
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	4	8.00	130	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	200	0.37
Paving - Temp Parking Lot		1	8.00		
Paving - Temp Parking Lot	Graders	2	8.00	200	0.43
Paving - Temp Parking Lot	Pavers	0	8.00	130	0.42
Paving - Temp Parking Lot	Pavers	1	8.00	100	0.42
Paving - Temp Parking Lot	Paving Equipment	0	8.00	132	0.36
Paving - Temp Parking Lot	Rollers	0	8.00	175	0.38
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Cranes	2	6.00	400	0.29

Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Generator Sets	4	8.00	10	0.74
Building Construction	Off-Highway Trucks	4	8.00	130	0.38
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving - Grundy Lane (Demolition Only)	Concrete/Industrial Saws	0	8.00	81	0.73
Paving - Grundy Lane (Demolition Only)	Excavators	0	8.00	158	0.38
Paving - Grundy Lane (Demolition Only)	Rubber Tired Dozers	0	8.00	247	0.40
Paving - Grundy Lane	Graders	1	8.00	200	0.41
Paving - Grundy Lane	Pavers	0	8.00	130	0.42
Paving - Grundy Lane	Pavers	1	8.00	175	0.42
Paving - Grundy Lane	Paving Equipment	0	8.00	132	0.36
Paving - Grundy Lane	Plate Compactors	2	8.00	100	0.43
Paving - Grundy Lane	Rollers	0	8.00	80	0.38
Exterior Facade	Air Compressors	0	6.00	78	0.48
Exterior Facade	Cranes	1	8.00	400	0.29
Foundations and Garage Construction	Cranes	0	7.00	231	0.29
Foundations and Garage Construction	Cranes	2	8.00	450	0.29
Foundations and Garage Construction	Forklifts	0	8.00	89	0.20
Foundations and Garage Construction	Generator Sets	0	8.00	84	0.74
Foundations and Garage Construction	Pumps	2	4.00	400	0.74
Foundations and Garage Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Foundations and Garage Construction	Welders	0	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	14	85.00	2.00	200.00	80.00	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition (Site Preparation Only)	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT

Superstructure	6	260.00	10.00	0.00	80.00	90.00	0.00	LD_Mix	HDT_Mix	HHDT
Bus Stop	4	5.00	6.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Grading	3	30.00	7.00	9,000.00	80.00	10.00	1.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	13	75.00	8.00	41,040.00	80.00	20.00	6.30	LD_Mix	HDT_Mix	HHDT
Paving - Temp Parking Lot	3	30.00	41.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Building Construction	10	575.00	26.00	8,400.00	80.00	15.00	1.00	LD_Mix	HDT_Mix	HHDT
Paving - Grundy Lane (Demolition Only)	0	0.00	0.00	0.00	0.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Paving - Grundy Lane	4	30.00	34.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT
Exterior Facade	1	45.00	2.00	0.00	65.00	2,052.00	0.00	LD_Mix	HDT_Mix	HHDT
Foundations and Garage Construction	4	250.00	21.00	0.00	80.00	20.00	0.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.3654	0.0000	4.3654	0.6610	0.0000	0.6610			0.0000			0.0000
Off-Road	5.8450	61.1970	34.9212	0.1068		2.6522	2.6522		2.4400	2.4400		10,337.7992	10,337.7992	3.3435		10,421.3856
Total	5.8450	61.1970	34.9212	0.1068	4.3654	2.6522	7.0176	0.6610	2.4400	3.1010		10,337.7992	10,337.7992	3.3435		10,421.3856

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	0.0351	1.2597	0.5344	3.2700e-003	0.0695	3.9700e-003	0.0734	0.0190	3.8000e-003	0.0228		369.9615	369.9615	0.0458		371.1070
Vendor	7.5900e-003	0.2284	0.0886	5.4000e-004	0.0135	1.1400e-003	0.0146	3.8800e-003	1.0900e-003	4.9800e-003		58.8527	58.8527	5.0200e-003		58.9782
Worker	1.2691	0.9018	11.3015	0.0472	5.1669	0.0279	5.1948	1.3698	0.0257	1.3955		4,710.3134	4,710.3134	0.0843		4,712.4204
Total	1.3119	2.3899	11.9245	0.0510	5.2498	0.0331	5.2829	1.3927	0.0306	1.4233		5,139.1275	5,139.1275	0.1351		5,142.5056

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					4.3654	0.0000	4.3654	0.6610	0.0000	0.6610			0.0000			0.0000
Off-Road	1.3175	5.7091	53.8104	0.1068		0.1757	0.1757		0.1757	0.1757	0.0000	10,337.7992	10,337.7992	3.3435		10,421.3856
Total	1.3175	5.7091	53.8104	0.1068	4.3654	0.1757	4.5411	0.6610	0.1757	0.8366	0.0000	10,337.7992	10,337.7992	3.3435		10,421.3856

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	0.0351	1.2597	0.5344	3.2700e-003	0.0695	3.9700e-003	0.0734	0.0190	3.8000e-003	0.0228		369.9615	369.9615	0.0458		371.1070

Vendor	7.5900e-003	0.2284	0.0886	5.4000e-004	0.0135	1.1400e-003	0.0146	3.8800e-003	1.0900e-003	4.9800e-003		58.8527	58.8527	5.0200e-003		58.9782
Worker	1.2691	0.9018	11.3015	0.0472	5.1669	0.0279	5.1948	1.3698	0.0257	1.3955		4,710.3134	4,710.3134	0.0843		4,712.4204
Total	1.3119	2.3899	11.9245	0.0510	5.2498	0.0331	5.2829	1.3927	0.0306	1.4233		5,139.1275	5,139.1275	0.1351		5,142.5056

3.3 Demolition (Site Preparation Only) - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004		0.0000	0.0000	0.0000		0.0000

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
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
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
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

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					3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	3.9600e-003	0.0000	3.9600e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000		0.0000

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
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
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
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

3.4 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					23.9921	0.0000	23.9921	13.1232	0.0000	13.1232			0.0000			0.0000
Off-Road	5.3338	56.3411	31.2992	0.0909		2.4839	2.4839		2.2852	2.2852		8,803.6312	8,803.6312	2.8473		8,874.8131
Total	5.3338	56.3411	31.2992	0.0909	23.9921	2.4839	26.4760	13.1232	2.2852	15.4084		8,803.6312	8,803.6312	2.8473		8,874.8131

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	0.8433	34.3530	12.3770	0.0659	1.1844	0.0772	1.2616	0.3244	0.0738	0.3982		7,460.8572	7,460.8572	0.9022		7,483.4127
Vendor	0.0640	1.7181	0.7070	5.3300e-003	0.1476	0.0120	0.1595	0.0424	0.0115	0.0539		584.9606	584.9606	0.0482		586.1646
Worker	1.1198	0.7957	9.9720	0.0416	4.5590	0.0247	4.5837	1.2086	0.0227	1.2314		4,156.1588	4,156.1588	0.0744		4,158.0180
Total	2.0271	36.8668	23.0559	0.1129	5.8910	0.1138	6.0048	1.5755	0.1080	1.6834		12,201.9767	12,201.9767	1.0247		12,227.5953

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					23.9921	0.0000	23.9921	13.1232	0.0000	13.1232			0.0000			0.0000

Off-Road	1.1222	4.8630	46.6516	0.0909		0.1496	0.1496		0.1496	0.1496	0.0000	8,803.6312	8,803.6312	2.8473		8,874.8130
Total	1.1222	4.8630	46.6516	0.0909	23.9921	0.1496	24.1417	13.1232	0.1496	13.2728	0.0000	8,803.6312	8,803.6312	2.8473		8,874.8130

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	0.8433	34.3530	12.3770	0.0659	1.1844	0.0772	1.2616	0.3244	0.0738	0.3982		7,460.8572	7,460.8572	0.9022		7,483.4127
Vendor	0.0640	1.7181	0.7070	5.3300e-003	0.1476	0.0120	0.1595	0.0424	0.0115	0.0539		584.9606	584.9606	0.0482		586.1646
Worker	1.1198	0.7957	9.9720	0.0416	4.5590	0.0247	4.5837	1.2086	0.0227	1.2314		4,156.1588	4,156.1588	0.0744		4,158.0180
Total	2.0271	36.8668	23.0559	0.1129	5.8910	0.1138	6.0048	1.5755	0.1080	1.6834		12,201.9767	12,201.9767	1.0247		12,227.5953

3.5 Paving - Temp Parking Lot - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4154	17.4701	6.7402	0.0185		0.6943	0.6943		0.6388	0.6388		1,789.9289	1,789.9289	0.5789		1,804.4014
Paving	1.9650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	3.3804	17.4701	6.7402	0.0185		0.6943	0.6943		0.6388	0.6388		1,789.9289	1,789.9289	0.5789		1,804.4014

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
Vendor	0.3280	8.8051	3.6232	0.0273	0.7563	0.0614	0.8176	0.2174	0.0587	0.2761		2,997.9233	2,997.9233	0.2468		3,004.0933
Worker	0.4479	0.3183	3.9888	0.0167	1.8236	9.8600e-003	1.8335	0.4835	9.0800e-003	0.4925		1,662.4635	1,662.4635	0.0298		1,663.2072
Total	0.7760	9.1234	7.6119	0.0440	2.5799	0.0712	2.6511	0.7009	0.0678	0.7686		4,660.3868	4,660.3868	0.2766		4,667.3005

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	0.2265	0.9813	9.4146	0.0185		0.0302	0.0302		0.0302	0.0302	0.0000	1,789.9289	1,789.9289	0.5789		1,804.4014
Paving	1.9650					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.1915	0.9813	9.4146	0.0185		0.0302	0.0302		0.0302	0.0302	0.0000	1,789.9289	1,789.9289	0.5789		1,804.4014

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
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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	0.3280	8.8051	3.6232	0.0273	0.7563	0.0614	0.8176	0.2174	0.0587	0.2761	2,997.9233	2,997.9233	0.2468		3,004.0933
Worker	0.4479	0.3183	3.9888	0.0167	1.8236	9.8600e-003	1.8335	0.4835	9.0800e-003	0.4925	1,662.4635	1,662.4635	0.0298		1,663.2072
Total	0.7760	9.1234	7.6119	0.0440	2.5799	0.0712	2.6511	0.7009	0.0678	0.7686	4,660.3868	4,660.3868	0.2766		4,667.3005

3.6 Foundations and Garage Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5356	27.3908	17.5556	0.0486		1.0102	1.0102		0.9532	0.9532	5,142.1396	5,142.1396	0.7975			5,162.0773
Total	2.5356	27.3908	17.5556	0.0486		1.0102	1.0102		0.9532	0.9532	5,142.1396	5,142.1396	0.7975			5,162.0773

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
Vendor	0.1680	4.5099	1.8558	0.0140	0.3874	0.0314	0.4188	0.1114	0.0301	0.1414	1,535.5217	1,535.5217	0.1264			1,538.6820

Worker	3.7328	2.6524	33.2398	0.1388	15.1967	0.0822	15.2789	4.0288	0.0757	4.1045		13,853.86 28	13,853.862 8	0.2479		13,860.05 99
Total	3.9008	7.1623	35.0956	0.1528	15.5841	0.1136	15.6977	4.1402	0.1058	4.2459		15,389.38 45	15,389.384 5	0.3743		15,398.74 18

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	0.5894	2.5542	21.6124	0.0486		0.0786	0.0786		0.0786	0.0786	0.0000	5,142.139 6	5,142.1396	0.7975		5,162.077 3
Total	0.5894	2.5542	21.6124	0.0486		0.0786	0.0786		0.0786	0.0786	0.0000	5,142.139 6	5,142.1396	0.7975		5,162.077 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
Vendor	0.1680	4.5099	1.8558	0.0140	0.3874	0.0314	0.4188	0.1114	0.0301	0.1414		1,535.521 7	1,535.5217	0.1264		1,538.682 0
Worker	3.7328	2.6524	33.2398	0.1388	15.1967	0.0822	15.2789	4.0288	0.0757	4.1045		13,853.86 28	13,853.862 8	0.2479		13,860.05 99
Total	3.9008	7.1623	35.0956	0.1528	15.5841	0.1136	15.6977	4.1402	0.1058	4.2459		15,389.38 45	15,389.384 5	0.3743		15,398.74 18

3.6 Foundations and Garage Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3463	24.1162	16.5274	0.0486		0.8986	0.8986		0.8476	0.8476		5,141.6622	5,141.6622	0.7921		5,161.4655
Total	2.3463	24.1162	16.5274	0.0486		0.8986	0.8986		0.8476	0.8476		5,141.6622	5,141.6622	0.7921		5,161.4655

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
Vendor	0.1329	3.9392	1.7955	0.0138	0.3874	0.0123	0.3997	0.1114	0.0118	0.1231		1,517.1473	1,517.1473	0.1256		1,520.2878
Worker	3.5146	2.3891	30.9182	0.1338	15.1967	0.0795	15.2762	4.0288	0.0732	4.1020		13,358.7641	13,358.7641	0.2237		13,364.3555
Total	3.6475	6.3283	32.7136	0.1476	15.5841	0.0918	15.6759	4.1402	0.0850	4.2252		14,875.9114	14,875.9114	0.3493		14,884.6433

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
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Category	lb/day										lb/day					
Off-Road	0.5894	2.5542	21.6124	0.0486		0.0786	0.0786		0.0786	0.0786	0.0000	5,141.6622	5,141.6622	0.7921		5,161.4655
Total	0.5894	2.5542	21.6124	0.0486		0.0786	0.0786		0.0786	0.0786	0.0000	5,141.6622	5,141.6622	0.7921		5,161.4655

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
Vendor	0.1329	3.9392	1.7955	0.0138	0.3874	0.0123	0.3997	0.1114	0.0118	0.1231		1,517.1473	1,517.1473	0.1256		1,520.2878
Worker	3.5146	2.3891	30.9182	0.1338	15.1967	0.0795	15.2762	4.0288	0.0732	4.1020		13,358.7641	13,358.7641	0.2237		13,364.3555
Total	3.6475	6.3283	32.7136	0.1476	15.5841	0.0918	15.6759	4.1402	0.0850	4.2252		14,875.9114	14,875.9114	0.3493		14,884.6433

3.7 Superstructure - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.7066	27.5247	20.3120	0.0514		1.0707	1.0707		1.0089	1.0089		5,417.4731	5,417.4731	0.8866		5,439.6370
Total	2.7066	27.5247	20.3120	0.0514		1.0707	1.0707		1.0089	1.0089		5,417.4731	5,417.4731	0.8866		5,439.6370

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
Vendor	0.3117	7.6898	3.3141	0.0286	0.8291	0.0659	0.8951	0.2383	0.0631	0.3013		3,139.5175	3,139.5175	0.2536		3,145.8565
Worker	3.8821	2.7585	34.5694	0.1444	15.8046	0.0855	15.8901	4.1900	0.0787	4.2687		14,408.0173	14,408.0173	0.2578		14,414.4623
Total	4.1938	10.4482	37.8835	0.1730	16.6337	0.1514	16.7851	4.4282	0.1418	4.5700		17,547.5349	17,547.5349	0.5114		17,560.3188

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	0.6249	2.7080	25.5279	0.0514		0.0833	0.0833		0.0833	0.0833	0.0000	5,417.4731	5,417.4731	0.8866		5,439.6370
Total	0.6249	2.7080	25.5279	0.0514		0.0833	0.0833		0.0833	0.0833	0.0000	5,417.4731	5,417.4731	0.8866		5,439.6370

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
Vendor	0.3117	7.6898	3.3141	0.0286	0.8291	0.0659	0.8951	0.2383	0.0631	0.3013		3,139.5175	3,139.5175	0.2536		3,145.8565
Worker	3.8821	2.7585	34.5694	0.1444	15.8046	0.0855	15.8901	4.1900	0.0787	4.2687		14,408.0173	14,408.0173	0.2578		14,414.4623
Total	4.1938	10.4482	37.8835	0.1730	16.6337	0.1514	16.7851	4.4282	0.1418	4.5700		17,547.5349	17,547.5349	0.5114		17,560.3188

3.7 Superstructure - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4915	24.0687	19.5021	0.0514		0.9363	0.9363		0.8823	0.8823		5,417.4503	5,417.4503	0.8813		5,439.4835
Total	2.4915	24.0687	19.5021	0.0514		0.9363	0.9363		0.8823	0.8823		5,417.4503	5,417.4503	0.8813		5,439.4835

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
Vendor	0.2402	6.5544	3.2028	0.0282	0.8292	0.0253	0.8545	0.2383	0.0242	0.2625		3,102.7278	3,102.7278	0.2534		3,109.0638
Worker	3.6552	2.4846	32.1549	0.1392	15.8046	0.0827	15.8873	4.1900	0.0762	4.2661		13,893.1147	13,893.1147	0.2326		13,898.9297
Total	3.8954	9.0390	35.3577	0.1674	16.6338	0.1080	16.7418	4.4282	0.1003	4.5286		16,995.8425	16,995.8425	0.4860		17,007.9935

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	0.6249	2.7080	25.5279	0.0514		0.0833	0.0833		0.0833	0.0833	0.0000	5,417.4503	5,417.4503	0.8813		5,439.4835
Total	0.6249	2.7080	25.5279	0.0514		0.0833	0.0833		0.0833	0.0833	0.0000	5,417.4503	5,417.4503	0.8813		5,439.4835

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
Vendor	0.2402	6.5544	3.2028	0.0282	0.8292	0.0253	0.8545	0.2383	0.0242	0.2625		3,102.7278	3,102.7278	0.2534		3,109.0638
Worker	3.6552	2.4846	32.1549	0.1392	15.8046	0.0827	15.8873	4.1900	0.0762	4.2661		13,893.1147	13,893.1147	0.2326		13,898.9297

Total	3.8954	9.0390	35.3577	0.1674	16.6338	0.1080	16.7418	4.4282	0.1003	4.5286		16,995.8425	16,995.8425	0.4860		17,007.9935
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3.8 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2077	20.7114	20.9414	0.0361		0.9242	0.9242		0.8586	0.8586		3,385.5621	3,385.5621	1.0288		3,411.2812
Total	2.2077	20.7114	20.9414	0.0361		0.9242	0.9242		0.8586	0.8586		3,385.5621	3,385.5621	1.0288		3,411.2812

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	0.0379	1.8707	0.5672	2.0900e-003	0.0252	1.9800e-003	0.0271	6.7100e-003	1.9000e-003	8.6000e-003		237.1619	237.1619	0.0258		237.8062
Vendor	0.1317	4.0083	1.7869	0.0131	0.3599	0.0116	0.3715	0.1035	0.0111	0.1146		1,436.3214	1,436.3214	0.1196		1,439.3107
Worker	8.0836	5.4948	71.1118	0.3078	34.9525	0.1829	35.1354	9.2663	0.1684	9.4347		30,725.1575	30,725.1575	0.5144		30,738.0176
Total	8.2532	11.3738	73.4659	0.3229	35.3375	0.1965	35.5340	9.3764	0.1815	9.5579		32,398.6408	32,398.6408	0.6597		32,415.1345

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	0.3932	1.7040	19.6462	0.0361		0.0524	0.0524		0.0524	0.0524	0.0000	3,385.5621	3,385.5621	1.0288		3,411.2812
Total	0.3932	1.7040	19.6462	0.0361		0.0524	0.0524		0.0524	0.0524	0.0000	3,385.5621	3,385.5621	1.0288		3,411.2812

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	0.0379	1.8707	0.5672	2.0900e-003	0.0252	1.9800e-003	0.0271	6.7100e-003	1.9000e-003	8.6000e-003		237.1619	237.1619	0.0258		237.8062
Vendor	0.1317	4.0083	1.7869	0.0131	0.3599	0.0116	0.3715	0.1035	0.0111	0.1146		1,436.3214	1,436.3214	0.1196		1,439.3107
Worker	8.0836	5.4948	71.1118	0.3078	34.9525	0.1829	35.1354	9.2663	0.1684	9.4347		30,725.1575	30,725.1575	0.5144		30,738.0176
Total	8.2532	11.3738	73.4659	0.3229	35.3375	0.1965	35.5340	9.3764	0.1815	9.5579		32,398.6408	32,398.6408	0.6597		32,415.1345

3.8 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	lb/day										lb/day					

Off-Road	1.9667	17.4832	20.0698	0.0361		0.7664	0.7664		0.7131	0.7131		3,384.3410	3,384.3410	1.0279		3,410.0372
Total	1.9667	17.4832	20.0698	0.0361		0.7664	0.7664		0.7131	0.7131		3,384.3410	3,384.3410	1.0279		3,410.0372

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	0.0359	1.7768	0.5852	2.0400e-003	0.0408	1.7500e-003	0.0426	0.0106	1.6700e-003	0.0122		232.8193	232.8193	0.0246		233.4337
Vendor	0.1243	3.7364	1.7980	0.0129	0.3599	0.0102	0.3702	0.1035	9.7900e-003	0.1133		1,418.3747	1,418.3747	0.1199		1,421.3726
Worker	7.6895	4.9769	66.6225	0.2965	34.9525	0.1791	35.1315	9.2663	0.1649	9.4311		29,596.4963	29,596.4963	0.4662		29,608.1505
Total	7.8497	10.4901	69.0056	0.3114	35.3532	0.1910	35.5442	9.3803	0.1763	9.5566		31,247.6904	31,247.6904	0.6107		31,262.9568

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	0.3932	1.7040	19.6462	0.0361		0.0524	0.0524		0.0524	0.0524	0.0000	3,384.3410	3,384.3410	1.0279		3,410.0372
Total	0.3932	1.7040	19.6462	0.0361		0.0524	0.0524		0.0524	0.0524	0.0000	3,384.3410	3,384.3410	1.0279		3,410.0372

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	0.0359	1.7768	0.5852	2.0400e-003	0.0408	1.7500e-003	0.0426	0.0106	1.6700e-003	0.0122		232.8193	232.8193	0.0246		233.4337
Vendor	0.1243	3.7364	1.7980	0.0129	0.3599	0.0102	0.3702	0.1035	9.7900e-003	0.1133		1,418.3747	1,418.3747	0.1199		1,421.3726
Worker	7.6895	4.9769	66.6225	0.2965	34.9525	0.1791	35.1315	9.2663	0.1649	9.4311		29,596.4963	29,596.4963	0.4662		29,608.1505
Total	7.8497	10.4901	69.0056	0.3114	35.3532	0.1910	35.5442	9.3803	0.1763	9.5566		31,247.6904	31,247.6904	0.6107		31,262.9568

3.9 Exterior Facade - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	40.3736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.6043	7.0431	5.0090	9.9800e-003		0.2834	0.2834		0.2607	0.2607		966.5915	966.5915	0.3126		974.4069
Total	40.9779	7.0431	5.0090	9.9800e-003		0.2834	0.2834		0.2607	0.2607		966.5915	966.5915	0.3126		974.4069

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
Vendor	1.0399	27.5376	13.8017	0.1271	3.7801	0.1139	3.8940	1.0861	0.1089	1.1950		13,963.6969	13,963.6969	1.1361		13,992.0983
Worker	0.5205	0.3511	4.5458	0.0196	2.2226	0.0117	2.2343	0.5893	0.0108	0.6000		1,955.5138	1,955.5138	0.0328		1,956.3346
Total	1.5604	27.8886	18.3475	0.1467	6.0027	0.1255	6.1282	1.6754	0.1197	1.7950		15,919.2107	15,919.2107	1.1689		15,948.4329

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	40.3736					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1228	0.5319	4.5010	9.9800e-003		0.0164	0.0164		0.0164	0.0164	0.0000	966.5915	966.5915	0.3126		974.4069
Total	40.4964	0.5319	4.5010	9.9800e-003		0.0164	0.0164		0.0164	0.0164	0.0000	966.5915	966.5915	0.3126		974.4069

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

Vendor	1.0399	27.5376	13.8017	0.1271	3.7801	0.1139	3.8940	1.0861	0.1089	1.1950		13,963.69 69	13,963.696 9	1.1361		13,992.09 83
Worker	0.5205	0.3511	4.5458	0.0196	2.2226	0.0117	2.2343	0.5893	0.0108	0.6000		1,955.513 8	1,955.5138	0.0328		1,956.334 6
Total	1.5604	27.8886	18.3475	0.1467	6.0027	0.1255	6.1282	1.6754	0.1197	1.7950		15,919.21 07	15,919.210 7	1.1689		15,948.43 29

3.10 Bus Stop - 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	lb/day										lb/day					
Off-Road	0.7118	5.3914	5.2590	0.0104		0.2346	0.2346		0.2236	0.2236		947.8439	947.8439	0.2435		953.9311
Total	0.7118	5.3914	5.2590	0.0104		0.2346	0.2346		0.2236	0.2236		947.8439	947.8439	0.2435		953.9311

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
Vendor	0.0359	1.0456	0.5171	3.8800e-003	0.1107	3.1000e-003	0.1138	0.0318	2.9600e-003	0.0348		428.0980	428.0980	0.0361		429.0000
Worker	0.0669	0.0433	0.5793	2.5800e-003	0.3039	1.5600e-003	0.3055	0.0806	1.4300e-003	0.0820		257.3608	257.3608	4.0500e-003		257.4622
Total	0.1027	1.0889	1.0965	6.4600e-003	0.4146	4.6600e-003	0.4193	0.1124	4.3900e-003	0.1168		685.4588	685.4588	0.0401		686.4621

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	0.0830	0.3595	4.3489	0.0104		0.0111	0.0111		0.0111	0.0111	0.0000	947.8439	947.8439	0.2435		953.9311
Total	0.0830	0.3595	4.3489	0.0104		0.0111	0.0111		0.0111	0.0111	0.0000	947.8439	947.8439	0.2435		953.9311

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
Vendor	0.0359	1.0456	0.5171	3.8800e-003	0.1107	3.1000e-003	0.1138	0.0318	2.9600e-003	0.0348		428.0980	428.0980	0.0361		429.0000
Worker	0.0669	0.0433	0.5793	2.5800e-003	0.3039	1.5600e-003	0.3055	0.0806	1.4300e-003	0.0820		257.3608	257.3608	4.0500e-003		257.4622
Total	0.1027	1.0889	1.0965	6.4600e-003	0.4146	4.6600e-003	0.4193	0.1124	4.3900e-003	0.1168		685.4588	685.4588	0.0401		686.4621

3.11 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	lb/day										lb/day					
Fugitive Dust					6.1283	0.0000	6.1283	3.3219	0.0000	3.3219			0.0000			0.0000
Off-Road	1.2911	14.5236	5.4670	0.0157		0.6013	0.6013		0.5532	0.5532		1,522.9401	1,522.9401	0.4926		1,535.2539
Total	1.2911	14.5236	5.4670	0.0157	6.1283	0.6013	6.7296	3.3219	0.5532	3.8751		1,522.9401	1,522.9401	0.4926		1,535.2539

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	0.1728	8.5464	2.8147	9.8300e-003	0.0850	8.4000e-003	0.0934	0.0234	8.0300e-003	0.0315		1,119.8680	1,119.8680	0.1182		1,122.8232
Vendor	0.0251	0.7920	0.3648	2.3900e-003	0.0647	1.9000e-003	0.0666	0.0186	1.8200e-003	0.0204		264.2926	264.2926	0.0225		264.8545
Worker	0.4012	0.2597	3.4760	0.0155	1.8236	9.3400e-003	1.8330	0.4835	8.6000e-003	0.4921		1,544.1650	1,544.1650	0.0243		1,544.7731
Total	0.5990	9.5981	6.6555	0.0277	1.9733	0.0196	1.9930	0.5255	0.0185	0.5440		2,928.3256	2,928.3256	0.1650		2,932.4508

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					6.1283	0.0000	6.1283	3.3219	0.0000	3.3219			0.0000			0.0000

Off-Road	0.1926	0.8346	7.0619	0.0157		0.0257	0.0257		0.0257	0.0257	0.0000	1,522.9401	1,522.9401	0.4926		1,535.2539
Total	0.1926	0.8346	7.0619	0.0157	6.1283	0.0257	6.1540	3.3219	0.0257	3.3476	0.0000	1,522.9401	1,522.9401	0.4926		1,535.2539

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	0.1728	8.5464	2.8147	9.8300e-003	0.0850	8.4000e-003	0.0934	0.0234	8.0300e-003	0.0315		1,119.8680	1,119.8680	0.1182		1,122.8232
Vendor	0.0251	0.7920	0.3648	2.3900e-003	0.0647	1.9000e-003	0.0666	0.0186	1.8200e-003	0.0204		264.2926	264.2926	0.0225		264.8545
Worker	0.4012	0.2597	3.4760	0.0155	1.8236	9.3400e-003	1.8330	0.4835	8.6000e-003	0.4921		1,544.1650	1,544.1650	0.0243		1,544.7731
Total	0.5990	9.5981	6.6555	0.0277	1.9733	0.0196	1.9930	0.5255	0.0185	0.5440		2,928.3256	2,928.3256	0.1650		2,932.4508

3.12 Paving - Grundy Lane (Demolition Only) - 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	lb/day										lb/day					
Fugitive Dust					7.9890	0.0000	7.9890	1.2096	0.0000	1.2096			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	7.9890	0.0000	7.9890	1.2096	0.0000	1.2096		0.0000	0.0000	0.0000		0.0000

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
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
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
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

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					7.9890	0.0000	7.9890	1.2096	0.0000	1.2096			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000	7.9890	0.0000	7.9890	1.2096	0.0000	1.2096	0.0000	0.0000	0.0000	0.0000		0.0000

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
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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
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
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
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

3.13 Paving - Grundy Lane - 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	lb/day										lb/day					
Off-Road	0.7224	8.4485	5.7236	0.0134		0.3131	0.3131		0.2880	0.2880		1,298.7070	1,298.7070	0.4200		1,309.2078
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	2.0324	8.4485	5.7236	0.0134		0.3131	0.3131		0.2880	0.2880		1,298.7070	1,298.7070	0.4200		1,309.2078

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
Vendor	0.2033	5.9253	2.9304	0.0220	0.6273	0.0175	0.6448	0.1803	0.0168	0.1971		2,425.8887	2,425.8887	0.2044		2,430.9998

Worker	0.4012	0.2597	3.4760	0.0155	1.8236	9.3400e-003	1.8330	0.4835	8.6000e-003	0.4921		1,544.1650	1,544.1650	0.0243		1,544.7731
Total	0.6044	6.1850	6.4064	0.0375	2.4509	0.0269	2.4778	0.6638	0.0254	0.6892		3,970.0537	3,970.0537	0.2288		3,975.7728

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	0.1646	0.7131	6.0336	0.0134		0.0219	0.0219		0.0219	0.0219	0.0000	1,298.7070	1,298.7070	0.4200		1,309.2078
Paving	1.3100					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.4746	0.7131	6.0336	0.0134		0.0219	0.0219		0.0219	0.0219	0.0000	1,298.7070	1,298.7070	0.4200		1,309.2078

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
Vendor	0.2033	5.9253	2.9304	0.0220	0.6273	0.0175	0.6448	0.1803	0.0168	0.1971		2,425.8887	2,425.8887	0.2044		2,430.9998
Worker	0.4012	0.2597	3.4760	0.0155	1.8236	9.3400e-003	1.8330	0.4835	8.6000e-003	0.4921		1,544.1650	1,544.1650	0.0243		1,544.7731
Total	0.6044	6.1850	6.4064	0.0375	2.4509	0.0269	2.4778	0.6638	0.0254	0.6892		3,970.0537	3,970.0537	0.2288		3,975.7728

Bayhill Specific Plan - Existing Specific Plan Area (2017) - San Mateo County, Annual

Bayhill Specific Plan - Existing Specific Plan Area (2017)

San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	1,557.85	1000sqft	92.20	1,557,847.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	349	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted PG&E EFs to 2017 per SB 100

Land Use - revised to include project specific information; as there are no changes in retail or hotel sf under 2040 No Project Conditions from existing conditions, only office use is modeled in this model

Construction Phase - Operational analysis only

Off-road Equipment - Operational analysis only

Off-road Equipment - Operational analysis only

Off-road Equipment - Operational analysis only

Off-road Equipment - Operational analysis only

Off-road Equipment - Operational analysis only

Off-road Equipment - Operational analysis only

Trips and VMT - Operational analysis only

Grading - Operational analysis only

Architectural Coating - Operational analysis only

Vehicle Trips - Mobile emissions to be calculated separately

Energy Use - Using historical data; assumes no changes in building type therefore less efficient buildings at baseline

Stationary Sources - Emergency Generators and Fire Pumps - Emergency Generators and Fire Pumps - Back up generator information provided by project sponsor and assumed to apply to existing

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	778,924.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,336,771.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	PhaseEndDate	5/19/2016	12/31/2015
tblConstructionPhase	PhaseEndDate	8/11/2016	5/19/2016
tblConstructionPhase	PhaseEndDate	3/16/2017	8/11/2016
tblConstructionPhase	PhaseEndDate	2/23/2023	3/16/2017
tblConstructionPhase	PhaseEndDate	7/27/2023	2/23/2023
tblConstructionPhase	PhaseEndDate	12/28/2023	7/27/2023
tblLandUse	LandUseSquareFeet	1,557,850.00	1,557,847.00
tblLandUse	LotAcreage	35.76	92.20
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	255.00	0.00
tblTripsAndVMT	WorkerTripNumber	499.00	0.00
tblTripsAndVMT	WorkerTripNumber	100.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

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	6.8979	1.4000e-004	0.0146	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0	0.0278	0.0278	8.00E-05	0	0.0298
Energy	0.1903	1.7297	1.4529	0.0104		0.1315	0.1315		0.1315	0.1315	0	5,500.77	5,500.77	0.3782	0.076	5,532.87
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Stationary	0.0225	0.1004	0.0572	1.1000e-004		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0	10.4186	10.4186	1.46E-03	0	10.4551
Waste						0.0000	0.0000		0.0000	0.0000	294.0933	0	294.0933	17.3804	0	728.6037
Water						0.0000	0.0000		0.0000	0.0000	87.8421	331.1982	419.0402	9.0535	0.2168	709.994
Total	7.1106	1.8302	1.5248	0.0105	0.0000	0.1348	0.1348	0.0000	0.1348	0.1348	381.9354	5,842.41	6,224.35	26.8137	0.2928	6,981.95

5.0 Energy Detail

Historical Energy Use: Y

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	3,617.8127	3,617.8127	0.3421	0.0415	3,638.7214
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3,617.8127	3,617.8127	0.3421	0.0415	3,638.7214
NaturalGas Mitigated	0.1903	1.7297	1.4529	0.0104		0.1315	0.1315		0.1315	0.1315	0.0000	1,882.9545	1,882.9545	0.0361	0.0345	1,894.1440
NaturalGas Unmitigated	0.1903	1.7297	1.4529	0.0104		0.1315	0.1315		0.1315	0.1315	0.0000	1,882.9545	1,882.9545	0.0361	0.0345	1,894.1440

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					
Office Park	3.52852e+007	0.1903	1.7297	1.4529	0.0104		0.1315	0.1315		0.1315	0.1315	0.0000	1,882.9545	1,882.9545	0.0361	0.0345	1,894.1440
Total		0.1903	1.7297	1.4529	0.0104		0.1315	0.1315		0.1315	0.1315	0.0000	1,882.9545	1,882.9545	0.0361	0.0345	1,894.1440

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			

Office Park	2.29E+07	3,617.8127	0.3421	0.0415	3,638.7214
Total		3,617.8127	0.3421	0.0415	3,638.7214

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	6.8979	1.4000e-004	0.0146	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	8.0000e-005	0.0000	0.0298
Unmitigated	6.8979	1.4000e-004	0.0146	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	8.0000e-005	0.0000	0.0298

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	0.8123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0842					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4100e-003	1.4000e-004	0.0146	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	8.0000e-005	0.0000	0.0298
Total	6.8979	1.4000e-004	0.0146	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.0278	0.0278	8.0000e-005	0.0000	0.0298

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
--	-----------	-----	-----	------

Category	MT/yr			
Mitigated	419.0402	9.0535	0.2168	709.9940
Unmitigated	419.0402	9.0535	0.2168	709.9940

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Office Park	276.883 / 169.702	419.0402	9.0535	0.2168	709.9940
Total		419.0402	9.0535	0.2168	709.9940

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	294.0933	17.3804	0.0000	728.6037
Unmitigated	294.0933	17.3804	0.0000	728.6037

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	1448.8	294.0933	17.3804	0.0000	728.6037

Total		294.0933	17.3804	0.0000	728.6037
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10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750,0000 HP)	0.0225	0.1004	0.0572	1.1000e-004		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0.0000	10.4186	10.4186	1.4600e-003	0.0000	10.4551
Total	0.0225	0.1004	0.0572	1.1000e-004		3.3000e-003	3.3000e-003		3.3000e-003	3.3000e-003	0.0000	10.4186	10.4186	1.4600e-003	0.0000	10.4551

Specific Plan - Existing (2017) - San Mateo County, Annual

Specific Plan - Existing (2017)
San Mateo County, Annual**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	1,557.85	1000sqft	81.70	1,557,847.00	0
Hotel	133.00	Room	4.10	79,152.00	0
Regional Shopping Center	121.85	1000sqft	6.40	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	349	CH4 Intensity	0.033	N2O Intensity	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	879,423.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,638,268.00	0.00
tblEnergyUse	LightingElect	3.82	3.13
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	LightingElect	5.88	4.88
tblEnergyUse	T24E	2.95	2.19
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24E	2.90	2.24
tblEnergyUse	T24NG	31.80	29.38
tblEnergyUse	T24NG	21.48	17.44
tblEnergyUse	T24NG	4.68	3.90
tblLandUse	LandUseSquareFeet	1,557,850.00	1,557,847.00
tblLandUse	LandUseSquareFeet	193,116.00	79,152.00
tblLandUse	LotAcreage	35.76	81.70
tblLandUse	LotAcreage	4.43	4.10
tblLandUse	LotAcreage	2.80	6.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	288.00	0.00
tblTripsAndVMT	WorkerTripNumber	571.00	0.00
tblTripsAndVMT	WorkerTripNumber	114.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.7879	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0	0.0324	0.0324	9.00E-05	0	0.0346
Energy	0.1749	1.5903	1.3358	9.5400e-		0.1209	0.1209		0.1209	0.1209	0	5,130.73	5,130.73	0.3546	0.0707	5,160.67
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Stationary	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0	10.4186	10.4186	1.46E-03	0	10.4551
Waste						0.0000	0.0000		0.0000	0.0000	334.8458	0	334.8458	19.7888	0	829.5662
Water						0.0000	0.0000		0.0000	0.0000	91.7758	345.0921	436.8679	9.4589	0.2265	740.846
Total	7.9853	1.6908	1.4101	9.6500e-	0.0000	0.1242	0.1242	0.0000	0.1242	0.1242	426.6216	5,486.273	5,912.8952	29.6039	0.2972	6,741.567

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.7879	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	9.0000e-	0.0000	0.0346
Energy	0.1749	1.5903	1.3358	9.5400e-		0.1209	0.1209		0.1209	0.1209	0.0000	5,130.730	5,130.7305	0.3546	0.0707	5,160.665
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
Stationary	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551
Waste						0.0000	0.0000		0.0000	0.0000	334.8458	0.0000	334.8458	19.7888	0.0000	829.5662
Water						0.0000	0.0000		0.0000	0.0000	91.7758	345.0921	436.8679	9.4589	0.2265	740.8460

Total	7.9853	1.6908	1.4101	9.6500e-	0.0000	0.1242	0.1242	0.0000	0.1242	0.1242	426.6216	5,486.273	5,912.8952	29.6039	0.2972	6,741.567
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	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	3,399.509	3,399.5091	0.3214	0.0390	3,419.156
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	3,399.509	3,399.5091	0.3214	0.0390	3,419.156
NaturalGas	0.1749	1.5903	1.3358	9.5400e-		0.1209	0.1209		0.1209	0.1209	0.0000	1,731.221	1,731.2214	0.0332	0.0317	1,741.509
NaturalGas	0.1749	1.5903	1.3358	9.5400e-		0.1209	0.1209		0.1209	0.1209	0.0000	1,731.221	1,731.2214	0.0332	0.0317	1,741.509

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.89E+06	0.0156	0.1417	0.1190	8.5000e-		0.0108	0.0108		0.0108	0.0108	0.0000	154.2128	154.2128	2.9600e-	2.8300e-	155.1293
Office Park	2.90E+07	0.1563	1.4212	1.1938	8.5300e-		0.1080	0.1080		0.1080	0.1080	0.0000	1,547.0986	1,547.098	0.0297	0.0284	1,556.292
Regional	560492	3.0200e-	0.0275	0.0231	1.6000e-		2.0900e-	2.0900e-		2.0900e-	2.0900e-	0.0000	29.9100	29.9100	5.7000e-	5.5000e-	30.0877
Total	3.2E+07	0.1749	1.5903	1.3358	9.5400e-		0.1209	0.1209		0.1209	0.1209	0.0000	1,731.2214	1,731.221	0.0332	0.0317	1,741.509

5.3 Energy by Land Use - Electricity Unmitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	646672	102.3706	9.6800e-	1.1700e-	102.9622
Office Park	1.96E+07	3,094.9932	0.2927	0.0355	3,112.880
Regional	1.28E+06	202.1453	0.0191	2.3200e-	203.3136
Total	2.1E+07	3,399.5091	0.3214	0.0390	3,419.156

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.7879	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	9.0000e-	0.0000	0.0346
Unmitigated	7.7879	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	9.0000e-	0.0000	0.0346

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.9171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	6.8692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6400e-	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	9.0000e-	0.0000	0.0346
Total	7.7879	1.6000e-	0.0170	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	9.0000e-	0.0000	0.0346

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	436.8679	9.4589	0.2265	740.8460
Unmitigated	436.8679	9.4589	0.2265	740.8460

7.2 Water by Land Use
Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.37378 / 0.374864	4.1680	0.1102	2.6300e-003	7.7078
Office Park	276.883 / 169.702	419.0402	9.0535	0.2168	709.9940
Regional Shopping Center	9.02574 / 5.5319	13.6598	0.2951	7.0700e-003	23.1442
Total		436.8679	9.4589	0.2265	740.8460

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	334.8458	19.7888	0.0000	829.5662
Unmitigated	334.8458	19.7888	0.0000	829.5662

8.2 Waste by Land Use
Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	72.82	14.7818	0.8736	0.0000	36.6213
Office Park	1448.8	294.0933	17.3804	0.0000	728.6037
Regional	127.94	25.9707	1.5348	0.0000	64.3412
Total		334.8458	19.7888	0.0000	829.5662

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
Emergency Generator	3	1	12	760	0.73	diesel

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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10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551
Total	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551

11.0 Vegetation

Specific Plan - Existing (2017) - San Mateo County, Summer

Specific Plan - Existing (2017)
San Mateo County, Summer**1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	1,557.85	1000sqft	81.70	1,557,847.00	0
Hotel	133.00	Room	4.10	79,152.00	0
Regional Shopping Center	121.85	1000sqft	6.40	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	349	CH4 Intensity	0.033	N2O Intensity	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing hours

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	879,423.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	2,638,268.00	0.00
tblEnergyUse	LightingElect	3.82	3.13
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	LightingElect	5.88	4.88
tblEnergyUse	T24E	2.95	2.19
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24E	2.90	2.24
tblEnergyUse	T24NG	31.80	29.38
tblEnergyUse	T24NG	21.48	17.44
tblEnergyUse	T24NG	4.68	3.90
tblLandUse	LandUseSquareFeet	1,557,850.00	1,557,847.00
tblLandUse	LandUseSquareFeet	193,116.00	79,152.00
tblLandUse	LotAcreage	35.76	81.70
tblLandUse	LotAcreage	4.43	4.10
tblLandUse	LotAcreage	2.80	6.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	288.00	0.00
tblTripsAndVMT	WorkerTripNumber	571.00	0.00
tblTripsAndVMT	WorkerTripNumber	114.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.6829	1.79E-03	0.1886	1.00E-05		6.80E-04	6.80E-04		6.80E-04	6.80E-04		0.3967	0.3967	1.1000e-		0.4243
Energy	0.9585	8.7139	7.3197	0.0523		0.6623	0.6623		0.6623	0.6623		10,456.68	10,456.684	0.2004	0.1917	10,518.82
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0.0000	0.0000		0.0000
Stationary	3.7411	16.7323	9.5404	0.018		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801
Total	47.3825	25.4480	17.0486	0.0703	0.0000	1.2134	1.2134	0.0000	1.2134	1.2134		12,371.17	12,371.173	0.4699	0.1917	12,440.04

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.9585	8.7139	7.3197	0.0523		0.6623	0.6623		0.6623	0.6623		10,456.68	10,456.684	0.2004	0.1917	10,518.82
NaturalGas	0.9585	8.7139	7.3197	0.0523		0.6623	0.6623		0.6623	0.6623		10,456.68	10,456.684	0.2004	0.1917	10,518.82

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7917.37	0.0854	0.7762	0.6520	4.6600e-		0.0590	0.0590		0.0590	0.0590		931.4551	931.4551	0.0179	0.0171	936.9903
Office Park	79428.9	0.8566	7.7871	6.5412	0.0467		0.5918	0.5918		0.5918	0.5918		9,344.5714	9,344.571	0.1791	0.1713	9,400.101
Regional	1535.59	0.0166	0.1506	0.1265	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.6581	180.6581	3.4600e-	3.3100e-	181.7316
Total		0.9585	8.7139	7.3197	0.0523		0.6623	0.6623		0.6623	0.6623		10,456.684	10,456.68	0.2004	0.1917	10,518.82

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	42.6829	1.7900e-	0.1886	1.0000e-		6.8000e-	6.8000e-		6.8000e-	6.8000e-		0.3967	0.3967	1.1000e-		0.4243
Unmitigated	42.6829	1.7900e-	0.1886	1.0000e-		6.8000e-	6.8000e-		6.8000e-	6.8000e-		0.3967	0.3967	1.1000e-		0.4243

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	5.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	37.6393					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0182	1.7900e-	0.1886	1.0000e-		6.8000e-	6.8000e-		6.8000e-	6.8000e-		0.3967	0.3967	1.1000e-		0.4243
Total	42.6829	1.7900e-	0.1886	1.0000e-		6.8000e-	6.8000e-		6.8000e-	6.8000e-		0.3967	0.3967	1.1000e-		0.4243

7.0 Water Detail

7.1 Mitigation Measures Water

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
Emergency Generator	3	1	12	760	0.73	diesel

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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10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	3.7411	16.7323	9.5404	0.0180		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801
Total	3.7411	16.7323	9.5404	0.0180		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801

11.0 Vegetation

Specific Plan - No Project (2040) - San Mateo County, Annual

Specific Plan - No Project (2040) San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	1,557.85	1000sqft	81.70	1,557,847.00	0
Hotel	133.00	Room	4.10	79,152.00	0
Regional Shopping Center	121.85	1000sqft	6.40	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing

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tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	LightingElect	5.88	4.88
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tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24E	2.90	2.24
tblEnergyUse	T24NG	31.80	29.38
tblEnergyUse	T24NG	21.48	17.44
tblEnergyUse	T24NG	4.68	3.90
tblLandUse	LandUseSquareFeet	1,557,850.00	1,557,847.00
tblLandUse	LandUseSquareFeet	193,116.00	79,152.00
tblLandUse	LandUseSquareFeet	121,850.00	121,846.00
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tblLandUse	LotAcreage	4.43	4.10
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07

tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	288.00	0.00
tblTripsAndVMT	WorkerTripNumber	571.00	0.00
tblTripsAndVMT	WorkerTripNumber	114.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	7.7878	1.5000e-	0.0166	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0	0.0324	0.0324	8.00E-05	0	0.0345
Energy	0.1749	1.5900	1.3356	9.5400e-		0.1208	0.1208		0.1208	0.1208	0	1,945.26	1,945.26	0.0722	0.0415	1,959.42
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0	0	0	0	0	0
Stationary	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0	10.4186	10.4186	1.46E-03	0	10.4551
Waste						0.0000	0.0000		0.0000	0.0000	334.8458	0	334.8458	19.7888	0	829.5662
Water						0.0000	0.0000		0.0000	0.0000	91.7758	21.7537	113.5295	9.4302	0.2236	415.9067
Total	7.9852	1.6906	1.4094	9.6500e-	0.0000	0.1242	0.1242	0.0000	0.1242	0.1242	426.6216	1,977.461	2,404.0830	29.2927	0.2650	3,215.382

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	214.3381	214.3381	0.0390	9.7400e-	218.2156

Consumer	6.8692					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5100e-	1.5000e-	0.0166	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	8.0000e-	0.0000	0.0345
Total	7.7878	1.5000e-	0.0166	0.0000		6.0000e-	6.0000e-		6.0000e-	6.0000e-	0.0000	0.0324	0.0324	8.0000e-	0.0000	0.0345

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	113.5295	9.4302	0.2236	415.9067
Unmitigated	113.5295	9.4302	0.2236	415.9067

7.2 Water by Land Use

Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.37378 / 0.374864	1.2656	0.1100	2.6000e-003	4.7911
Office Park	276.883 / 169.702	108.7199	9.0260	0.2140	398.1373
Regional Shopping Center	9.02574 / 5.5319	3.5440	0.2942	6.9800e-003	12.9784
Total		113.5295	9.4302	0.2236	415.9067

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	334.8458	19.7888	0.0000	829.5662
Unmitigated	334.8458	19.7888	0.0000	829.5662

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Hotel	72.82	14.7818	0.8736	0.0000	36.6213
Office Park	1448.8	294.0933	17.3804	0.0000	728.6037
Regional	127.94	25.9707	1.5348	0.0000	64.3412
Total		334.8458	19.7888	0.0000	829.5662

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
Emergency Generator	3	1	12	760	0.73	diesel

Boilers

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

User Defined Equipment

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551
Total	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551

11.0 Vegetation

Specific Plan - No Project (2040) - San Mateo County, Summer

Specific Plan - No Project (2040) San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	1,557.85	1000sqft	81.70	1,557,847.00	0
Hotel	133.00	Room	4.10	79,152.00	0
Regional Shopping Center	121.85	1000sqft	6.40	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing hours

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tblEnergyUse	T24E	2.90	2.24
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tblLandUse	LotAcreage	4.43	4.10
tblLandUse	LotAcreage	2.80	6.40
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07

tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	288.00	0.00
tblTripsAndVMT	WorkerTripNumber	571.00	0.00
tblTripsAndVMT	WorkerTripNumber	114.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.6815	1.65E-03	0.1839	1.00E-05		6.50E-04	6.50E-04		6.50E-04	6.50E-04		0.3967	0.3967	1.0200e-		0.4223
Energy	0.9584	8.7124	7.3184	0.0523		0.6621	0.6621		0.6621	0.6621		10,454.85	10,454.856	0.2004	0.1917	10,516.98
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0.0000	0.0000		0.0000
Stationary	3.7411	16.7323	9.5404	0.018		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801
Total	47.3810	25.4464	17.0427	0.0703	0.0000	1.2132	1.2132	0.0000	1.2132	1.2132		12,369.34	12,369.344	0.4698	0.1917	12,438.20

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.9584	8.7124	7.3184	0.0523		0.6621	0.6621		0.6621	0.6621		10,454.85	10,454.856	0.2004	0.1917	10,516.98
NaturalGas	0.9584	8.7124	7.3184	0.0523		0.6621	0.6621		0.6621	0.6621		10,454.85	10,454.856	0.2004	0.1917	10,516.98

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7917.58	0.0854	0.7762	0.6520	4.6600e-		0.0590	0.0590		0.0590	0.0590		931.4795	931.4795	0.0179	0.0171	937.0149
Office Park	79414.5	0.8564	7.7857	6.5400	0.0467		0.5917	0.5917		0.5917	0.5917		9,342.8786	9,342.878	0.1791	0.1713	9,398.398
Regional	1534.23	0.0166	0.1504	0.1264	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.4979	180.4979	3.4600e-	3.3100e-	181.5705
Total		0.9584	8.7124	7.3184	0.0523		0.6621	0.6621		0.6621	0.6621		10,454.856	10,454.85	0.2004	0.1917	10,516.98

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	42.6815	1.6500e-	0.1839	1.0000e-		6.5000e-	6.5000e-		6.5000e-	6.5000e-		0.3967	0.3967	1.0200e-		0.4223
Unmitigated	42.6815	1.6500e-	0.1839	1.0000e-		6.5000e-	6.5000e-		6.5000e-	6.5000e-		0.3967	0.3967	1.0200e-		0.4223

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	5.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	37.6393					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0168	1.6500e-	0.1839	1.0000e-		6.5000e-	6.5000e-		6.5000e-	6.5000e-		0.3967	0.3967	1.0200e-		0.4223
Total	42.6815	1.6500e-	0.1839	1.0000e-		6.5000e-	6.5000e-		6.5000e-	6.5000e-		0.3967	0.3967	1.0200e-		0.4223

7.0 Water Detail

7.1 Mitigation Measures Water

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
Emergency Generator	3	1	12	760	0.73	diesel

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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10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	3.7411	16.7323	9.5404	0.0180		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801
Total	3.7411	16.7323	9.5404	0.0180		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801

11.0 Vegetation

Specific Plan - With Project (2040) - San Mateo County, Annual

Specific Plan - With Project (2040)
San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4,017.69	1000sqft	87.80	4,017,694.00	0
Hotel	133.00	Room	1.70	79,152.00	0
Regional Shopping Center	121.85	1000sqft	2.70	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing
Area Mitigation -
Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	2,109,346.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	6,328,038.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	PhaseEndDate	12/28/2023	7/27/2023
tblConstructionPhase	PhaseEndDate	2/23/2023	3/16/2017
tblConstructionPhase	PhaseEndDate	5/19/2016	12/31/2015
tblConstructionPhase	PhaseEndDate	3/16/2017	8/11/2016
tblConstructionPhase	PhaseEndDate	7/27/2023	2/23/2023
tblConstructionPhase	PhaseEndDate	8/11/2016	5/19/2016
tblLandUse	LandUseSquareFeet	4,017,690.00	4,017,694.00
tblLandUse	LandUseSquareFeet	193,116.00	79,152.00
tblLandUse	LandUseSquareFeet	121,850.00	121,846.00
tblLandUse	LotAcreage	92.23	87.80
tblLandUse	LotAcreage	4.43	1.70
tblLandUse	LotAcreage	2.80	2.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	5.00
tblTripsAndVMT	VendorTripNumber	691.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,358.00	0.00
tblTripsAndVMT	WorkerTripNumber	272.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	18.6795	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813
Energy	0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,696.455	4,696.4558	0.1750	0.1003	4,730.710
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
Stationary	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.4300e-	0.0000	17.4252
Waste						0.0000	0.0000		0.0000	0.0000	799.2181	0.0000	799.2181	47.2324	0.0000	1,980.028
Water						0.0000	0.0000		0.0000	0.0000	230.4782	54.7197	285.1978	23.6823	0.5614	1,044.564
Total	19.1386	4.0020	3.3552	0.0232	0.0000	0.2971	0.2971	0.0000	0.2971	0.2971	1,029.696	4,768.616	5,798.3124	71.0923	0.6617	7,772.809

Mitigated Operational

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

Area	17.4476	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.00E-04	0	0.0813
Energy	0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,696.455	4,696.46	0.175	0.1003	4,730.71
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	0	0	0
Stationary	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.43E-03	0	17.4252
Waste						0.0000	0.0000		0.0000	0.0000	799.2181	0.0000	799.2181	47.2324	0	1,980.03
Water						0.0000	0.0000		0.0000	0.0000	184.3825	46.8742	231.2567	18.9464	0.4493	838.8058
Total	17.9068	4.0020	3.3552	0.0232	0.0000	0.2971	0.2971	0.0000	0.2971	0.2971	983.6006	4,760.770	5,744.3713	66.3564	0.5496	7,567.051

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	6.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.48	0.16	0.93	6.66	16.95	2.65

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	522.3592	522.3592	0.0950	0.0237	531.8092
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	522.3592	522.3592	0.0950	0.0237	531.8092
NaturalGas	0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,174.096	4,174.0966	0.0800	0.0765	4,198.901
NaturalGas	0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,174.096	4,174.0966	0.0800	0.0765	4,198.901

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.88984e+	0.0156	0.1417	0.1190	8.5000e-		0.0108	0.0108		0.0108	0.0108	0.0000	154.2128	154.2128	2.9600e-	2.8300e-	155.1293
Office Park	7.47693e+	0.4032	3.6652	3.0787	0.0220		0.2786	0.2786		0.2786	0.2786	0.0000	3,989.9738	3,989.973	0.0765	0.0732	4,013.684
Regional	560492	3.0200e-	0.0275	0.0231	1.6000e-		2.0900e-	2.0900e-		2.0900e-	2.0900e-	0.0000	29.9100	29.9100	5.7000e-	5.5000e-	30.0877
Total		0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,174.0966	4,174.096	0.0800	0.0765	4,198.901

Mitigated

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

Hotel	2.89E+06	0.0156	0.1417	0.1190	8.5000e-		0.0108	0.0108		0.0108	0.0108	0.0000	154.2128	154.2128	2.9600e-	2.8300e-	155.1293
Office Park	7.48E+07	0.4032	3.6652	3.0787	0.0220		0.2786	0.2786		0.2786	0.2786	0.0000	3,989.9738	3,989.973	0.0765	0.0732	4,013.684
Regional	560492	3.0200e-	0.0275	0.0231	1.6000e-		2.0900e-	2.0900e-		2.0900e-	2.0900e-	0.0000	29.9100	29.9100	5.7000e-	5.5000e-	30.0877
Total	78219632	0.4218	3.8343	3.2208	0.0230		0.2914	0.2914		0.2914	0.2914	0.0000	4,174.0966	4,174.096	0.0800	0.0765	4,198.901

5.3 Energy by Land Use - Electricity Unmitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	646672	6.4532	1.1700e-003	2.9000e-004	6.5699
Office Park	5.04221e+007	503.1634	0.0915	0.0229	512.2660
Regional Shopping Center	1.27695e+006	12.7427	2.3200e-003	5.8000e-004	12.9732
Total		522.3592	0.0950	0.0237	531.8092

Mitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	646672	6.4532	1.1700e-	2.9000e-	6.5699
Office Park	5.04E+07	503.1634	0.0915	0.0229	512.2660
Regional	1.28E+06	12.7427	2.3200e-	5.8000e-	12.9732
Total	52345722	522.3592	0.0950	0.0237	531.8092

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	17.4476	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813

Unmitigated	18.6795	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813
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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	2.1998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	16.4761					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5700e-	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813
Total	18.6795	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	2.1998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	15.2442					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.5700e-	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813
Total	17.4476	3.5000e-	0.0390	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0763	0.0763	2.0000e-	0.0000	0.0813

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	231.2567	18.9464	0.4493	838.8058
Unmitigated	285.1978	23.6823	0.5614	1,044.5641

7.2 Water by Land Use

Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.37378 / 0.374864	1.2656	0.1100	2.6000e-003	4.7911
Office Park	714.079 / 437.661	280.3882	23.2781	0.5519	1,026.7947

Regional Shopping Center	9.02574 / 5.5319	3.5440	0.2942	6.9800e-003	12.9784
Total		285.1978	23.6823	0.5614	1,044.564

Mitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	2.69902 / 0.374864	1.0151	0.0880	2.0800e-003	3.8355
Office Park	571.263 / 437.661	227.3678	18.6230	0.4416	824.5483
Regional Shopping Center	7.22059 / 5.5319	2.8739	0.2354	5.5800e-003	10.4220
Total		231.2567	18.9464	0.4493	838.8058

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	799.2181	47.2324	0.0000	1,980.0289
Unmitigated	799.2181	47.2324	0.0000	1,980.0289

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	72.82	14.7818	0.8736	0.0000	36.6213
Office Park	3736.45	758.4656	44.8240	0.0000	1,879.066
Regional	127.94	25.9707	1.5348	0.0000	64.3412
Total		799.2180	47.2324	0.0000	1,980.028

Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	72.82	14.7818	0.8736	0.0000	36.6213
Office Park	3736.45	758.4656	44.8240	0.0000	1,879.066

Regional	127.94	25.9707	1.5348	0.0000	64.3412
Total		799.2180	47.2324	0.0000	1,980.028

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
Emergency Generator	5	1	12	760	0.73	diesel

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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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.4300e-	0.0000	17.4252
Total	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.4300e-	0.0000	17.4252

11.0 Vegetation

Specific Plan - With Project (2040) - San Mateo County, Summer

Specific Plan - With Project (2040) San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4,017.69	1000sqft	87.80	4,017,694.00	0
Hotel	133.00	Room	1.70	79,152.00	0
Regional Shopping Center	121.85	1000sqft	2.70	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings so historical data can apply

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data; assumed hp, testing hours

Area Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	2,109,346.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	6,328,038.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	PhaseEndDate	12/28/2023	7/27/2023
tblConstructionPhase	PhaseEndDate	2/23/2023	3/16/2017
tblConstructionPhase	PhaseEndDate	5/19/2016	12/31/2015
tblConstructionPhase	PhaseEndDate	3/16/2017	8/11/2016
tblConstructionPhase	PhaseEndDate	7/27/2023	2/23/2023
tblConstructionPhase	PhaseEndDate	8/11/2016	5/19/2016
tblLandUse	LandUseSquareFeet	4,017,690.00	4,017,694.00
tblLandUse	LandUseSquareFeet	193,116.00	79,152.00
tblLandUse	LandUseSquareFeet	121,850.00	121,846.00
tblLandUse	LotAcreage	92.23	87.80
tblLandUse	LotAcreage	4.43	1.70
tblLandUse	LotAcreage	2.80	2.70
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	5.00
tblTripsAndVMT	VendorTripNumber	691.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,358.00	0.00
tblTripsAndVMT	WorkerTripNumber	272.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	102.3733	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953
Energy	2.3111	21.0098	17.6483	0.1261		1.5968	1.5968		1.5968	1.5968		25,211.80	25,211.802	0.4832	0.4622	25,361.62
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
Stationary	6.2352	27.8872	15.9006	0.0300		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335
Total	110.9196	48.9010	33.9823	0.1561	0.0000	2.5156	2.5156	0.0000	2.5156	2.5156		28,402.89	28,402.891	0.9329	0.4622	28,563.95

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
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Category	lb/day										lb/day					
Area	95.6234	3.89E-03	0.4334	3.00E-05		1.54E-03	1.54E-03		1.54E-03	1.54E-03		0.9351	0.9351	2.4100e-		0.9953
Energy	2.3111	21.0098	17.6483	0.1261		1.5968	1.5968		1.5968	1.5968		25,211.80	25,211.802	0.4832	0.4622	25,361.62
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0.0000	0.0000		0.0000
Stationary	6.2352	27.8872	15.9006	0.03		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335
Total	104.1697	48.9010	33.9823	0.1561	0.0000	2.5156	2.5156	0.0000	2.5156	2.5156		28,402.89	28,402.891	0.9329	0.4622	28,563.95

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N20	CO2e
Percent	6.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	2.3111	21.0098	17.6483	0.1261		1.5968	1.5968		1.5968	1.5968		25,211.80	25,211.802	0.4832	0.4622	25,361.62
NaturalGas	2.3111	21.0098	17.6483	0.1261		1.5968	1.5968		1.5968	1.5968		25,211.80	25,211.802	0.4832	0.4622	25,361.62

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7917.37	0.0854	0.7762	0.6520	4.6600e-		0.0590	0.0590		0.0590	0.0590		931.4551	931.4551	0.0179	0.0171	936.9903
Office Park	204847	2.2091	20.0831	16.8698	0.1205		1.5263	1.5263		1.5263	1.5263		24,099.689	24,099.68	0.4619	0.4418	24,242.90
Regional	1535.59	0.0166	0.1506	0.1265	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.6581	180.6581	3.4600e-	3.3100e-	181.7316
Total		2.3111	21.0098	17.6483	0.1261		1.5967	1.5967		1.5967	1.5967		25,211.802	25,211.80	0.4832	0.4622	25,361.62

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	7.91737	0.0854	0.7762	0.6520	4.6600e-		0.0590	0.0590		0.0590	0.0590		931.4551	931.4551	0.0179	0.0171	936.9903
Office Park	204.847	2.2091	20.0831	16.8698	0.1205		1.5263	1.5263		1.5263	1.5263		24,099.689	24,099.68	0.4619	0.4418	24,242.90
Regional	1.53559	0.0166	0.1506	0.1265	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.6581	180.6581	3.4600e-	3.3100e-	181.7316
Total		2.3111	21.0098	17.6483	0.1261		1.5967	1.5967		1.5967	1.5967		25,211.802	25,211.80	0.4832	0.4622	25,361.62

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior
 Use Low VOC Paint - Residential Exterior
 Use Low VOC Paint - Non-Residential Interior
 Use Low VOC Paint - Non-Residential Exterior
 No Hearths Installed
 Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	95.6234	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953
Unmitigated	102.3733	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	12.0536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	90.2800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0397	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953
Total	102.3733	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	12.0536					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	83.5301					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0397	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953
Total	95.6234	3.8900e-	0.4334	3.0000e-		1.5400e-	1.5400e-		1.5400e-	1.5400e-		0.9351	0.9351	2.4100e-		0.9953

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet
Install Low Flow Kitchen Faucet
Install Low Flow Toilet
Install Low Flow Shower

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
Emergency Generator	5	1	12	760	0.73	diesel

Boilers

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

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

10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	6.2352	27.8872	15.9006	0.0300		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335
Total	6.2352	27.8872	15.9006	0.0300		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335

11.0 Vegetation

Specific Plan - With Project (2040) - Height (Office) - San Mateo County, Annual

Specific Plan - With Project (2040) - Height (Office)
San Mateo County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4,017.69	1000sqft	87.20	4,017,694.00	0
Hotel	186.00	Room	2.40	110,813.00	0
Regional Shopping Center	121.85	1000sqft	2.60	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf; assumed 1,100 sf per DU

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Trips and VMT - operational analysis only

Grading - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Area Coating -

Energy Use - existing buildings so historical data can apply

Area Mitigation -

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data and phase 1 generator;

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	2,125,177.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	6,375,530.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	PhaseEndDate	3/13/2020	10/27/2019
tblConstructionPhase	PhaseEndDate	6/5/2020	3/13/2020
tblConstructionPhase	PhaseEndDate	1/8/2021	6/5/2020
tblConstructionPhase	PhaseEndDate	12/18/2026	1/8/2021
tblConstructionPhase	PhaseEndDate	5/21/2027	12/18/2026
tblConstructionPhase	PhaseEndDate	10/22/2027	5/21/2027
tblLandUse	LandUseSquareFeet	4,017,690.00	4,017,694.00
tblLandUse	LandUseSquareFeet	270,072.00	110,813.00
tblLandUse	LandUseSquareFeet	121,850.00	121,846.00
tblLandUse	LotAcreage	92.23	87.20
tblLandUse	LotAcreage	6.20	2.40
tblLandUse	LotAcreage	2.80	2.60
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	5.00
tblTripsAndVMT	VendorTripNumber	697.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,371.00	0.00
tblTripsAndVMT	WorkerTripNumber	274.00	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	11.42	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

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	18.8197	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.00E-04	0	0.0823
Energy	0.4280	3.8910	3.2684	0.0234		0.2957	0.2957		0.2957	0.2957	0.0000	4,760.722	4,760.72	0.1766	0.1015	4,795.39
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	0	0	0
Stationary	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.43E-03	0	17.4252
Waste						0.0000	0.0000		0.0000	0.0000	805.1068	0.0000	805.1068	47.5805	0	1,994.62
Water						0.0000	0.0000		0.0000	0.0000	230.9047	54.7975	285.7022	23.7261	0.5625	1,046.47
Total	19.2851	4.0586	3.4033	0.0235	0.0000	0.3014	0.3014	0.0000	0.3014	0.3014	1,036.011	4,832.961	5,868.9732	71.4858	0.6640	7,853.989

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	17.5786	3.5000e-004	0.0395	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	0.0773	0.0773	2.00E-04	0	0.0823
Energy	0.4280	3.8910	3.2684	0.0234		0.2957	0.2957		0.2957	0.2957	0.0000	4,760.722	4,760.72	0.1766	0.1015	4,795.39
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	0	0	0
Stationary	0.0374	0.1673	0.0954	1.8000e-004		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	17.3644	17.3644	2.43E-03	0	17.4252
Waste						0.0000	0.0000		0.0000	0.0000	805.1068	0.0000	805.1068	47.5805	0	1,994.62
Water						0.0000	0.0000		0.0000	0.0000	184.7237	46.9375	231.6612	18.9814	0.4501	840.3343
Total	18.0440	4.0586	3.4033	0.0235	0.0000	0.3014	0.3014	0.0000	0.3014	0.3014	989.8306	4,825.101	5,814.9323	66.7411	0.5516	7,647.850

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	6.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.46	0.16	0.92	6.64	16.92	2.62

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						0.0000	0.0000		0.0000	0.0000	0.0000	524.9405	524.9405	0.0954	0.0239	534.4371
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	524.9405	524.9405	0.0954	0.0239	534.4371
NaturalGas	0.4280	3.8910	3.2684	0.0234		0.2957	0.2957		0.2957	0.2957	0.0000	4,235.782	4,235.7821	0.0812	0.0777	4,260.953
NaturalGas	0.4280	3.8910	3.2684	0.0234		0.2957	0.2957		0.2957	0.2957	0.0000	4,235.782	4,235.7821	0.0812	0.0777	4,260.953

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGa	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					
Hotel	4.05E+06	0.0218	0.1983	0.1666	1.1900e-004		0.0151	0.0151		0.0151	0.0151	0.0000	215.8984	215.8984	4.1400e-003	3.9600e-003	217.1813
Office Park	7.48E+07	0.4032	3.6652	3.0787	0.0220		0.2786	0.2786		0.2786	0.2786	0.0000	3,989.9738	3,989.973	0.0765	0.0732	4,013.684
Regional	560492	3.0200e-004	0.0275	0.0231	1.6000e-004		2.0900e-004	2.0900e-004		2.0900e-004	2.0900e-004	0.0000	29.9100	29.9100	5.7000e-003	5.5000e-003	30.0877
Total		0.4280	3.8910	3.2684	0.0233		0.2957	0.2957		0.2957	0.2957	0.0000	4,235.7821	4,235.782	0.0812	0.0777	4,260.953

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	4.04578e+	0.0218	0.1983	0.1666	1.1900e-		0.0151	0.0151		0.0151	0.0151	0.0000	215.8984	215.8984	4.1400e-	3.9600e-	217.1813
Office Park	7.47693e+	0.4032	3.6652	3.0787	0.0220		0.2786	0.2786		0.2786	0.2786	0.0000	3,989.9738	3,989.973	0.0765	0.0732	4,013.684
Regional	560492	3.0200e-	0.0275	0.0231	1.6000e-		2.0900e-	2.0900e-		2.0900e-	2.0900e-	0.0000	29.9100	29.9100	5.7000e-	5.5000e-	30.0877
Total		0.4280	3.8910	3.2684	0.0233		0.2957	0.2957		0.2957	0.2957	0.0000	4,235.7821	4,235.782	0.0812	0.0777	4,260.953

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	905342	9.0344	1.6400e-	4.1000e-	9.1979
Office Park	5.04221e+	503.1634	0.0915	0.0229	512.2660
Regional	1.27695e+	12.7427	2.3200e-	5.8000e-	12.9732
Total		524.9405	0.0954	0.0239	534.4371

Mitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	905342	9.0344	1.6400e-	4.1000e-	9.1979
Office Park	5.04E+07	503.1634	0.0915	0.0229	512.2660
Regional	1.28E+06	12.7427	2.3200e-	5.8000e-	12.9732
Total		524.9405	0.0954	0.0239	534.4371

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

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

Mitigated	17.5786	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823
Unmitigated	18.8197	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	2.2163					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	16.5998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6100e-	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823
Total	18.8197	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	2.2163					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	15.3587					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.6100e-	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823
Total	17.5786	3.5000e-	0.0395	0.0000		1.4000e-	1.4000e-		1.4000e-	1.4000e-	0.0000	0.0773	0.0773	2.0000e-	0.0000	0.0823

7.0 Water Detail

7.1 Mitigation Measures Water

- Install Low Flow Bathroom Faucet
- Install Low Flow Kitchen Faucet
- Install Low Flow Toilet
- Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	231.6612	18.9814	0.4501	840.3343
Unmitigated	285.7022	23.7261	0.5625	1,046.4734

7.2 Water by Land Use
Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	4.71822 / 2.55000	1.7700	0.1538	3.6400e-	6.7003

Office Park	714.079 /	280.3882	23.2781	0.5519	1,026.794
Regional	9.02574 /	3.5440	0.2942	6.9800e-	12.9784
Total		285.7022	23.7261	0.5625	1,046.473

Mitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	3.77458 /	1.4196	0.1230	2.9100e-	5.3640
Office Park	571.263 /	227.3678	18.6230	0.4416	824.5483
Regional	7.22059 /	2.8739	0.2354	5.5800e-	10.4220
Total		231.6612	18.9814	0.4501	840.3343

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	805.1068	47.5805	0.0000	1,994.6181
Unmitigated	805.1068	47.5805	0.0000	1,994.6181

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	101.83	20.6706	1.2216	0.0000	51.2105
Office Park	3736.45	758.4656	44.8240	0.0000	1,879.066
Regional	127.94	25.9707	1.5348	0.0000	64.3412
Total		805.1068	47.5805	0.0000	1,994.618

Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	101.83	20.6706	1.2216	0.0000	51.2105
Office Park	3736.45	758.4656	44.8240	0.0000	1,879.066
Regional	127.94	25.9707	1.5348	0.0000	64.3412

Total		805.1068	47.5805	0.0000	1,994.618
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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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0.0374	0.1673	0.0954	1.8000e-	5.5000e-	5.5000e-		5.5000e-	5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.4300e-	0.0000	17.4252
Total	0.0374	0.1673	0.0954	1.8000e-		5.5000e-	5.5000e-		5.5000e-	5.5000e-	0.0000	17.3644	17.3644	2.4300e-	0.0000	17.4252

11.0 Vegetation

Specific Plan - With Project (2040) - Height (Office) - San Mateo County, Summer

Specific Plan - With Project (2040) - Height (Office)
San Mateo County, Summer

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	4,017.69	1000sqft	87.20	4,017,694.00	0
Hotel	186.00	Room	2.40	110,813.00	0
Regional Shopping Center	121.85	1000sqft	2.60	121,846.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2040
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	22	CH4 Intensity	0.004	N2O Intensity	0.001

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EFs adjusted per SB 100

Land Use - sf, rooms, and acreage per pd; acreage scaled per sf; assumed 1,100 sf per DU

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Trips and VMT - operational analysis only

Grading - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Area Coating -

Energy Use - existing buildings so historical data can apply

Area Mitigation -

Water Mitigation -

Stationary Sources - Emergency Generators and Fire Pumps - existing generators per BAAQMD 2017 permitted sources data and phase 1 generator;

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	2,125,177.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	6,375,530.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	1,550.00	0.00
tblConstructionPhase	NumDays	100.00	0.00
tblConstructionPhase	NumDays	155.00	0.00
tblConstructionPhase	NumDays	110.00	0.00
tblConstructionPhase	NumDays	60.00	0.00
tblLandUse	LandUseSquareFeet	4,017,690.00	4,017,694.00
tblLandUse	LandUseSquareFeet	270,072.00	110,813.00
tblLandUse	LandUseSquareFeet	121,850.00	121,846.00
tblLandUse	LotAcreage	92.23	87.20
tblLandUse	LotAcreage	6.20	2.40
tblLandUse	LotAcreage	2.80	2.60
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.004
tblProjectCharacteristics	CO2IntensityFactor	641.35	22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.001

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	2.3452	21.3203	17.9091	0.1279		1.6203	1.6203		1.6203	1.6203		25,584.38	25,584.386	0.4904	0.4691	25,736.42
NaturalGas	2.3452	21.3203	17.9091	0.1279		1.6203	1.6203		1.6203	1.6203		25,584.38	25,584.386	0.4904	0.4691	25,736.42

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	11084.3	0.1195	1.0867	0.9128	6.5200e-		0.0826	0.0826		0.0826	0.0826		1,304.0395	1,304.039	0.0250	0.0239	1,311.788
Office Park	204847	2.2091	20.0831	16.8698	0.1205		1.5263	1.5263		1.5263	1.5263		24,099.689	24,099.68	0.4619	0.4418	24,242.90
Regional	1535.59	0.0166	0.1506	0.1265	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.6581	180.6581	3.4600e-	3.3100e-	181.7316
Total		2.3452	21.3203	17.9091	0.1279		1.6203	1.6203		1.6203	1.6203		25,584.386	25,584.38	0.4904	0.4691	25,736.42

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	11.0843	0.1195	1.0867	0.9128	6.5200e-		0.0826	0.0826		0.0826	0.0826		1,304.0395	1,304.039	0.0250	0.0239	1,311.788
Office Park	204.847	2.2091	20.0831	16.8698	0.1205		1.5263	1.5263		1.5263	1.5263		24,099.689	24,099.68	0.4619	0.4418	24,242.90
Regional	1.53559	0.0166	0.1506	0.1265	9.0000e-		0.0114	0.0114		0.0114	0.0114		180.6581	180.6581	3.4600e-	3.3100e-	181.7316
Total		2.3452	21.3203	17.9091	0.1279		1.6203	1.6203		1.6203	1.6203		25,584.386	25,584.38	0.4904	0.4691	25,736.42

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed
Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	96.3412	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076
Unmitigated	103.1418	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	12.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	90.9576					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0402	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076
Total	103.1418	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	12.1441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	84.1570					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0402	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076
Total	96.3412	3.9400e-	0.4388	3.0000e-		1.5600e-	1.5600e-		1.5600e-	1.5600e-		0.9467	0.9467	2.4400e-		1.0076

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet
Install Low Flow Kitchen Faucet
Install Low Flow Toilet
Install Low Flow Shower

10.0 Stationary Equipment

10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	6.2361	27.8872	15.9006	0.0300		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335
Total	6.2361	27.8872	15.9006	0.0300		0.9173	0.9173		0.9173	0.9173		3,190.153	3,190.1537	0.4473		3,201.335

11.0 Vegetation

Phase I Development - Existing (2017) - San Mateo County, Annual

Phase I Development - Existing (2017) San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	335.24	1000sqft	8.15	335,241.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	349	CH4 Intensity	0.033	N2O Intensity	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100
 Land Use - office sf and site acreage per project description
 Construction Phase - operational analysis only
 Off-road Equipment - operational analysis only
 Off-road Equipment - operational analysis only
 Off-road Equipment - operational analysis only
 Off-road Equipment - operational analysis only
 Off-road Equipment - operational analysis only
 Off-road Equipment - operational analysis only
 Grading - operational analysis only
 Trips and VMT - operational analysis only
 Architectural Coating - operational analysis only
 Vehicle Trips - operational analysis only - mobile source emissions modeled separately
 Energy Use - existing buildings, historical data is applicable

Stationary Sources - Emergency Generators and Fire Pumps - generator per BAAQMD 2017 permitted sources; assumed testing once a month for 1 hour

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,621.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,862.00	0.00
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24NG	21.48	17.44
tblLandUse	LotAcreage	7.70	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	55.00	0.00
tblTripsAndVMT	WorkerTripNumber	107.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00

tblVehicleTrips	WD_TR	11.42	0.00
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2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.99E-03	2.00E-05	0	6.41E-03
Energy	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	998.9553	998.9553	0.0694	0.0137	1,004.78
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	0	0	0
Stationary	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.90E-04	0	3.485
Waste						0.0000	0.0000		0.0000	0.0000	63.2865	0.0000	63.2865	3.7401	0	156.7896
Water						0.0000	0.0000		0.0000	0.0000	18.9031	71.2719	90.175	1.9483	0.0467	152.7865
Total	1.5255	0.3393	0.2791	1.8700e-	0.0000	0.0244	0.0244	0.0000	0.0244	0.0244	82.1896	1,073.706	1,155.8956	5.7583	0.0604	1,317.850

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-
Energy	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	998.9553	998.9553	0.0694	0.0137	1,004.782
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
Stationary	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850
Waste						0.0000	0.0000		0.0000	0.0000	63.2865	0.0000	63.2865	3.7401	0.0000	156.7896
Water						0.0000	0.0000		0.0000	0.0000	18.9031	71.2719	90.1750	1.9483	0.0467	152.7865
Total	1.5255	0.3393	0.2791	1.8700e-	0.0000	0.0244	0.0244	0.0000	0.0244	0.0244	82.1896	1,073.706	1,155.8956	5.7583	0.0604	1,317.850

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

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

Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	666.0273	666.0273	0.0630	7.6300e-	669.8765
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	666.0273	666.0273	0.0630	7.6300e-	669.8765
NaturalGas	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064
NaturalGas	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	6.24E+06	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064
Total		0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	6.23884e+	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064
Total		0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Office Park	4.21E+06	666.0273	0.0630	7.6300e-	669.8765
Total		666.0273	0.0630	7.6300e-	669.8765

Mitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Office Park	4.20727e+	666.0273	0.0630	7.6300e-	669.8765
Total		666.0273	0.0630	7.6300e-	669.8765

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-
Unmitigated	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.1748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	1.3093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-
Total	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.1748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	1.3093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-
Total	1.4844	3.0000e-	3.1400e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.4100e-

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	90.1750	1.9483	0.0467	152.7865
Unmitigated	90.1750	1.9483	0.0467	152.7865

7.2 Water by Land Use

Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Office Park	59.5835 / 36.5189	90.1750	1.9483	0.0467	152.7865
Total		90.1750	1.9483	0.0467	152.7865

Mitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Office Park	59.5835 / 36.5189	90.1750	1.9483	0.0467	152.7865
Total		90.1750	1.9483	0.0467	152.7865

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	63.2865	3.7401	0.0000	156.7896
Unmitigated	63.2865	3.7401	0.0000	156.7896

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	311.77	63.2865	3.7401	0.0000	156.7896
Total		63.2865	3.7401	0.0000	156.7896

Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	311.77	63.2865	3.7401	0.0000	156.7896
Total		63.2865	3.7401	0.0000	156.7896

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

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850
Total	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850

11.0 Vegetation

Phase I Development - Existing (2017) - San Mateo County, Summer

Phase I Development - Existing (2017)

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	335.24	1000sqft	8.15	335,241.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	70
Climate Zone	5			Operational Year	2017
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	349	CH4 Intensity	0.033	N2O Intensity	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100

Land Use - office sf and site acreage per project description

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Grading - operational analysis only

Trips and VMT - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings, historical data is applicable

Stationary Sources - Emergency Generators and Fire Pumps - generator per BAAQMD 2017 permitted sources; assumed testing once a month for 1 hour

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,621.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,862.00	0.00
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24NG	21.48	17.44
tblLandUse	LotAcreage	7.70	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.033
tblProjectCharacteristics	CO2IntensityFactor	641.35	349
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	55.00	0.00
tblTripsAndVMT	WorkerTripNumber	107.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1354	3.30E-04	0.0349	0		1.30E-04	1.30E-04		1.30E-04	1.30E-04		0.0734	0.0734	2.00E-04		0.0785
Energy	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.91	0.0385	0.0369	2,022.86
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0	0		0
Stationary	1.247	5.5775	3.1801	5.99E-03		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.267
Total	9.5667	7.2535	4.6226	0.0160	0.0000	0.3110	0.3110	0.0000	0.3110	0.3110		2,649.009	2,649.01	0.1282	0.0369	2,663.20

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1354	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785
Energy	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855
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
Stationary	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670
Total	9.5667	7.2535	4.6226	0.0160	0.0000	0.3110	0.3110	0.0000	0.3110	0.3110		2,649.009	2,649.0098	0.1282	0.0369	2,663.201

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855
NaturalGas	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Office Park	17092.7	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855
Total		0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Office Park	17.0927	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855
Total		0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1354	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785
Unmitigated	8.1354	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0.9579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	7.1742					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.3700e-	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785
Total	8.1354	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0.9579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	7.1742					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.3700e-	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785
Total	8.1354	3.3000e-	0.0349	0.0000		1.3000e-	1.3000e-		1.3000e-	1.3000e-		0.0734	0.0734	2.0000e-		0.0785

7.0 Water Detail

7.1 Mitigation Measures Water

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

10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670
Total	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670

11.0 Vegetation

Phase I Development - 2022 - No Project - San Mateo County, Annual

Phase I Development - 2022 - No Project San Mateo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	335.24	1000sqft	8.15	335,241.00	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 & Electric Company

CO2 Intensity	245	CH4 Intensity	0.026	N2O Intensity	0.003
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1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100

Land Use - office sf and site acreage per project description

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Trips and VMT - operational analysis only

Grading - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use - existing buildings, historical data is applicable

Stationary Sources - Emergency Generators and Fire Pumps - generator per BAAQMD 2017 permitted sources; assumed testing once a month for 1 hour

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,621.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,862.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24NG	21.48	17.44
tblLandUse	LandUseSquareFeet	335,240.00	335,241.00
tblLandUse	LotAcreage	7.70	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	641.35	245
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	55.00	0.00

tblTripsAndVMT	WorkerTripNumber	107.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.99E-03	2.00E-05	0	6.39E-03
Energy	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	800.4830	800.483	0.056	0.0118	805.4079
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	0	0	0
Stationary	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.90E-04	0	3.485
Waste						0.0000	0.0000		0.0000	0.0000	63.2865	0.0000	63.2865	3.7401	0	156.7896
Water						0.0000	0.0000		0.0000	0.0000	18.9031	50.0333	68.9363	1.9468	0.0465	131.4513
Total	1.5255	0.3393	0.2791	1.8700e-	0.0000	0.0244	0.0244	0.0000	0.0244	0.0244	82.1896	853.9951	936.1847	5.7435	0.0583	1,097.140

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-
Energy	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	800.4830	800.4830	0.0560	0.0118	805.4079
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
Stationary	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850
Waste						0.0000	0.0000		0.0000	0.0000	63.2865	0.0000	63.2865	3.7401	0.0000	156.7896
Water						0.0000	0.0000		0.0000	0.0000	18.9031	50.0333	68.9363	1.9468	0.0465	131.4513
Total	1.5255	0.3393	0.2791	1.8700e-	0.0000	0.0244	0.0244	0.0000	0.0244	0.0244	82.1896	853.9951	936.1847	5.7435	0.0583	1,097.140

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	467.5550	467.5550	0.0496	5.7300e-	470.5015
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	467.5550	467.5550	0.0496	5.7300e-	470.5015
NaturalGas	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064
NaturalGas	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	6.24E+06	0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064
Total		0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	6.23884e+006	0.0336	0.3058	0.2569	1.8300e-003		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-003	6.1000e-003	334.9064
Total		0.0336	0.3058	0.2569	1.8300e-		0.0232	0.0232		0.0232	0.0232	0.0000	332.9280	332.9280	6.3800e-	6.1000e-	334.9064

5.3 Energy by Land Use - Electricity
Unmitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Office Park	4.21E+06	467.5550	0.0496	5.7300e-	470.5015
Total		467.5550	0.0496	5.7300e-	470.5015

Mitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Office Park	4.21E+06	467.5550	0.0496	5.7300e-003	470.5015
Total		467.5550	0.0496	5.7300e-	470.5015

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-
Unmitigated	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.1748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	1.3093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-
Total	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.1748					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	1.3093					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.9000e-	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-
Total	1.4844	3.0000e-	3.0900e-	0.0000		1.0000e-	1.0000e-		1.0000e-	1.0000e-	0.0000	5.9900e-	5.9900e-	2.0000e-	0.0000	6.3900e-

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	68.9363	1.9468	0.0465	131.4513
Unmitigated	68.9363	1.9468	0.0465	131.4513

7.2 Water by Land Use

Unmitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			

Office Park	59.5835 / 36.5189	68.9363	1.9468	0.0465	131.4513
Total		68.9363	1.9468	0.0465	131.4513

Mitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Office Park	59.5835 / 36.5189	68.9363	1.9468	0.0465	131.4513
Total		68.9363	1.9468	0.0465	131.4513

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	63.2865	3.7401	0.0000	156.7896
Unmitigated	63.2865	3.7401	0.0000	156.7896

8.2 Waste by Land Use

Unmitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	311.77	63.2865	3.7401	0.0000	156.7896
Total		63.2865	3.7401	0.0000	156.7896

Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	311.77	63.2865	3.7401	0.0000	156.7896
Total		63.2865	3.7401	0.0000	156.7896

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

10.1 Stationary Sources Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850
Total	7.4800e-	0.0335	0.0191	4.0000e-		1.1000e-	1.1000e-		1.1000e-	1.1000e-	0.0000	3.4729	3.4729	4.9000e-	0.0000	3.4850

11.0 Vegetation

Phase I Development - 2022 - No Project - San Mateo County, Summer

Phase I Development - 2022 - No Project San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	335.24	1000sqft	8.15	335,241.00	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 & Electric Company				
CO2 Intensity	245	CH4 Intensity	0.026	N2O Intensity	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100
Land Use - office sf and site acreage per project description
Construction Phase - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Trips and VMT - operational analysis only
Grading - operational analysis only
Architectural Coating - operational analysis only
Vehicle Trips - operational analysis only - mobile source emissions modeled separately
Energy Use - existing buildings, historical data is applicable

Stationary Sources - Emergency Generators and Fire Pumps - generator per BAAQMD 2017 permitted sources; assumed testing once a month for 1 hour

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	167,621.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	502,862.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblEnergyUse	LightingElect	4.21	3.47
tblEnergyUse	T24E	5.65	4.27
tblEnergyUse	T24NG	21.48	17.44
tblLandUse	LandUseSquareFeet	335,240.00	335,241.00
tblLandUse	LotAcreage	7.70	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	641.35	245
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00

tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	55.00	0.00
tblTripsAndVMT	WorkerTripNumber	107.00	0.00
tblTripsAndVMT	WorkerTripNumber	21.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1352	3.10E-04	0.0343	0		1.20E-04	1.20E-04		1.20E-04	1.20E-04		0.0734	0.0734	1.9000e-		0.0782
Energy	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0.0000	0.0000		0.0000
Stationary	1.247	5.5775	3.1801	5.99E-03		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670
Total	9.5666	7.2535	4.6220	0.0160	0.0000	0.3110	0.3110	0.0000	0.3110	0.3110		2,649.009	2,649.0098	0.1282	0.0369	2,663.200

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8.1352	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782
Energy	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855
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
Stationary	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670
Total	9.5666	7.2535	4.6220	0.0160	0.0000	0.3110	0.3110	0.0000	0.3110	0.3110		2,649.009	2,649.0098	0.1282	0.0369	2,663.200

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-CO2	Total	CH4	N2O	CO2e
Percent	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855
NaturalGas	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.905	2,010.9057	0.0385	0.0369	2,022.855

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Office Park	17092.7	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855
Total		0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855

Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Office Park	17.0927	0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855
Total		0.1843	1.6758	1.4076	0.0101		0.1274	0.1274		0.1274	0.1274		2,010.9057	2,010.905	0.0385	0.0369	2,022.855

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1352	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782
Unmitigated	8.1352	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782

6.2 Area by SubCategory
Unmitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0.9579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	7.1742					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1900e-	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782
Total	8.1352	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0.9579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	7.1742					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.1900e-	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782
Total	8.1352	3.1000e-	0.0343	0.0000		1.2000e-	1.2000e-		1.2000e-	1.2000e-		0.0734	0.0734	1.9000e-		0.0782

7.0 Water Detail

7.1 Mitigation Measures Water

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

10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670
Total	1.2470	5.5775	3.1801	5.9900e-		0.1835	0.1835		0.1835	0.1835		638.0307	638.0307	0.0895		640.2670

11.0 Vegetation

Phase I Development - With Project (2022) - San Mateo County, Annual

Phase I Development - With Project (2022)
San Mateo County, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	636.72	1000sqft	8.15	636,717.00	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 & Electric Company				
CO2 Intensity	245	CH4 Intensity	0.026	N2O Intensity	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100
Land Use - sf and acreage per PD
Construction Phase - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Off-road Equipment - operational analysis only
Trips and VMT - operational analysis only
Grading - operational analysis only
Architectural Coating - operational analysis only
Vehicle Trips - operational analysis only - mobile source emissions modeled separately
Energy Use -
Area Mitigation - per applicant
Energy Mitigation - per applicant

Water Mitigation - per applicant

Stationary Sources - Emergency Generators and Fire Pumps - 1 generator per applicant, 1 existig generator; assumed 1 hour testing once a month

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	318,359.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	955,076.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	636,720.00	636,717.00
tblLandUse	LotAcreage	14.62	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	641.35	245
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	104.00	0.00

tblTripsAndVMT	WorkerTripNumber	204.00	0.00
tblTripsAndVMT	WorkerTripNumber	41.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

2.2 Overall Operational Unmitigated Operational Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.6333	5.0000e-	5.8600e-	0.0000		2.0000e-	2.0000e-		2.0000e-	2.0000e-	0.0000	0.0114	0.0114	3.00E-05	0	0.0121
Energy	0.0543	0.4938	0.4148	2.9600e-		0.0375	0.0375		0.0375	0.0375	0.0000	1,377.189	1,377.19	0.0994	0.0201	1,385.67
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	0	0	0
Stationary	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.46E-03	0	10.4551
Waste						0.0000	0.0000		0.0000	0.0000	120.2011	0.0000	120.2011	7.1037	0	297.7931
Water						0.0000	0.0000		0.0000	0.0000	26.9269	78.0155	104.9424	2.7739	0.0663	194.0357
Total	2.7101	0.5942	0.4779	3.0700e-	0.0000	0.0409	0.0409	0.0000	0.0409	0.0409	147.1280	1,465.634	1,612.7625	9.9785	0.0864	1,887.970

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	839.6763	839.6763	0.0891	0.0103	844.9680
Electricity						0.0000	0.0000		0.0000	0.0000	0.0000	888.0185	888.0185	0.0942	0.0109	893.6148
NaturalGas	0.0543	0.4938	0.4148	2.9600e-		0.0375	0.0375		0.0375	0.0375	0.0000	537.5127	537.5127	0.0103	9.8500e-	540.7069
NaturalGas	0.0639	0.5809	0.4879	3.4900e-		0.0441	0.0441		0.0441	0.0441	0.0000	632.3240	632.3240	0.0121	0.0116	636.0815

5.2 Energy by Land Use - NaturalGas Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Office Park	1.01E+07	0.0543	0.4938	0.4148	2.9600e-		0.0375	0.0375		0.0375	0.0375	0.0000	537.5127	537.5127	0.0103	9.8500e-	540.7069
Total		0.0543	0.4938	0.4148	2.9600e-		0.0375	0.0375		0.0375	0.0375	0.0000	537.5127	537.5127	0.0103	9.8500e-	540.7069

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Office Park	7.56E+06	839.6763	0.0891	0.0103	844.9680
Total		839.6763	0.0891	0.0103	844.9680

6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.6333	5.0000e-	5.8600e-	0.0000		2.0000e-	2.0000e-		2.0000e-	2.0000e-	0.0000	0.0114	0.0114	3.0000e-	0.0000	0.0121
Unmitigated	2.8193	5.0000e-	5.8600e-	0.0000		2.0000e-	2.0000e-		2.0000e-	2.0000e-	0.0000	0.0114	0.0114	3.0000e-	0.0000	0.0121

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0.3320					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer	2.3008					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.5000e-	5.0000e-	5.8600e-	0.0000		2.0000e-	2.0000e-		2.0000e-	2.0000e-	0.0000	0.0114	0.0114	3.0000e-	0.0000	0.0121
Total	2.6333	5.0000e-005	5.8600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0114	0.0114	3.0000e-005	0.0000	0.0121

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	104.9424	2.7739	0.0663	194.0357
Unmitigated	130.9305	3.6976	0.0882	249.6649

7.2 Water by Land Use

Mitigated

	Indoor/Out	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Office Park	84.875 / 69.3602	104.9424	2.7739	0.0663	194.0357
Total		104.9424	2.7739	0.0663	194.0357

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	120.2011	7.1037	0.0000	297.7931
Unmitigated	120.2011	7.1037	0.0000	297.7931

8.2 Waste by Land Use

Mitigated

	Waste	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Office Park	592.15	120.2011	7.1037	0.0000	297.7931
Total		120.2011	7.1037	0.0000	297.7931

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
Emergency Generator	3	1	12	760	0.73	Diesel

Boilers

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

User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources
Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551
Total	0.0225	0.1004	0.0572	1.1000e-		3.3000e-	3.3000e-		3.3000e-	3.3000e-	0.0000	10.4186	10.4186	1.4600e-	0.0000	10.4551

11.0 Vegetation

Phase I Development - With Project (2022) - San Mateo County, Summer

Phase I Development - With Project (2022)

San Mateo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	636.72	1000sqft	8.15	636,717.00	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 & Electric Company

CO2 Intensity	245	CH4 Intensity	0.026	N2O Intensity	0.003
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1.3 User Entered Comments & Non-Default Data

Project Characteristics - EF adjusted per SB 100

Land Use - sf and acreage per PD

Construction Phase - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Off-road Equipment - operational analysis only

Trips and VMT - operational analysis only

Grading - operational analysis only

Architectural Coating - operational analysis only

Vehicle Trips - operational analysis only - mobile source emissions modeled separately

Energy Use -

Area Mitigation - per applicant

Energy Mitigation - per applicant

Water Mitigation - per applicant

Stationary Sources - Emergency Generators and Fire Pumps - 1 generator per applicant, 1 existig generator; assumed 1 hour testing once a month

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	318,359.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	955,076.00	0.00
tblAreaMitigation	UseLowVOCPaintParkingCheck	False	True
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	230.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LandUseSquareFeet	636,720.00	636,717.00
tblLandUse	LotAcreage	14.62	8.15
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	641.35	245
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	760.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	3.00
tblTripsAndVMT	VendorTripNumber	104.00	0.00

tblTripsAndVMT	WorkerTripNumber	204.00	0.00
tblTripsAndVMT	WorkerTripNumber	41.00	0.00
tblVehicleTrips	ST_TR	1.64	0.00
tblVehicleTrips	SU_TR	0.76	0.00
tblVehicleTrips	WD_TR	11.42	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

2.2 Overall Operational
Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	14.4323	5.90E-04	0.0651	0		2.30E-04	2.30E-04		2.30E-04	2.30E-04		0.1394	0.1394	3.7000e-		0.1485
Energy	0.2976	2.7055	2.2726	0.0162		0.2056	0.2056		0.2056	0.2056		3,246.610	3,246.6102	0.0622	0.0595	3,265.903
Mobile	0	0	0	0	0	0	0	0	0	0		0.0000	0.0000	0.0000		0.0000
Stationary	3.7411	16.7323	9.5404	0.018		0.5504	0.5504		0.5504	0.5504		1,914.092	1,914.0922	0.2684		1,920.801
Total	18.4710	19.4384	11.8781	0.0342	0.0000	0.7563	0.7563	0.0000	0.7563	0.7563		5,160.841	5,160.8418	0.3310	0.0595	5,186.852

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas	0.2976	2.7055	2.2726	0.0162		0.2056	0.2056		0.2056	0.2056		3,246.610	3,246.6102	0.0622	0.0595	3,265.903
NaturalGas	0.3501	3.1827	2.6735	0.0191		0.2419	0.2419		0.2419	0.2419		3,819.275	3,819.2759	0.0732	0.0700	3,841.971

5.2 Energy by Land Use - NaturalGas
Mitigated

	NaturalGa	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Office Park	27.5962	0.2976	2.7055	2.2726	0.0162		0.2056	0.2056		0.2056	0.2056		3,246.6102	3,246.6102	0.0622	0.0595	3,265.9032

Total		0.2976	2.7055	2.2726	0.0162		0.2056	0.2056		0.2056	0.2056		3,246.6102	3,246.610	0.0622	0.0595	3,265.903
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6.0 Area Detail

6.1 Mitigation Measures Area

- Use Low VOC Paint - Residential Interior
- Use Low VOC Paint - Residential Exterior
- Use Low VOC Paint - Non-Residential Interior
- Use Low VOC Paint - Non-Residential Exterior
- No Hearths Installed
- Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.4323	5.9000e-	0.0651	0.0000		2.3000e-	2.3000e-		2.3000e-	2.3000e-		0.1394	0.1394	3.7000e-		0.1485
Unmitigated	15.4510	5.9000e-	0.0651	0.0000		2.3000e-	2.3000e-		2.3000e-	2.3000e-		0.1394	0.1394	3.7000e-		0.1485

Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	1.8192					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer	12.6070					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0600e-	5.9000e-	0.0651	0.0000		2.3000e-	2.3000e-		2.3000e-	2.3000e-		0.1394	0.1394	3.7000e-		0.1485
Total	14.4323	5.9000e-	0.0651	0.0000		2.3000e-	2.3000e-		2.3000e-	2.3000e-		0.1394	0.1394	3.7000e-		0.1485

7.0 Water Detail

7.1 Mitigation Measures Water

- Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Unmitigated

Condition	Pounds per Day					Metric Tons per Year				Gallons per year	
	ROG	NOx	CO	PM10	PM2.5	CO2	CH4	N2O	CO2e	Gasoline	Diesel
Existing	23	61	322	188	32	13,583	2	1	13,982	1,295,519	124,011
2022 No Project	15	32	190	197	33	11,920	1	1	12,212	1,112,042	135,376
2022 With Phase I	31	53	311	313	52	19,311	3	2	19,882	1,769,551	214,838
2040 No Project	9	18	127	206	34	8,760	1	1	8,953	791,581	128,055
2040 With Specific Plan	32	65	454	739	121	31,409	2	2	32,099	2,837,104	458,726
2040 With Alternative	32	65	455	740	121	31,469	2	2	32,160	2,843,539	459,785

Mitigated

Condition	Pounds per Day					Metric Tons per Year				Gallons per year	
	ROG	NOx	CO	PM10	PM2.5	CO2	CH4	N2O	CO2e	Gasoline	Diesel
Existing	23	61	322	188	32	13,583	2	1	13,982	1,295,519	124,011
2022 No Project	15	32	190	197	33	11,920	1	1	12,212	1,112,042	135,376
2022 With Phase I	29	44	263	254	42	16,048	3	2	16,582	1,433,896	174,079
2040 No Project	9	18	127	206	34	8,760	1	1	8,953	791,581	128,055
2040 With Specific Plan	30	57	403	643	105	27,660	2	2	28,303	2,468,288	399,093
2040 With Alternative	30	57	404	644	105	27,712	2	2	28,355	2,473,888	400,014

Daily VMT

	2013	2022		2040		
Speed	Existing (2017)	2022 No Project	2022 With Phase I	Build Out No Project (2040)	Build Out - Specific Plan (2040)	Build Out - Height Alternative (2040)
0-5	172	172	295	173	603	591
5-10	63	79	92	111	454	512
10-15	469	576	667	790	2,638	2,621
15-20	7,477	7,653	11,596	8,005	26,877	27,253
20-25	6,606	6,592	10,265	6,564	24,531	24,346
25-30	8,214	8,368	13,078	8,676	30,696	31,044
30-35	5,691	6,886	8,867	9,277	32,970	33,104
35-40	3,262	4,680	5,699	7,517	25,734	25,193
40-45	10,073	9,381	15,190	7,998	31,251	31,171
45-50	8,016	7,792	13,603	7,345	20,327	21,223
50-55	11,062	11,612	16,181	12,711	47,739	47,204
55-60	22,076	20,667	34,919	17,850	67,348	67,637
60-65	13,809	11,594	22,301	7,165	26,473	26,386
65+	172	156	285	123	608	611
Total Daily	97,163	96,210	153,039	94,305	338,248	338,898

Source: Chan (2019)

2022 With Project VMT presents VMT from the Existing + Phase I condition. F&P has indicated this is a conservative analysis of 2022 With Phase I.

Annual VMT

Speed	Existing (2017)	2022 No Project	2022 With Phase I	Build Out No Project (2040)	Build Out - Specific Plan (2040)	Build Out - Height Alternative (2040)
0-5	59,684	59,800	102,365	60,031	209,241	205,077
5-10	21,861	27,413	31,924	38,517	157,538	177,664
10-15	162,743	199,872	231,449	274,130	915,386	909,487
15-20	2,594,519	2,655,591	4,023,812	2,777,735	9,326,319	9,456,791
20-25	2,292,282	2,287,424	3,561,955	2,277,708	8,512,257	8,448,062
25-30	2,850,258	2,903,696	4,538,066	3,010,572	10,651,512	10,772,268
30-35	1,974,777	2,389,558	3,076,849	3,219,119	11,440,590	11,487,088
35-40	1,131,914	1,624,076	1,977,553	2,608,399	8,929,698	8,741,971
40-45	3,495,331	3,255,323	5,270,930	2,775,306	10,844,097	10,816,337
45-50	2,781,552	2,703,940	4,720,241	2,548,715	7,053,469	7,364,381
50-55	3,838,514	4,029,248	5,614,807	4,410,717	16,565,433	16,379,788
55-60	7,660,372	7,171,565	12,116,893	6,193,950	23,369,756	23,470,039
60-65	4,791,723	4,023,234	7,738,447	2,486,255	9,186,131	9,155,942
65+	59,684	54,016	98,895	42,681	210,976	212,017
Total Annual	33,715,214	33,384,754	53,104,186	32,723,835	117,372,403	117,596,912

Condition	Daily VMT
Existing	97,163
Existing + Phase I	153,039
Build Out	94,305
Build Out + Specific P	338,248
Build Out - Height Alt	338,898
Phase I Comparision to Existing Conditions	55,876
Speciifc Plan Comparison to Existing Conditions	241,085
Alternative Comparison to Existing Conditions	244,593

Mitigated Daily VMT

Speed	Existing (2017)	2022 No Project	2022 With Phase I	Build Out No Project (2040)	Build Out - Specific Plan (2040)	Build Out - Height Alternative (2040)
0-5	172	172	231	173	525	514
5-10	63	79	77	111	395	446
10-15	469	576	564	790	2,295	2,281
15-20	7,477	7,653	9,454	8,005	23,383	23,710
20-25	6,606	6,592	8,362	6,564	21,342	21,181
25-30	8,214	8,368	10,549	8,676	26,705	27,008
30-35	5,691	6,886	7,216	9,277	28,684	28,800
35-40	3,262	4,680	4,432	7,517	22,389	21,918
40-45	10,073	9,381	12,529	7,998	27,188	27,119
45-50	8,016	7,792	10,698	7,345	17,685	18,464
50-55	11,062	11,612	13,519	12,711	41,533	41,068
55-60	22,076	20,667	28,240	17,850	58,593	58,844
60-65	13,809	11,594	17,885	7,165	23,031	22,956
65+	172	156	226	123	529	531
Total Daily	97,163	96,210	123,984	94,305	294,276	294,841

Source: Chan (2019)

Mitigated Annual VMT

Speed	Existing (2017)	2022 No Project	2022 With Phase I	Build Out No Project (2040)	Build Out - Specific Plan (2040)	Build Out - Height Alternative (2040)
0-5	59,684	59,800	80,157	60,031	182,175	178,358
5-10	21,861	27,413	26,719	38,517	137,065	154,762
10-15	162,743	199,872	195,708	274,130	796,365	791,507
15-20	2,594,519	2,655,591	3,280,538	2,777,735	8,113,901	8,227,370
20-25	2,292,282	2,287,424	2,901,614	2,277,708	7,405,674	7,349,807
25-30	2,850,258	2,903,696	3,660,503	3,010,572	9,266,635	9,371,776
30-35	1,974,777	2,389,558	2,503,952	3,219,119	9,953,348	9,993,600
35-40	1,131,914	1,624,076	1,537,904	2,608,399	7,768,983	7,605,546
40-45	3,495,331	3,255,323	4,347,563	2,775,306	9,434,236	9,410,293
45-50	2,781,552	2,703,940	3,712,206	2,548,715	6,136,695	6,407,008
50-55	3,838,514	4,029,248	4,691,093	4,410,717	14,411,951	14,250,596
55-60	7,660,372	7,171,565	9,799,280	6,193,950	20,331,771	20,418,868
60-65	4,791,723	4,023,234	6,206,095	2,486,255	7,991,757	7,965,732
65+	59,684	54,016	78,422	42,681	183,563	184,257
Total Annual	33,715,214	33,384,754	43,021,754	32,723,835	102,114,119	102,309,480

Condition	Daily VMT
Existing	97,163
2022 With Phase I	123,984
Build Out	94,305
Build Out + Specific P	294,276
Build Out - Height Alt	294,841

Phase I Comparison to Existing Conditions

26,821

Specific Plan Comparison to Existing Conditions

197,113

Alternative Comparison to Existing Conditions

200,536

File Name: San Mateo (SF) - 2017 - Annual.EF
CT-EMFAC2017 Ver 1.0.2.27401
Run Date: 4/25/2019 8:43
Area: San Mateo (SF)
Analysis Year: 2017
Season: Annual

Vehicle Category VMT Fraction Diesel VMT Gas VMT Fraction
Across Category Within Cate Within Category
Truck 1 3% 37% 63%
Truck 2 2% 88% 11%
Non-Truck 95% 1% 98%

Road Type: Local Urban
Silt Loading Fact CARB 0.32 g/m2
Precipitation Corre User-Defined P = 60 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
PM2.5	0.163113	0.15779	0.153231	0.150275	0.148784	0.147901	0.147346	0.147054	0.146988	0.147129	0.147473	0.147799	0.148031	0.148169	0.148169	
PM10	0.895737	0.890023	0.885172	0.882031	0.880441	0.879498	0.878906	0.878593	0.87852	0.878665	0.879026	0.879369	0.879619	0.879767	0.879767	
NOx	0.568341	0.480276	0.382617	0.325474	0.29595	0.275014	0.259665	0.249359	0.243763	0.2427	0.24613	0.253611	0.264762	0.269265	0.269265	
CO	2.631228	2.262088	1.963854	1.737084	1.564823	1.426181	1.312234	1.218866	1.143724	1.085913	1.046056	1.026618	1.032692	1.048247	1.048448	
ROG	0.300113	0.201664	0.130662	0.088323	0.06656	0.053199	0.044495	0.039006	0.035919	0.034817	0.035559	0.038119	0.042674	0.045951	0.045971	
CO2	851.772087	695.60024	566.51654	471.94173	404.90361	359.98639	333.75468	322.01181	321.49923	329.52832	342.05085	355.50878	366.99046	370.1865	370.1865	
N2O	0.029485	0.025484	0.02124	0.01868	0.016911	0.015481	0.014572	0.013914	0.013502	0.013332	0.013497	0.013872	0.014468	0.014468	0.014468	
CH4	0.048628	0.034037	0.023877	0.017511	0.013665	0.011146	0.009462	0.008367	0.007715	0.007427	0.00747	0.007867	0.008653	0.009213	0.009214	

Fleet Average Fuel Consumption (gallons/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
Gasoline	0.090333	0.073311	0.060038	0.049925	0.042659	0.037878	0.035101	0.033951	0.034047	0.03502	0.036449	0.037895	0.038981	0.038981	0.038981	
Diesel	0.008609	0.007388	0.005808	0.004969	0.004397	0.003972	0.003689	0.003467	0.00332	0.003281	0.003318	0.003408	0.003569	0.003569	0.003569	

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.002074
PM10 0.008297

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.017247
PM10 0.040242

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.1239
PM10 0.825997

=====END=====

File Name: San Mateo (SF) - 2022 - Annual.EF
CT-EMFAC2017 Ver 1.0.2.27401
Run Date: 4/25/2019 8:43
Area: San Mateo (SF)
Analysis Year: 7/14/1905 0:00
Season: Annual

Vehicle Category VMT Fraction Diesel VMT Gas VMT Fraction
Across Category Within Cate Within Category
Truck 1 0.035 0.472 0.528
Truck 2 3% 87% 11%
Non-Truck 94% 2% 96%

Road Type: Local Urban
Silt Loading Fact CARB 0.32 g/m2
Precipitation Corre User-Defined P = 60 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
PM2.5	0.161645	0.158201	0.15605	0.154728	0.153939	0.153461	0.153179	0.153035	0.152997	0.153051	0.153189	0.153374	0.153604	0.153713	0.153713	
PM10	0.93743	0.933698	0.931373	0.929947	0.929095	0.928578	0.928272	0.928115	0.928072	0.928127	0.928271	0.928468	0.928714	0.928832	0.928832	
NOx	0.368352	0.301616	0.235739	0.198725	0.172801	0.151907	0.135934	0.124565	0.117609	0.114959	0.116574	0.122536	0.132748	0.134787	0.134787	
CO	1.67805	1.434398	1.233317	1.085028	0.976538	0.889983	0.818977	0.760806	0.713957	0.677876	0.652996	0.641162	0.645864	0.656398	0.656912	
ROG	0.19145	0.126274	0.083194	0.057526	0.043257	0.03444	0.0288	0.025295	0.023346	0.022656	0.023128	0.024869	0.028119	0.030465	0.030518	
CO2	765.842388	624.92242	507.2589	423.10514	363.03386	322.33124	298.52786	287.5773	286.73603	293.86847	305.25135	317.7042	328.85508	331.66562	331.66562	
N2O	0.02519	0.021511	0.01746	0.015284	0.013709	0.012419	0.011598	0.01099	0.010613	0.010511	0.010689	0.011048	0.011628	0.011628	0.011628	
CH4	0.034845	0.024657	0.017536	0.013045	0.010224	0.00835	0.007084	0.006247	0.005729	0.005471	0.005446	0.005685	0.006209	0.006578	0.00658	

Fleet Average Fuel Consumption (gallons/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
Gasoline	0.078387	0.063615	0.052089	0.043312	0.037005	0.032856	0.030448	0.029454	0.029541	0.03039	0.031634	0.032884	0.033824	0.033824	0.033824	
Diesel	0.009901	0.008342	0.006442	0.005531	0.004862	0.004332	0.00399	0.003727	0.003561	0.003543	0.003626	0.003777	0.004028	0.004028	0.004028	

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.002085
PM10 0.008339

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.017556
PM10 0.040963

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.131522
PM10 0.876813

=====END=====

File Name: San Mateo (SF) - 2040 - Annual.EF
CT-EMFAC2017 Ver 1.0.2.27401
Run Date: 4/25/2019 8:45
Area: San Mateo (SF)
Analysis Year: 8/1/1905 0:00
Season: Annual

Vehicle Category VMT Fraction Diesel VMT Gas VMT Fraction
Across Category Within Cate Within Category
Truck 1 0.041 0.543 0.457
Truck 2 4% 88% 11%
Non-Truck 92% 2% 93%

Road Type: Local Urban
Silt Loading Fact CARB 0.32 g/m2
Precipitation Corre User-Defined P = 60 days N = 365 days

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pollutant Name	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
PM2.5	0.165108	0.163778	0.162959	0.162455	0.162143	0.16196	0.161861	0.161822	0.16183	0.161879	0.161964	0.162092	0.162265	0.162305	0.162305	
PM10	0.994079	0.992636	0.99175	0.991204	0.990868	0.99067	0.990562	0.990518	0.990525	0.990575	0.990665	0.9908	0.990983	0.991027	0.991027	
NOx	0.342251	0.264681	0.193097	0.156365	0.126777	0.100981	0.080583	0.065437	0.055453	0.050581	0.050795	0.05613	0.066586	0.06724	0.06724	
CO	1.21605	1.021522	0.853887	0.737094	0.659422	0.599651	0.551412	0.51253	0.481863	0.459069	0.4446	0.440213	0.44885	0.459802	0.460755	
ROG	0.149176	0.098189	0.064023	0.04371	0.032671	0.025974	0.021737	0.019137	0.017723	0.017265	0.017693	0.0191	0.021698	0.023599	0.023698	
CO2	585.349125	477.66608	386.10124	322.35859	276.73681	245.52524	227.23255	218.52362	217.51237	222.84643	231.59436	241.33432	250.47685	252.51847	252.51847	
N2O	0.021719	0.018392	0.014632	0.01273	0.011344	0.010208	0.009487	0.008945	0.008615	0.008568	0.008754	0.009093	0.009637	0.009637	0.009637	
CH4	0.028604	0.020818	0.015156	0.011549	0.009231	0.00766	0.006571	0.005823	0.005329	0.00504	0.004932	0.005037	0.005363	0.005582	0.005586	

Fleet Average Fuel Consumption (gallons/veh-mile)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fuel Type	<= 5 mph	10 mph	15 mph	20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50 mph	55 mph	60 mph	65 mph	70 mph	75 mph	
Gasoline	0.057045	0.046293	0.037901	0.031513	0.026924	0.023904	0.022153	0.021431	0.021496	0.022114	0.023021	0.023922	0.024601	0.024601	0.024601	
Diesel	0.009817	0.008198	0.006246	0.005341	0.004673	0.004136	0.003796	0.003535	0.003378	0.003382	0.003489	0.003665	0.003947	0.003947	0.003947	

Fleet Average Tire Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.002101
PM10 0.008402

Fleet Average Brake Wear Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.018056
PM10 0.042131

Fleet Average Road Dust Factors (grams/veh-mile)

Pollutant Name Emission Factor
PM2.5 0.140871
PM10 0.939138

=====END=====

Emission Factor Summary (Process Emissions)

Trips/Day			Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip (EMFAC 2017)									lbs/day						Metric Tons Per Year			
Year	Condition		ROG	NOx	CO	PM10 Ex	PM2.5 Ex	SO2	CO2	CH4	N2O	ROG	NOx	CO	PM10 Ex	PM2.5 Ex	SO2	CO2	CH4	N2O	CO2e
2013	No Project	9,868	0.62	0.21	1.73	0.00	0.00	0.00	40	0.05	0.02	13	5	38	0	0	0	1,366	2	1	1,609
2013	Project	15,246	0.62	0.21	1.73	0.00	0.00	0.00	40	0.05	0.02	21	7	58	0	0	0	2,110	3	1	2,486
2022	No Project	9,791	0.40	0.14	1.37	0.00	0.00	0.00	33	0.03	0.01	9	3	30	0	0	0	1,119	1	0	1,290
2040	No Project	9,636	0.20	0.09	0.87	0.00	0.00	0.00	22	0.01	0.01	4	2	19	0	0	0	734	0	0	829
2040	Project	33,715	0.20	0.09	0.87	0.00	0.00	0.00	22	0.01	0.01	15	7	65	0	0	0	2,568	1	1	2,901
2040	Project - Alt	33,650	0.20	0.09	0.87	0.00	0.00	0.00	22	0.01	0.01	15	7	65	0	0	0	2,563	1	1	2,895

Conversions
347 Days/year
0.00453592 Lbs to MT
0.00220462 Grams to Lbs
25 CH4
298 N2O

Phase I 2040 14900

Emission Factor Summary SO2 (With Mitigated VMT)

Trips/Day			Mitigated VMT	Running (g/mi)	HTSK, RUNL'	lbs/day
Year	Condition			SO2	SO2	SO2
2013	No Project	9,868	97,163	0	0.00	0.4286
2013	Project	15,246	123,984	0	0.00	0.5492
2022	No Project	9,791	96,210	0	0.00	0.3527
2040	No Project	9,636	94,305	0	0.00	0.3434
2040	Project	33,650	294,276	0	0.00	0.7605
2040	Project - Alt	33,715	294,841	0	0.00	0.7620

Conversions

347 Days/year
0.00453592 Lbs to MT
0.00220462 Grams to Lbs
25 CH4
298 N2O

Project-Level Mitigated MEI Cancer and Non-Cancer (HI) during Construction

Receptor	Increased Cancer Risk (per million)	Non-Cancer (HI)
Residential	1.1	0.002
BAAQMD Threshold	10	1
Exceed BAAQMD Threshold?	No	No

										1	2	3	4	5	6	7	8	9	10	11
Period	ID	X	Y	concat	Concentration [ug/m³]	PHASE	Concentration [ug/m³]	Haul1	Concentration [ug/m³]	Haul2	Concentration [ug/m³]	Building	Concentration [ug/m³]	Building						
ANNUAL	R1	550876.81	416433.17	550876.81 416433.17	0.0677	PHASE 1	0.0523	HAUL1	0.0296	HAUL2	0.0305									
ANNUAL	R2	550896.81	416435.17	550896.81 416435.17	0.0615	PHASE 1	0.0574	HAUL1	0.0305	HAUL2	0.0305									
ANNUAL	R3	550876.81	416437.17	550876.81 416437.17	0.0690	PHASE 1	0.0625	HAUL1	0.03564	HAUL2	0.03564									
ANNUAL	R4	550936.81	416437.17	550936.81 416437.17	0.0658	PHASE 1	0.0637	HAUL1	0.03759	HAUL2	0.03759									
ANNUAL	R5	550876.81	416439.17	550876.81 416439.17	0.0764	PHASE 1	0.0691	HAUL1	0.03946	HAUL2	0.03946									
ANNUAL	R6	550916.81	416439.17	550916.81 416439.17	0.0743	PHASE 1	0.0703	HAUL1	0.0409	HAUL2	0.0409									
ANNUAL	R7	550956.81	416439.17	550956.81 416439.17	0.0735	PHASE 1	0.0715	HAUL1	0.04188	HAUL2	0.04188									
ANNUAL	R8	550996.81	416439.17	550996.81 416439.17	0.0713	PHASE 1	0.0710	HAUL1	0.04238	HAUL2	0.04238									
ANNUAL	R9	551036.81	416439.17	551036.81 416439.17	0.0710	PHASE 1	0.0709	HAUL1	0.04247	HAUL2	0.04247									
ANNUAL	R10	550896.81	416441.17	550896.81 416441.17	0.0842	PHASE 1	0.0779	HAUL1	0.04475	HAUL2	0.04475									
ANNUAL	R11	550936.81	416441.17	550936.81 416441.17	0.0822	PHASE 1	0.0791	HAUL1	0.04585	HAUL2	0.04585									
ANNUAL	R12	550976.81	416441.17	550976.81 416441.17	0.0806	PHASE 1	0.0795	HAUL1	0.04635	HAUL2	0.04635									
ANNUAL	R13	551016.81	416441.17	551016.81 416441.17	0.0798	PHASE 1	0.0794	HAUL1	0.04631	HAUL2	0.04631									
ANNUAL	R14	551056.81	416441.17	551056.81 416441.17	0.0798	PHASE 1	0.0791	HAUL1	0.04586	HAUL2	0.04586									
ANNUAL	R15	550876.81	416443.17	550876.81 416443.17	0.0958	PHASE 1	0.0866	HAUL1	0.0493	HAUL2	0.0493									
ANNUAL	R16	550916.81	416443.17	550916.81 416443.17	0.0939	PHASE 1	0.0887	HAUL1	0.05056	HAUL2	0.05056									
ANNUAL	R17	550956.81	416443.17	550956.81 416443.17	0.0919	PHASE 1	0.0896	HAUL1	0.05101	HAUL2	0.05101									
ANNUAL	R18	550996.81	416443.17	550996.81 416443.17	0.0905	PHASE 1	0.0890	HAUL1	0.0508	HAUL2	0.0508									
ANNUAL	R19	551036.81	416443.17	551036.81 416443.17	0.0899	PHASE 1	0.0892	HAUL1	0.05009	HAUL2	0.05009									
ANNUAL	R20	551076.81	416443.17	551076.81 416443.17	0.0901	PHASE 1	0.0884	HAUL1	0.04903	HAUL2	0.04903									
ANNUAL	R21	551116.81	416443.17	551116.81 416443.17	0.0905	PHASE 1	0.0873	HAUL1	0.04773	HAUL2	0.04773									
ANNUAL	R22	550896.81	416445.17	550896.81 416445.17	0.1077	PHASE 1	0.1001	HAUL1	0.05621	HAUL2	0.05621									
ANNUAL	R23	550936.81	416445.17	550936.81 416445.17	0.1096	PHASE 1	0.1056	HAUL1	0.05657	HAUL2	0.05657									
ANNUAL	R24	550976.81	416445.17	550976.81 416445.17	0.1036	PHASE 1	0.1021	HAUL1	0.05609	HAUL2	0.05609									
ANNUAL	R25	551016.81	416445.17	551016.81 416445.17	0.1023	PHASE 1	0.1016	HAUL1	0.05502	HAUL2	0.05502									
ANNUAL	R26	551056.81	416445.17	551056.81 416445.17	0.1038	PHASE 1	0.1005	HAUL1	0.05356	HAUL2	0.05356									
ANNUAL	R27	551096.81	416445.17	551096.81 416445.17	0.1017	PHASE 1	0.0999	HAUL1	0.05186	HAUL2	0.05186									
ANNUAL	R28	551136.81	416445.17	551136.81 416445.17	0.1016	PHASE 1	0.0986	HAUL1	0.05006	HAUL2	0.05006									
ANNUAL	R29	550876.81	416447.17	550876.81 416447.17	0.1241	PHASE 1	0.1241	HAUL1	0.06313	HAUL2	0.06313									
ANNUAL	R30	550936.81	416447.17	550936.81 416447.17	0.1211	PHASE 1	0.1174	HAUL1	0.06297	HAUL2	0.06297									
ANNUAL	R31	550976.81	416447.17	550976.81 416447.17	0.1186	PHASE 1	0.1174	HAUL1	0.06168	HAUL2	0.06168									
ANNUAL	R32	551036.81	416447.17	551036.81 416447.17	0.1161	PHASE 1	0.1154	HAUL1	0.05882	HAUL2	0.05882									
ANNUAL	R33	551076.81	416447.17	551076.81 416447.17	0.1153	PHASE 1	0.1132	HAUL1	0.0566	HAUL2	0.0566									
ANNUAL	R34	551116.81	416447.17	551116.81 416447.17	0.1185	PHASE 1	0.1103	HAUL1	0.0543	HAUL2	0.0543									
ANNUAL	R35	551156.81	416447.17	551156.81 416447.17	0.1134	PHASE 1	0.1064	HAUL1	0.05201	HAUL2	0.05201									
ANNUAL	R36	550916.81	416449.17	550916.81 416449.17	0.1414	PHASE 1	0.1364	HAUL1	0.07101	HAUL2	0.07101									
ANNUAL	R37	550976.81	416449.17	550976.81 416449.17	0.1367	PHASE 1	0.1364	HAUL1	0.06773	HAUL2	0.06773									
ANNUAL	R38	551016.81	416449.17	551016.81 416449.17	0.1340	PHASE 1	0.1342	HAUL1	0.06497	HAUL2	0.06497									
ANNUAL	R39	551096.81	416449.17	551096.81 416449.17	0.1302	PHASE 1	0.1271	HAUL1	0.05913	HAUL2	0.05913									
ANNUAL	R40	551136.81	416449.17	551136.81 416449.17	0.1281	PHASE 1	0.1281	HAUL1	0.05629	HAUL2	0.05629									
ANNUAL	R41	550876.81	416455.17	550876.81 416455.17	0.0626	PHASE 1	0.0570	HAUL1	0.03239	HAUL2	0.03239									
ANNUAL	R42	550936.81	416455.17	550936.81 416455.17	0.0594	PHASE 1	0.0578	HAUL1	0.03423	HAUL2	0.03423									
ANNUAL	R43	550896.81	416437.17	550896.81 416437.17	0.0678	PHASE 1	0.0630	HAUL1	0.03636	HAUL2	0.03636									
ANNUAL	R44	550956.81	416437.17	550956.81 416437.17	0.0650	PHASE 1	0.0638	HAUL1	0.03808	HAUL2	0.03808									
ANNUAL	R45	550896.81	416439.17	550896.81 416439.17	0.0753	PHASE 1	0.0698	HAUL1	0.04023	HAUL2	0.04023									
ANNUAL	R46	550936.81	416439.17	550936.81 416439.17	0.0733	PHASE 1	0.0707	HAUL1	0.04145	HAUL2	0.04145									
ANNUAL	R47	550976.81	416439.17	550976.81 416439.17	0.0718	PHASE 1	0.0710	HAUL1	0.04219	HAUL2	0.04219									
ANNUAL	R48	551016.81	416439.17	551016.81 416439.17	0.0711	PHASE 1	0.0710	HAUL1	0.04247	HAUL2	0.04247									
ANNUAL	R49	550876.81	416441.17	550876.81 416441.17	0.0853	PHASE 1	0.0770	HAUL1	0.04396	HAUL2	0.04396									
ANNUAL	R50	550916.81	416441.17	550916.81 416441.17	0.0832	PHASE 1	0.0786	HAUL1	0.04538	HAUL2	0.04538									
ANNUAL	R51	550956.81	416441.17	550956.81 416441.17	0.0813	PHASE 1	0.0794	HAUL1	0.04513	HAUL2	0.04513									
ANNUAL	R52	550996.81	416441.17	550996.81 416441.17	0.0801	PHASE 1	0.0795	HAUL1	0.04639	HAUL2	0.04639									
ANNUAL	R53	551036.81	416441.17	551036.81 416441.17	0.0797	PHASE 1	0.0793	HAUL1	0.04613	HAUL2	0.04613									
ANNUAL	R54	551076.81	416441.17	551076.81 416441.17	0.0801	PHASE 1	0.0788	HAUL1	0.04551	HAUL2	0.04551									
ANNUAL	R55	550896.81	416443.17	550896.81 416443.17	0.0949	PHASE 1	0.0878	HAUL1	0.05003	HAUL2	0.05003									
ANNUAL	R56	550936.81	416443.17	550936.81 416443.17	0.0928	PHASE 1	0.0893	HAUL1	0.05088	HAUL2	0.05088									
ANNUAL	R57	550976.81	416443.17	550976.81 416443.17	0.0911	PHASE 1	0.0897	HAUL1	0.05009	HAUL2	0.05009									
ANNUAL	R58	551016.81	416443.17	551016.81 416443.17	0.0901	PHASE 1	0.0895	HAUL1	0.0505	HAUL2	0.0505									
ANNUAL	R59	551056.81	416443.17	551056.81 416443.17	0.0899	PHASE 1	0.0889	HAUL1	0.0496	HAUL2	0.0496									
ANNUAL	R60	551096.81	416443.17	551096.81 416443.17	0.0903	PHASE 1	0.0879	HAUL1	0.0484	HAUL2	0.0484									
ANNUAL	R61	550876.81	416445.17	550876.81 416445.17	0.1085	PHASE 1	0.0985	HAUL1	0.05563	HAUL2	0.05563									
ANNUAL	R62	550916.81	416445.17	550916.81 416445.17	0.1067	PHASE 1	0.1067	HAUL1	0.05651	HAUL2	0.05651									
ANNUAL	R63	550956.81	416445.17	550956.81 416445.17	0.1045	PHASE 1	0.1022	HAUL1	0.05642	HAUL2	0.05642									
ANNUAL	R64	550996.81	416445.17	550996.81 416445.17	0.1028	PHASE 1	0.1019	HAUL1	0.05562	HAUL2	0.05562									
ANNUAL	R65	551036.81	416445.17	551036.81 416445.17	0.1019	PHASE 1	0.1011	HAUL1	0.05433	HAUL2	0.05433									
ANNUAL	R66	551076.81	416445.17	551076.81 416445.17	0.1017	PHASE 1	0.0998	HAUL1	0.05274	HAUL2	0.05274									
ANNUAL	R67	551116.81	416445.17	551116.81 416445.17	0.1017	PHASE 1	0.0999	HAUL1	0.05097	HAUL2	0.05097									
ANNUAL	R68	551156.81	416445.17	551156.81 416445.17	0.1051	PHASE 1	0.0951	HAUL1	0.04913	HAUL2	0.04913									
ANNUAL	R69	550916.81	416447.17	550916.81 416447.17	0.1223	PHASE 1	0.1168	HAUL1	0.06331	HAUL2	0.06331									
ANNUAL	R70	550956.81	416447.17	550956.81 416447.17	0.1198	PHASE 1	0.1177	HAUL1	0.06242	HAUL2	0.06242									
ANNUAL	R71	550996.81	416447.17	550996.81 416447.17	0.1176	PHASE 1	0.1169	HAUL1	0.06082	HAUL2	0.06082									
ANNUAL	R72	551056.81	416447.17	551056.81 416447.17	0.1157	PHASE 1	0.1144	HAUL1	0.05773	HAUL2	0.05773									
ANNUAL	R73	551096.81	416447.17	551096.81 416447.17	0.1149	PHASE 1	0.1149	HAUL1	0.05545	HAUL2	0.05545									
ANNUAL	R74	551136.81	416447.17	551136.81 416447.17	0.1140	PHASE 1	0.1085	HAUL1	0.05319	HAUL2	0.05319									
ANNUAL	R75	551176.81	416447.17	551176.81 416447.17	0.1125	PHASE 1	0.1041	HAUL1	0.05087	HAUL2	0.05087									
ANNUAL	R76	550956.81	416449.17	550956.81 416449.17	0.1383	PHASE 1	0.1370	HAUL1	0.06898	HAUL2	0.06898									
ANNUAL	R77	550996.81	416449.17	550996.81 416449.17	0.1353	PHASE 1	0.1354	HAUL1	0.06638	HAUL2	0.06638									
ANNUAL	R78	551076.81	416449.17	551076.81 416449.17	0.1311	PHASE 1	0.1292	HAUL1	0.06059	HAUL2	0.06059									
ANNUAL	R79	551116.81	416449.17	551116.81 416449.17	0.1291	PHASE 1	0.129													

ANNUAL	R138	551236.81	4164551.7	551236.814164551.7	0.1563	PHASE 1	0.1423	HAUL1	0.05587	HAUL2
ANNUAL	R139	551076.81	4164571.7	551076.814164571.7	0.2261	PHASE 1	0.2304	HAUL1	0.0768	HAUL2
ANNUAL	R140	551116.81	4164571.7	551116.814164571.7	0.2103	PHASE 1	0.2124	HAUL1	0.2207	HAUL2
ANNUAL	R141	551176.81	4164571.7	551176.814164571.7	0.1915	PHASE 1	0.1826	HAUL1	0.06395	HAUL2
ANNUAL	R142	551216.81	4164571.7	551216.814164571.7	0.1773	PHASE 1	0.1650	HAUL1	0.05974	HAUL2
ANNUAL	R143	551276.81	4164571.7	551276.814164571.7	0.1570	PHASE 1	0.1416	HAUL1	0.05421	HAUL2
ANNUAL	R144	551176.81	4164591.7	551176.814164591.7	0.2121	PHASE 1	0.2043	HAUL1	0.06632	HAUL2
ANNUAL	R145	551216.81	4164591.7	551216.814164591.7	0.1937	PHASE 1	0.1825	HAUL1	0.06172	HAUL2
ANNUAL	R146	551256.81	4164591.7	551256.814164591.7	0.1761	PHASE 1	0.1761	HAUL1	0.05792	HAUL2
ANNUAL	R147	551156.81	4164611.7	551156.814164611.7	0.2464	PHASE 1	0.2434	HAUL1	0.07124	HAUL2
ANNUAL	R148	551196.81	4164611.7	551196.814164611.7	0.2222	PHASE 1	0.2146	HAUL1	0.06597	HAUL2
ANNUAL	R149	551256.81	4164611.7	551256.814164611.7	0.1899	PHASE 1	0.1787	HAUL1	0.05918	HAUL2
ANNUAL	R150	551176.81	4164631.7	551176.814164631.7	0.2574	PHASE 1	0.2550	HAUL1	0.07057	HAUL2
ANNUAL	R151	551236.81	4164631.7	551236.814164631.7	0.2035	PHASE 1	0.2154	HAUL1	0.06286	HAUL2
ANNUAL	R152	551276.81	4164631.7	551276.814164631.7	0.1921	PHASE 1	0.1839	HAUL1	0.05848	HAUL2
ANNUAL	R153	551276.81	4164651.7	551276.814164651.7	0.2035	PHASE 1	0.2006	HAUL1	0.05966	HAUL2
ANNUAL	R154	550384.79	4164911.52	550384.794164911.52	0.0577	PHASE 1	0.0239	HAUL1	0.23009	HAUL2
ANNUAL	R155	550164.79	4164951.52	550164.794164951.52	0.0245	PHASE 1	0.0131	HAUL1	0.28728	HAUL2
ANNUAL	R156	550405.01	4165031.9	550405.014165031.9	0.0591	PHASE 1	0.0245	HAUL1	0.41312	HAUL2
ANNUAL	R157	550465.01	4165031.9	550465.014165031.9	0.0935	PHASE 1	0.0295	HAUL1	0.72657	HAUL2
ANNUAL	R158	550545.01	4165031.9	550545.014165031.9	0.1201	PHASE 1	0.0384	HAUL1	2.22488	HAUL2
ANNUAL	R159	550605.01	4165031.9	550605.014165031.9	0.1650	PHASE 1	0.0469	HAUL1	0.68248	HAUL2
ANNUAL	R160	550645.01	4165031.9	550645.014165031.9	0.1986	PHASE 1	0.0535	HAUL1	0.47512	HAUL2
ANNUAL	R161	550665.01	4165031.9	550665.014165031.9	0.2152	PHASE 1	0.0569	HAUL1	0.41111	HAUL2
ANNUAL	R162	550705.01	4165031.9	550705.014165031.9	0.2453	PHASE 1	0.0642	HAUL1	0.32044	HAUL2
ANNUAL	R163	550405.01	4165051.9	550405.014165051.9	0.0581	PHASE 1	0.0243	HAUL1	0.45625	HAUL2
ANNUAL	R164	550465.01	4165051.9	550465.014165051.9	0.0765	PHASE 1	0.0291	HAUL1	0.87658	HAUL2
ANNUAL	R165	550545.01	4165051.9	550545.014165051.9	0.1136	PHASE 1	0.0375	HAUL1	1.60752	HAUL2
ANNUAL	R166	550585.01	4165051.9	550585.014165051.9	0.1383	PHASE 1	0.0427	HAUL1	0.77403	HAUL2
ANNUAL	R167	550665.01	4165051.9	550665.014165051.9	0.1924	PHASE 1	0.0548	HAUL1	0.38766	HAUL2
ANNUAL	R168	550705.01	4165051.9	550705.014165051.9	0.2157	PHASE 1	0.0615	HAUL1	0.30509	HAUL2
ANNUAL	R169	550745.01	4165051.9	550745.014165051.9	0.2324	PHASE 1	0.0686	HAUL1	0.24847	HAUL2
ANNUAL	R170	550545.01	4165071.9	550545.014165071.9	0.1076	PHASE 1	0.0367	HAUL1	1.26849	HAUL2
ANNUAL	R171	550585.01	4165071.9	550585.014165071.9	0.1288	PHASE 1	0.0416	HAUL1	0.69455	HAUL2
ANNUAL	R172	550685.01	4165071.9	550685.014165071.9	0.1832	PHASE 1	0.0560	HAUL1	0.32449	HAUL2
ANNUAL	R173	550725.01	4165071.9	550725.014165071.9	0.1990	PHASE 1	0.0624	HAUL1	0.26186	HAUL2
ANNUAL	R174	550585.01	4165091.9	550585.014165091.9	0.0935	PHASE 1	0.0339	HAUL1	1.64006	HAUL2
ANNUAL	R175	550565.01	4165091.9	550565.014165091.9	0.1109	PHASE 1	0.0382	HAUL1	0.78735	HAUL2
ANNUAL	R176	550725.01	4165091.9	550725.014165091.9	0.1777	PHASE 1	0.0599	HAUL1	0.24959	HAUL2
ANNUAL	R177	550525.01	4165111.9	550525.014165111.9	0.0891	PHASE 1	0.0332	HAUL1	1.2922	HAUL2
ANNUAL	R178	550565.01	4165111.9	550565.014165111.9	0.1044	PHASE 1	0.0373	HAUL1	0.70539	HAUL2
ANNUAL	R179	550531.9	4165131.9	550531.94165131.9	0.0787	PHASE 1	0.0281	HAUL1	1.65918	HAUL2
ANNUAL	R180	550545.01	4165131.9	550545.014165131.9	0.0916	PHASE 1	0.0345	HAUL1	0.79911	HAUL2
ANNUAL	R181	550585.01	4165131.9	550585.014165131.9	0.1054	PHASE 1	0.0386	HAUL1	0.53169	HAUL2
ANNUAL	R182	550625.01	4165131.9	550625.014165131.9	0.1193	PHASE 1	0.0430	HAUL1	0.39366	HAUL2
ANNUAL	R183	550705.01	4165131.9	550705.014165131.9	0.1417	PHASE 1	0.0529	HAUL1	0.24813	HAUL2
ANNUAL	R184	550505.01	4165151.9	550505.014165151.9	0.0755	PHASE 1	0.0303	HAUL1	1.31832	HAUL2
ANNUAL	R185	550545.01	4165151.9	550545.014165151.9	0.0869	PHASE 1	0.0338	HAUL1	0.7135	HAUL2
ANNUAL	R186	550605.01	4165151.9	550605.014165151.9	0.1050	PHASE 1	0.0397	HAUL1	0.42117	HAUL2
ANNUAL	R187	550665.01	4165151.9	550665.014165151.9	0.1215	PHASE 1	0.0464	HAUL1	0.28852	HAUL2
ANNUAL	R188	550705.01	4165151.9	550705.014165151.9	0.1297	PHASE 1	0.0512	HAUL1	0.23426	HAUL2
ANNUAL	R189	550505.01	4165171.9	550505.014165171.9	0.0723	PHASE 1	0.0298	HAUL1	1.09069	HAUL2
ANNUAL	R190	550545.01	4165171.9	550545.014165171.9	0.0825	PHASE 1	0.0351	HAUL1	0.64183	HAUL2
ANNUAL	R191	550605.01	4165171.9	550605.014165171.9	0.0984	PHASE 1	0.0387	HAUL1	0.39005	HAUL2
ANNUAL	R192	550665.01	4165171.9	550665.014165171.9	0.1124	PHASE 1	0.0450	HAUL1	0.27011	HAUL2
ANNUAL	R193	550705.01	4165171.9	550705.014165171.9	0.1193	PHASE 1	0.0495	HAUL1	0.22039	HAUL2
ANNUAL	R194	550545.01	4165191.9	550545.014165191.9	0.0785	PHASE 1	0.0324	HAUL1	0.57868	HAUL2
ANNUAL	R195	550605.01	4165191.9	550605.014165191.9	0.0923	PHASE 1	0.0378	HAUL1	0.35974	HAUL2
ANNUAL	R196	550645.01	4165191.9	550645.014165191.9	0.1007	PHASE 1	0.0416	HAUL1	0.2381	HAUL2
ANNUAL	R197	550685.01	4165191.9	550685.014165191.9	0.1075	PHASE 1	0.0458	HAUL1	0.2273	HAUL2
ANNUAL	R198	550585.01	4165211.9	550585.014165211.9	0.0829	PHASE 1	0.0351	HAUL1	0.37808	HAUL2
ANNUAL	R199	550625.01	4165211.9	550625.014165211.9	0.0906	PHASE 1	0.0386	HAUL1	0.29137	HAUL2
ANNUAL	R200	550665.01	4165211.9	550665.014165211.9	0.0972	PHASE 1	0.0424	HAUL1	0.23358	HAUL2
ANNUAL	R201	550685.01	4165031.9	550685.014165031.9	0.2309	PHASE 1	0.2309	HAUL1	0.3609	HAUL2
ANNUAL	R202	550725.01	4165031.9	550725.014165031.9	0.2578	PHASE 1	0.0680	HAUL1	0.28719	HAUL2
ANNUAL	R203	550445.01	4165051.9	550445.014165051.9	0.0696	PHASE 1	0.0274	HAUL1	0.64461	HAUL2
ANNUAL	R204	550485.01	4165051.9	550485.014165051.9	0.0842	PHASE 1	0.0310	HAUL1	1.47456	HAUL2
ANNUAL	R205	550565.01	4165051.9	550565.014165051.9	0.1255	PHASE 1	0.0400	HAUL1	1.03698	HAUL2
ANNUAL	R206	550645.01	4165051.9	550645.014165051.9	0.1792	PHASE 1	0.0516	HAUL1	0.44477	HAUL2
ANNUAL	R207	550685.01	4165051.9	550685.014165051.9	0.2047	PHASE 1	0.0541	HAUL1	0.34218	HAUL2
ANNUAL	R208	550725.01	4165051.9	550725.014165051.9	0.2251	PHASE 1	0.0650	HAUL1	0.27434	HAUL2
ANNUAL	R209	550525.01	4165071.9	550525.014165071.9	0.0980	PHASE 1	0.0345	HAUL1	2.26722	HAUL2
ANNUAL	R210	550565.01	4165071.9	550565.014165071.9	0.1179	PHASE 1	0.0391	HAUL1	0.89303	HAUL2
ANNUAL	R211	550605.01	4165071.9	550605.014165071.9	0.1401	PHASE 1	0.0442	HAUL1	0.56996	HAUL2
ANNUAL	R212	550705.01	4165071.9	550705.014165071.9	0.1918	PHASE 1	0.0591	HAUL1	0.28937	HAUL2
ANNUAL	R213	550745.01	4165071.9	550745.014165071.9	0.2047	PHASE 1	0.0657	HAUL1	0.23737	HAUL2
ANNUAL	R214	550545.01	4165091.9	550545.014165091.9	0.1019	PHASE 1	0.0360	HAUL1	1.05595	HAUL2
ANNUAL	R215	550585.01	4165091.9	550585.014165091.9	0.1202	PHASE 1	0.0406	HAUL1	0.63086	HAUL2
ANNUAL	R216	550505.01	4165111.9	550505.014165111.9	0.0821	PHASE 1	0.0314	HAUL1	2.31272	HAUL2
ANNUAL	R217	550545.01	4165111.9	550545.014165111.9	0.0966	PHASE 1	0.0352	HAUL1	0.9083	HAUL2
ANNUAL	R218	550585.01	4165111.9	550585.014165111.9	0.1095	PHASE 1	0.0415	HAUL1	0.57777	HAUL2
ANNUAL	R219	550525.01	4165131.9	550525.014165131.9	0.0850	PHASE 1	0.0326	HAUL1	1.07378	HAUL2
ANNUAL	R220	550565.01	4165131.9	550565.014165131.9	0.0984	PHASE 1	0.0365	HAUL1	0.63873	HAUL2
ANNUAL	R221	550605.01	4165131.9	550605.014165131.9	0.1124	PHASE 1	0.0408	HAUL1	0.4537	HAUL2
ANNUAL	R222	550685.01	4165131.9	550685.014165131.9	0.1371	PHASE 1	0.0503	HAUL1	0.27504	HAUL2
ANNUAL	R223	550485.01	4165151.9	550485.014165151.9	0.0702	PHASE 1	0.0287	HAUL1	2.36716	HAUL2
ANNUAL	R224	550525.01	4165151.9	550525.014165151.9	0.0811	PHASE 1	0.0320	HAUL1	0.92127	HAUL2
ANNUAL	R225	550565.01	4165151.9	550565.014165151.9	0.0929	PHASE 1	0.0357	HAUL1	0.58202	HAUL2
ANNUAL	R226	550625.01	4165151.9	550625.014165151.9	0.1109	PHASE 1	0.0419	HAUL1	0.36724	HAUL2
ANNUAL	R227	550685.01	4165151.9	550685.014165151.9	0.1259	PHASE 1	0.0487	HAUL1	0.25907	HAUL2
ANNUAL	R228	550485.01	4165171.9	550485.014165171.9	0.0675	PHASE 1	0.0282	HAUL1	1.70262	HAUL2
ANNUAL	R229	550525.01	4165171.9	550525.014165171.9	0.0773	PHASE 1	0.0314	HAUL1	0.80774	HAUL2
ANNUAL	R230	550585.01	4165171.9	550585.014165171.9	0.0932	PHASE 1	0.0368	HAUL1	0.45136	HAUL2
ANNUAL	R231	550625.01	4165171.9	550625.014165171.9	0.1034	PHASE 1	0.0407	HAUL1	0.34156	HAUL2
ANNUAL	R232	550685.01	4165171.9	5						

ANNUAL	R277	550865.45	4165372.15	550865.454165372.15	0.0605	PHASE 1	0.0524	HAUL1	0.0633	HAUL2
ANNUAL	R278	550405.6	4164911.75	550405.64164911.75	0.0641	PHASE 1	0.0256	HAUL1	0.24757	HAUL2
ANNUAL	R279	550405.6	4164931.75	550405.64164931.75	0.0631	PHASE 1	0.0261	HAUL1	0.24895	HAUL2
ANNUAL	R280	550465.6	4164931.75	550465.64164931.75	0.0890	PHASE 1	0.0314	HAUL1	0.38145	HAUL2
ANNUAL	R281	550625.01	4165231.9	550625.014165231.9	0.0851	PHASE 1	0.0376	HAUL1	0.26673	HAUL2
ANNUAL	R282	550665.01	4165231.9	550665.014165231.9	0.0908	PHASE 1	0.0413	HAUL1	0.21552	HAUL2
ANNUAL	R283	550645.01	4165251.9	550645.014165251.9	0.0827	PHASE 1	0.0384	HAUL1	0.21822	HAUL2
ANNUAL	R284	550685.01	4165251.9	550685.014165251.9	0.0870	PHASE 1	0.0420	HAUL1	0.18035	HAUL2
ANNUAL	R285	550925.45	4165192.15	550925.454165192.15	0.1130	PHASE 1	0.0319	HAUL1	0.09408	HAUL2
ANNUAL	R286	550965.45	4165192.15	550965.454165192.15	0.1109	PHASE 1	0.0945	HAUL1	0.08441	HAUL2
ANNUAL	R287	550905.45	4165212.15	550905.454165212.15	0.1044	PHASE 1	0.0754	HAUL1	0.09463	HAUL2
ANNUAL	R288	550945.45	4165212.15	550945.454165212.15	0.1024	PHASE 1	0.0852	HAUL1	0.08479	HAUL2
ANNUAL	R289	550985.45	4165212.15	550985.454165212.15	0.0991	PHASE 1	0.0984	HAUL1	0.07649	HAUL2
ANNUAL	R290	551045.45	4165232.15	551045.454165232.15	0.0903	PHASE 1	0.0595	HAUL1	0.06521	HAUL2
ANNUAL	R291	550905.45	4165232.15	550905.454165232.15	0.0962	PHASE 1	0.0728	HAUL1	0.08967	HAUL2
ANNUAL	R292	550945.45	4165232.15	550945.454165232.15	0.0939	PHASE 1	0.0824	HAUL1	0.08056	HAUL2
ANNUAL	R293	550985.45	4165232.15	550985.454165232.15	0.0904	PHASE 1	0.0953	HAUL1	0.07285	HAUL2
ANNUAL	R294	551045.45	4165232.15	551045.454165232.15	0.0820	PHASE 1	0.1266	HAUL1	0.06334	HAUL2
ANNUAL	R295	550885.45	4165252.15	550885.454165252.15	0.0898	PHASE 1	0.0666	HAUL1	0.08955	HAUL2
ANNUAL	R296	550925.45	4165252.15	550925.454165252.15	0.0878	PHASE 1	0.0748	HAUL1	0.08039	HAUL2
ANNUAL	R297	550965.45	4165252.15	550965.454165252.15	0.0849	PHASE 1	0.0855	HAUL1	0.07266	HAUL2
ANNUAL	R298	551045.45	4165252.15	551045.454165252.15	0.0751	PHASE 1	0.1237	HAUL1	0.0604	HAUL2
ANNUAL	R299	551085.45	4165252.15	551085.454165252.15	0.0687	PHASE 1	0.1614	HAUL1	0.05551	HAUL2
ANNUAL	R300	550885.45	4165272.15	550885.454165272.15	0.0834	PHASE 1	0.0644	HAUL1	0.08431	HAUL2
ANNUAL	R301	550925.45	4165272.15	550925.454165272.15	0.0813	PHASE 1	0.0644	HAUL1	0.07593	HAUL2
ANNUAL	R302	551025.45	4165272.15	551025.454165272.15	0.0718	PHASE 1	0.0788	HAUL1	0.06503	HAUL2
ANNUAL	R303	551065.45	4165272.15	551065.454165272.15	0.0663	PHASE 1	0.1371	HAUL1	0.05515	HAUL2
ANNUAL	R304	551105.45	4165272.15	551105.454165272.15	0.0606	PHASE 1	0.1907	HAUL1	0.0509	HAUL2
ANNUAL	R305	550885.45	4165292.15	550885.454165292.15	0.0776	PHASE 1	0.0624	HAUL1	0.07919	HAUL2
ANNUAL	R306	550925.45	4165292.15	550925.454165292.15	0.0755	PHASE 1	0.0701	HAUL1	0.07157	HAUL2
ANNUAL	R307	551025.45	4165292.15	551025.454165292.15	0.0664	PHASE 1	0.1047	HAUL1	0.05597	HAUL2
ANNUAL	R308	551065.45	4165292.15	551065.454165292.15	0.0615	PHASE 1	0.1339	HAUL1	0.05248	HAUL2
ANNUAL	R309	550865.45	4165312.15	550865.454165312.15	0.0732	PHASE 1	0.0574	HAUL1	0.07811	HAUL2
ANNUAL	R310	550905.45	4165312.15	550905.454165312.15	0.0715	PHASE 1	0.0640	HAUL1	0.07064	HAUL2
ANNUAL	R311	550945.45	4165312.15	550945.454165312.15	0.0690	PHASE 1	0.0725	HAUL1	0.06428	HAUL2
ANNUAL	R312	551045.45	4165312.15	551045.454165312.15	0.0595	PHASE 1	0.1143	HAUL1	0.05187	HAUL2
ANNUAL	R313	550885.45	4165332.15	550885.454165332.15	0.0671	PHASE 1	0.0686	HAUL1	0.06945	HAUL2
ANNUAL	R314	550925.45	4165332.15	550925.454165332.15	0.0657	PHASE 1	0.0658	HAUL1	0.06325	HAUL2
ANNUAL	R315	551005.45	4165332.15	551005.454165332.15	0.0595	PHASE 1	0.0890	HAUL1	0.05323	HAUL2
ANNUAL	R316	550945.45	4165352.15	550945.454165352.15	0.0603	PHASE 1	0.0679	HAUL1	0.05683	HAUL2
ANNUAL	R317	550885.45	4165372.15	550885.454165372.15	0.0597	PHASE 1	0.0551	HAUL1	0.06055	HAUL2
ANNUAL	R318	550425.6	4164911.75	550425.64164911.75	0.0715	PHASE 1	0.0715	HAUL1	0.27014	HAUL2
ANNUAL	R319	550425.6	4164931.75	550425.64164931.75	0.0705	PHASE 1	0.0272	HAUL1	0.29376	HAUL2
ANNUAL	R320	550485.6	4164931.75	550485.64164931.75	0.1012	PHASE 1	0.0338	HAUL1	0.46001	HAUL2
ANNUAL	R321	550505.6	4164931.75	550505.64164931.75	0.1161	PHASE 1	0.0365	HAUL1	0.58991	HAUL2
ANNUAL	R322	550425.6	4164951.75	550425.64164951.75	0.0695	PHASE 1	0.0270	HAUL1	0.32027	HAUL2
ANNUAL	R323	550525.6	4164951.75	550525.64164951.75	0.1293	PHASE 1	0.0388	HAUL1	1.07899	HAUL2
ANNUAL	R324	550505.6	4164971.75	550505.64164971.75	0.1084	PHASE 1	0.0354	HAUL1	0.85059	HAUL2
ANNUAL	R325	550585.6	4164971.75	550585.64164971.75	0.1901	PHASE 1	0.0479	HAUL1	1.53006	HAUL2
ANNUAL	R326	550625.6	4164971.75	550625.64164971.75	0.2525	PHASE 1	0.0559	HAUL1	0.74118	HAUL2
ANNUAL	R327	550505.6	4164991.75	550505.64164991.75	0.1048	PHASE 1	0.0348	HAUL1	1.08584	HAUL2
ANNUAL	R328	550585.6	4164991.75	550585.64164991.75	0.1748	PHASE 1	0.0465	HAUL1	1.21115	HAUL2
ANNUAL	R329	550625.6	4164991.75	550625.64164991.75	0.2245	PHASE 1	0.0466	HAUL1	0.65597	HAUL2
ANNUAL	R330	550665.6	4164991.75	550665.64164991.75	0.2790	PHASE 1	0.0620	HAUL1	0.46402	HAUL2
ANNUAL	R331	550585.6	4165011.75	550585.64165011.75	0.1614	PHASE 1	0.0452	HAUL1	1.01008	HAUL2
ANNUAL	R332	550625.6	4165011.75	550625.64165011.75	0.2015	PHASE 1	0.0520	HAUL1	0.60639	HAUL2
ANNUAL	R333	550665.6	4165011.75	550665.64165011.75	0.2439	PHASE 1	0.0594	HAUL1	0.43528	HAUL2
ANNUAL	R334	550705.6	4165011.75	550705.64165011.75	0.2836	PHASE 1	0.0673	HAUL1	0.33563	HAUL2
ANNUAL	R335	551378.51	4165172.16	551378.514165172.16	0.0534	PHASE 1	0.0534	HAUL1	0.05816	HAUL2
ANNUAL	R336	551418.51	4165172.16	551418.514165172.16	0.0498	PHASE 1	0.4331	HAUL1	0.03582	HAUL2
ANNUAL	R337	551338.51	4165192.16	551338.514165192.16	0.0524	PHASE 1	1.0191	HAUL1	0.09399	HAUL2
ANNUAL	R338	551378.51	4165192.16	551378.514165192.16	0.0490	PHASE 1	0.5784	HAUL1	0.03695	HAUL2
ANNUAL	R339	551418.51	4165192.16	551418.514165192.16	0.0459	PHASE 1	0.3960	HAUL1	0.03474	HAUL2
ANNUAL	R340	551338.51	4165212.16	551338.514165212.16	0.0481	PHASE 1	0.6115	HAUL1	0.03805	HAUL2
ANNUAL	R341	551378.51	4165212.16	551378.514165212.16	0.0451	PHASE 1	0.5183	HAUL1	0.03576	HAUL2
ANNUAL	R342	551418.51	4165212.16	551418.514165212.16	0.0424	PHASE 1	0.3619	HAUL1	0.03365	HAUL2
ANNUAL	R343	551358.51	4165232.16	551358.514165232.16	0.0430	PHASE 1	0.5734	HAUL1	0.03564	HAUL2
ANNUAL	R344	551398.51	4165232.16	551398.514165232.16	0.0405	PHASE 1	0.3880	HAUL1	0.03355	HAUL2
ANNUAL	R345	551378.51	4165252.16	551378.514165252.16	0.0387	PHASE 1	0.4167	HAUL1	0.03338	HAUL2
ANNUAL	R346	551378.51	4165272.16	551378.514165272.16	0.0361	PHASE 1	0.0361	HAUL1	0.37220	HAUL2
ANNUAL	R347	551498.28	4164852.3	551498.284164852.3	0.1089	PHASE 1	0.2273	HAUL1	0.04235	HAUL2
ANNUAL	R348	551538.28	4164852.3	551538.284164852.3	0.0971	PHASE 1	0.2001	HAUL1	0.03978	HAUL2
ANNUAL	R349	551458.28	4164872.3	551458.284164872.3	0.1199	PHASE 1	0.2847	HAUL1	0.04409	HAUL2
ANNUAL	R350	551498.28	4164872.3	551498.284164872.3	0.1059	PHASE 1	0.2453	HAUL1	0.04206	HAUL2
ANNUAL	R351	551538.28	4164872.3	551538.284164872.3	0.0945	PHASE 1	0.2129	HAUL1	0.0395	HAUL2
ANNUAL	R352	551458.28	4164892.3	551458.284164892.3	0.1160	PHASE 1	0.3133	HAUL1	0.04513	HAUL2
ANNUAL	R353	551498.28	4164892.3	551498.284164892.3	0.1026	PHASE 1	0.2648	HAUL1	0.0417	HAUL2
ANNUAL	R354	551538.28	4164892.3	551538.284164892.3	0.0916	PHASE 1	0.2260	HAUL1	0.03917	HAUL2
ANNUAL	R355	551458.28	4164912.3	551458.284164912.3	0.1116	PHASE 1	0.3460	HAUL1	0.04405	HAUL2
ANNUAL	R356	551498.28	4164912.3	551498.284164912.3	0.0988	PHASE 1	0.2853	HAUL1	0.04128	HAUL2
ANNUAL	R357	551538.28	4164912.3	551538.284164912.3	0.0881	PHASE 1	0.2889	HAUL1	0.03978	HAUL2
ANNUAL	R358	551458.28	4164932.3	551458.284164932.3	0.1068	PHASE 1	0.3824	HAUL1	0.04353	HAUL2
ANNUAL	R359	551498.28	4164932.3	551498.284164932.3	0.0947	PHASE 1	0.3059	HAUL1	0.0408	HAUL2
ANNUAL	R360	551538.28	4164932.3	551538.284164932.3	0.0848	PHASE 1	0.2510	HAUL1	0.03833	HAUL2
ANNUAL	R361	550405.6	4164951.75	550405.64164951.75	0.0627	PHASE 1	0.0253	HAUL1	0.29073	HAUL2
ANNUAL	R362	550465.6	4164951.75	550465.64164951.75	0.0871	PHASE 1	0.0311	HAUL1	0.42593	HAUL2
ANNUAL	R363	550405.6	4164971.75	550405.64164971.75	0.0955	PHASE 1	0.0329	HAUL1	0.60529	HAUL2
ANNUAL	R364	550525.6	4164971.75	550525.64164971.75	0.1239	PHASE 1	0.0381	HAUL1	1.49118	HAUL2
ANNUAL	R365	550605.6	4164971.75	550605.64164971.75	0.2197	PHASE 1	0.0517	HAUL1	0.99222	HAUL2
ANNUAL	R366	550405.6	4164991.75	550405.64164991.75	0.0611	PHASE 1	0.0250	HAUL1	0.34455	HAUL2
ANNUAL	R367	550565.6	4164991.75	550565.64164991.75	0.1534	PHASE 1	0.0432	HAUL1	2.13871	HAUL2
ANNUAL	R368	550605.6	4164991.75	550605.64164991.75	0.1987	PHASE 1	0.1987	HAUL1	0.85555	HAUL2
ANNUAL	R369	550645.6	4164991.75	550645.64164991.75	0.2515	PHASE 1	0.0578	HAUL1	0.54701	HAUL2
ANNUAL	R370	550565.6	4165011.75	550565.64165011.75	0.1435	PHASE 1</				

ANNUAL	R416	551358.28	4165072.3	551358.284165072.3	0.0890	PHASE 1	3.0291	HAUL1	0.04533	HAUL2
ANNUAL	R417	551398.28	4165072.3	551398.284165072.3	0.0798	PHASE 1	0.9762	HAUL1	0.04235	HAUL2
ANNUAL	R418	551438.28	4165072.3	551438.284165072.3	0.0721	PHASE 1	0.9725	HAUL1	0.03965	HAUL2
ANNUAL	R419	551358.28	4165092.3	551358.284165092.3	0.0808	PHASE 1	2.0353	HAUL1	0.0442	HAUL2
ANNUAL	R420	551398.28	4165092.3	551398.284165092.3	0.0732	PHASE 1	0.8337	HAUL1	0.04133	HAUL2
ANNUAL	R421	551438.28	4165092.3	551438.284165092.3	0.0666	PHASE 1	0.5241	HAUL1	0.03872	HAUL2
ANNUAL	R422	551338.28	4165112.3	551338.284165112.3	0.0770	PHASE 1	3.1266	HAUL1	0.04452	HAUL2
ANNUAL	R423	551378.28	4165112.3	551378.284165112.3	0.0701	PHASE 1	0.9843	HAUL1	0.04161	HAUL2
ANNUAL	R424	551418.28	4165112.3	551418.284165112.3	0.0641	PHASE 1	0.3779	HAUL1	0.03898	HAUL2
ANNUAL	R425	551458.28	4165112.3	551458.284165112.3	0.0588	PHASE 1	0.4048	HAUL1	0.03659	HAUL2
ANNUAL	R426	551358.28	4165132.3	551358.284165132.3	0.0666	PHASE 1	1.2097	HAUL1	0.04184	HAUL2
ANNUAL	R427	551398.28	4165132.3	551398.284165132.3	0.0613	PHASE 1	0.6454	HAUL1	0.03918	HAUL2
ANNUAL	R428	551438.28	4165132.3	551438.284165132.3	0.0566	PHASE 1	0.4373	HAUL1	0.03677	HAUL2
ANNUAL	R429	551338.28	4165152.3	551338.284165152.3	0.0630	PHASE 1	1.5691	HAUL1	0.041	HAUL2
ANNUAL	R430	551378.28	4165152.3	551378.284165152.3	0.0583	PHASE 1	0.7352	HAUL1	0.03932	HAUL2
ANNUAL	R431	551418.28	4165152.3	551418.284165152.3	0.0541	PHASE 1	0.4751	HAUL1	0.03689	HAUL2
ANNUAL	R432	551338.28	4165172.3	551338.284165172.3	0.0573	PHASE 1	1.2404	HAUL1	0.0407	HAUL2
ANNUAL	R433	551378.28	4165172.3	551378.284165172.3	0.0534	PHASE 1	0.6499	HAUL1	0.03815	HAUL2
ANNUAL	R434	551298.14	4164530.93	551298.144164530.93	0.1298	PHASE 1	0.1130	HAUL1	0.04929	HAUL2
ANNUAL	R435	551318.14	4164550.93	551318.144164550.93	0.1346	PHASE 1	0.1177	HAUL1	0.04949	HAUL2
ANNUAL	R436	551298.14	4164570.93	551298.144164570.93	0.1498	PHASE 1	0.1339	HAUL1	0.05238	HAUL2
ANNUAL	R437	551338.14	4164570.93	551338.144164570.93	0.1377	PHASE 1	0.1218	HAUL1	0.04928	HAUL2
ANNUAL	R438	551298.14	4164590.93	551298.144164590.93	0.1601	PHASE 1	0.1456	HAUL1	0.05379	HAUL2
ANNUAL	R439	551338.14	4164590.93	551338.144164590.93	0.1459	PHASE 1	0.1316	HAUL1	0.05049	HAUL2
ANNUAL	R440	551378.14	4164590.93	551378.144164590.93	0.1329	PHASE 1	0.1198	HAUL1	0.04745	HAUL2
ANNUAL	R441	551478.28	4164952.3	551478.284164952.3	0.0957	PHASE 1	0.3679	HAUL1	0.04156	HAUL2
ANNUAL	R442	551518.28	4164952.3	551518.284164952.3	0.0856	PHASE 1	0.2905	HAUL1	0.03902	HAUL2
ANNUAL	R443	551418.28	4164972.3	551418.284164972.3	0.1091	PHASE 1	0.6697	HAUL1	0.04526	HAUL2
ANNUAL	R444	551458.28	4164972.3	551458.284164972.3	0.0962	PHASE 1	0.4582	HAUL1	0.04231	HAUL2
ANNUAL	R445	551498.28	4164972.3	551498.284164972.3	0.0859	PHASE 1	0.3420	HAUL1	0.03998	HAUL2
ANNUAL	R446	551538.28	4164972.3	551538.284164972.3	0.0773	PHASE 1	0.2699	HAUL1	0.0373	HAUL2
ANNUAL	R447	551418.28	4164992.3	551418.284164992.3	0.1024	PHASE 1	0.7756	HAUL1	0.0445	HAUL2
ANNUAL	R448	551458.28	4164992.3	551458.284164992.3	0.0907	PHASE 1	0.4890	HAUL1	0.04162	HAUL2
ANNUAL	R449	551498.28	4164992.3	551498.284164992.3	0.0812	PHASE 1	0.3542	HAUL1	0.03904	HAUL2
ANNUAL	R450	551478.28	4165012.3	551478.284165012.3	0.0806	PHASE 1	0.4216	HAUL1	0.03958	HAUL2
ANNUAL	R451	551438.28	4165012.3	551438.284165012.3	0.0888	PHASE 1	0.4210	HAUL1	0.04282	HAUL2
ANNUAL	R452	551478.28	4165012.3	551478.284165012.3	0.0755	PHASE 1	0.4219	HAUL1	0.03881	HAUL2
ANNUAL	R453	551378.28	4165052.3	551378.284165052.3	0.0920	PHASE 1	1.9834	HAUL1	0.04484	HAUL2
ANNUAL	R454	551438.28	4165052.3	551438.284165052.3	0.0779	PHASE 1	0.6178	HAUL1	0.04056	HAUL2
ANNUAL	R455	551478.28	4165052.3	551478.284165052.3	0.0705	PHASE 1	0.4124	HAUL1	0.03804	HAUL2
ANNUAL	R456	551378.28	4165072.3	551378.284165072.3	0.0842	PHASE 1	1.4784	HAUL1	0.0438	HAUL2
ANNUAL	R457	551418.28	4165072.3	551418.284165072.3	0.0758	PHASE 1	0.7267	HAUL1	0.04097	HAUL2
ANNUAL	R458	551458.28	4165072.3	551458.284165072.3	0.0687	PHASE 1	0.4697	HAUL1	0.0384	HAUL2
ANNUAL	R459	551378.28	4165092.3	551378.284165092.3	0.0768	PHASE 1	1.1814	HAUL1	0.04272	HAUL2
ANNUAL	R460	551418.28	4165092.3	551418.284165092.3	0.0697	PHASE 1	0.6451	HAUL1	0.03999	HAUL2
ANNUAL	R461	551458.28	4165092.3	551458.284165092.3	0.0636	PHASE 1	0.4377	HAUL1	0.03751	HAUL2
ANNUAL	R462	551358.28	4165112.3	551358.284165112.3	0.0734	PHASE 1	0.5193	HAUL1	0.04303	HAUL2
ANNUAL	R463	551398.28	4165112.3	551398.284165112.3	0.0670	PHASE 1	0.4012	HAUL1	0.04016	HAUL2
ANNUAL	R464	551438.28	4165112.3	551438.284165112.3	0.0614	PHASE 1	0.4780	HAUL1	0.03775	HAUL2
ANNUAL	R465	551338.28	4165132.3	551338.284165132.3	0.0696	PHASE 1	2.1228	HAUL1	0.04327	HAUL2
ANNUAL	R466	551378.28	4165132.3	551378.284165132.3	0.0639	PHASE 1	0.8427	HAUL1	0.04048	HAUL2
ANNUAL	R467	551418.28	4165132.3	551418.284165132.3	0.0589	PHASE 1	0.5224	HAUL1	0.03795	HAUL2
ANNUAL	R468	551458.28	4165132.3	551458.284165132.3	0.0541	PHASE 1	0.3738	HAUL1	0.0358	HAUL2
ANNUAL	R469	551358.28	4165152.3	551358.284165152.3	0.0606	PHASE 1	1.0033	HAUL1	0.04062	HAUL2
ANNUAL	R470	551398.28	4165152.3	551398.284165152.3	0.0562	PHASE 1	0.5784	HAUL1	0.03808	HAUL2
ANNUAL	R471	551318.28	4165172.3	551318.284165172.3	0.0595	PHASE 1	2.2309	HAUL1	0.04209	HAUL2
ANNUAL	R472	551358.28	4165172.3	551358.284165172.3	0.0553	PHASE 1	0.8551	HAUL1	0.03939	HAUL2
ANNUAL	R473	551678.14	4164370.93	551678.144164370.93	0.0513	PHASE 1	0.0429	HAUL1	0.02693	HAUL2
ANNUAL	R474	551298.14	4164550.93	551298.144164550.93	0.1397	PHASE 1	0.1397	HAUL1	0.05091	HAUL2
ANNUAL	R475	551358.14	4164550.93	551358.144164550.93	0.1245	PHASE 1	0.1079	HAUL1	0.04662	HAUL2
ANNUAL	R476	551318.14	4164570.93	551318.144164570.93	0.1437	PHASE 1	0.1276	HAUL1	0.0508	HAUL2
ANNUAL	R477	551358.14	4164570.93	551358.144164570.93	0.1319	PHASE 1	0.1164	HAUL1	0.04782	HAUL2
ANNUAL	R478	551318.14	4164590.93	551318.144164590.93	0.1529	PHASE 1	0.1383	HAUL1	0.05211	HAUL2
ANNUAL	R479	551358.14	4164590.93	551358.144164590.93	0.1392	PHASE 1	0.1264	HAUL1	0.04894	HAUL2
ANNUAL	R480	551298.14	4164610.93	551298.144164610.93	0.1704	PHASE 1	0.1582	HAUL1	0.05511	HAUL2
ANNUAL	R481	551318.14	4164610.93	551318.144164610.93	0.1620	PHASE 1	0.1498	HAUL1	0.05332	HAUL2
ANNUAL	R482	551358.14	4164610.93	551358.144164610.93	0.1464	PHASE 1	0.1351	HAUL1	0.04996	HAUL2
ANNUAL	R483	551398.14	4164610.93	551398.144164610.93	0.1325	PHASE 1	0.1230	HAUL1	0.04691	HAUL2
ANNUAL	R484	551438.14	4164610.93	551438.144164610.93	0.1204	PHASE 1	0.1133	HAUL1	0.04416	HAUL2
ANNUAL	R485	551358.14	4164630.93	551358.144164630.93	0.0670	PHASE 1	0.1455	HAUL1	0.05029	HAUL2
ANNUAL	R486	551398.14	4164630.93	551398.144164630.93	0.1378	PHASE 1	0.1319	HAUL1	0.04771	HAUL2
ANNUAL	R487	551298.14	4164650.93	551298.144164650.93	0.1904	PHASE 1	0.1869	HAUL1	0.05739	HAUL2
ANNUAL	R488	551338.14	4164650.93	551338.144164650.93	0.1692	PHASE 1	0.1659	HAUL1	0.05354	HAUL2
ANNUAL	R489	551398.14	4164650.93	551398.144164650.93	0.1427	PHASE 1	0.1415	HAUL1	0.04842	HAUL2
ANNUAL	R490	551438.14	4164650.93	551438.144164650.93	0.1282	PHASE 1	0.1283	HAUL1	0.04545	HAUL2
ANNUAL	R491	551298.14	4164670.93	551298.144164670.93	0.1997	PHASE 1	0.1997	HAUL1	0.05834	HAUL2
ANNUAL	R492	551338.14	4164670.93	551338.144164670.93	0.1761	PHASE 1	0.1705	HAUL1	0.05434	HAUL2
ANNUAL	R493	551378.14	4164670.93	551378.144164670.93	0.1560	PHASE 1	0.1601	HAUL1	0.05071	HAUL2
ANNUAL	R494	551418.14	4164670.93	551418.144164670.93	0.1390	PHASE 1	0.1447	HAUL1	0.04747	HAUL2
ANNUAL	R495	551478.14	4164670.93	551478.144164670.93	0.1181	PHASE 1	0.1273	HAUL1	0.04319	HAUL2
ANNUAL	R496	551318.14	4164690.93	551318.144164690.93	0.1948	PHASE 1	0.1948	HAUL1	0.05793	HAUL2
ANNUAL	R497	551358.14	4164690.93	551358.144164690.93	0.1709	PHASE 1	0.1830	HAUL1	0.0531	HAUL2
ANNUAL	R498	551398.14	4164690.93	551398.144164690.93	0.1509	PHASE 1	0.1633	HAUL1	0.04957	HAUL2
ANNUAL	R499	551458.14	4164690.93	551458.144164690.93	0.1269	PHASE 1	0.1415	HAUL1	0.04494	HAUL2
ANNUAL	R500	551338.14	4164710.93	551338.144164710.93	0.1877	PHASE 1	0.2116	HAUL1	0.05558	HAUL2
ANNUAL	R501	551378.14	4164710.93	551378.144164710.93	0.1642	PHASE 1	0.1864	HAUL1	0.05175	HAUL2
ANNUAL	R502	551418.14	4164710.93	551418.144164710.93	0.1448	PHASE 1	0.1666	HAUL1	0.04857	HAUL2
ANNUAL	R503	551458.14	4164710.93	551458.144164710.93	0.1286	PHASE 1	0.1512	HAUL1	0.04526	HAUL2
ANNUAL	R504	551398.14	4164730.93	551398.144164730.93	0.1565	PHASE 1	0.1899	HAUL1	0.05032	HAUL2
ANNUAL	R505	551418.14	4164750.93	551418.144164750.93	0.1479	PHASE 1	0.1935	HAUL1	0.04883	HAUL2
ANNUAL	R506	550697.48	4164311.07	550697.484164311.07	0.0415	PHASE 1	0.0272	HAUL1	0.02229	HAUL2
ANNUAL	R507	550637.48	4164311.07	550637.484164311.07	0.0580	PHASE 1	0.03	HAUL1	0.02377	HAUL2
ANNUAL	R508	550697.48	4164311.07	550697.484164311.07	0.0599	PHASE 1	0.0426	HAUL1	0.02732	HAUL2
ANNUAL	R509	550737.48	4164311.07	550737.484164311.07	0.0593	PHASE 1	0.0448</			

ANNUAL	R555	550577.48	4164351.07	550577.484164351.07	0.0611	PHASE 1	0.0356	HAUL1	0.03756	HAUL2
ANNUAL	R556	550637.48	4164351.07	550637.484164351.07	0.0672	PHASE 1	0.0428	HAUL1	0.03526	HAUL2
ANNUAL	R557	550677.48	4164351.07	550677.484164351.07	0.0694	PHASE 1	0.0471	HAUL1	0.03288	HAUL2
ANNUAL	R558	550717.48	4164351.07	550717.484164351.07	0.0698	PHASE 1	0.0505	HAUL1	0.03097	HAUL2
ANNUAL	R559	550777.48	4164351.07	550777.484164351.07	0.0679	PHASE 1	0.0538	HAUL1	0.0299	HAUL2
ANNUAL	R560	550817.48	4164351.07	550817.484164351.07	0.0659	PHASE 1	0.0553	HAUL1	0.0305	HAUL2
ANNUAL	R561	550837.48	4164351.07	550837.484164351.07	0.0647	PHASE 1	0.0559	HAUL1	0.03104	HAUL2
ANNUAL	R562	550577.48	4164371.07	550577.484164371.07	0.0652	PHASE 1	0.0373	HAUL1	0.04083	HAUL2
ANNUAL	R563	550617.48	4164371.07	550617.484164371.07	0.0704	PHASE 1	0.0428	HAUL1	0.03954	HAUL2
ANNUAL	R564	550677.48	4164371.07	550677.484164371.07	0.0751	PHASE 1	0.0506	HAUL1	0.0359	HAUL2
ANNUAL	R565	550717.48	4164371.07	550717.484164371.07	0.0758	PHASE 1	0.0546	HAUL1	0.03362	HAUL2
ANNUAL	R566	550757.48	4164371.07	550757.484164371.07	0.0749	PHASE 1	0.0573	HAUL1	0.03255	HAUL2
ANNUAL	R567	550857.48	4164371.07	550857.484164371.07	0.0699	PHASE 1	0.0618	HAUL1	0.03481	HAUL2
ANNUAL	R568	550717.48	4164391.07	550717.484164391.07	0.0826	PHASE 1	0.0592	HAUL1	0.03668	HAUL2
ANNUAL	R569	550757.48	4164391.07	550757.484164391.07	0.0819	PHASE 1	0.0625	HAUL1	0.03556	HAUL2
ANNUAL	R570	550797.48	4164391.07	550797.484164391.07	0.0803	PHASE 1	0.0649	HAUL1	0.03612	HAUL2
ANNUAL	R571	550857.48	4164391.07	550857.484164391.07	0.0772	PHASE 1	0.0680	HAUL1	0.03851	HAUL2
ANNUAL	R572	550757.48	4164411.07	550757.484164411.07	0.0899	PHASE 1	0.0684	HAUL1	0.03912	HAUL2
ANNUAL	R573	550797.48	4164411.07	550797.484164411.07	0.0885	PHASE 1	0.0714	HAUL1	0.04002	HAUL2
ANNUAL	R574	550857.48	4164411.07	550857.484164411.07	0.0859	PHASE 1	0.0756	HAUL1	0.04292	HAUL2
ANNUAL	R575	550837.48	4164431.07	550837.484164431.07	0.0970	PHASE 1	0.0830	HAUL1	0.04711	HAUL2
ANNUAL	R576	550837.48	4164451.07	550837.484164451.07	0.1092	PHASE 1	0.0938	HAUL1	0.05344	HAUL2
ANNUAL	R577	550857.48	4164471.07	550857.484164471.07	0.1239	PHASE 1	0.1104	HAUL1	0.06225	HAUL2
ANNUAL	R578	551045.12	4165591.04	551045.124165591.04	0.0282	PHASE 1	0.0584	HAUL1	0.02385	HAUL2
ANNUAL	R579	550857.48	4164351.07	550857.484164351.07	0.0635	PHASE 1	0.0565	HAUL1	0.03187	HAUL2
ANNUAL	R580	550597.48	4164371.07	550597.484164371.07	0.0679	PHASE 1	0.0400	HAUL1	0.04033	HAUL2
ANNUAL	R581	550657.48	4164371.07	550657.484164371.07	0.0740	PHASE 1	0.0481	HAUL1	0.03722	HAUL2
ANNUAL	R582	550697.48	4164371.07	550697.484164371.07	0.0757	PHASE 1	0.0527	HAUL1	0.03466	HAUL2
ANNUAL	R583	550737.48	4164371.07	550737.484164371.07	0.0755	PHASE 1	0.0561	HAUL1	0.03291	HAUL2
ANNUAL	R584	550777.48	4164371.07	550777.484164371.07	0.0741	PHASE 1	0.0584	HAUL1	0.03255	HAUL2
ANNUAL	R585	550697.48	4164391.07	550697.484164391.07	0.0823	PHASE 1	0.0570	HAUL1	0.03786	HAUL2
ANNUAL	R586	550737.48	4164391.07	550737.484164391.07	0.0824	PHASE 1	0.0610	HAUL1	0.0359	HAUL2
ANNUAL	R587	550777.48	4164391.07	550777.484164391.07	0.0811	PHASE 1	0.0637	HAUL1	0.03566	HAUL2
ANNUAL	R588	550817.48	4164391.07	550817.484164391.07	0.0793	PHASE 1	0.0660	HAUL1	0.03681	HAUL2
ANNUAL	R589	550737.48	4164411.07	550737.484164411.07	0.0903	PHASE 1	0.0667	HAUL1	0.0394	HAUL2
ANNUAL	R590	550777.48	4164411.07	550777.484164411.07	0.0893	PHASE 1	0.0700	HAUL1	0.03937	HAUL2
ANNUAL	R591	550817.48	4164411.07	550817.484164411.07	0.0877	PHASE 1	0.0728	HAUL1	0.04092	HAUL2
ANNUAL	R592	550797.48	4164431.07	550797.484164431.07	0.0982	PHASE 1	0.0792	HAUL1	0.04478	HAUL2
ANNUAL	R593	550857.48	4164431.07	550857.484164431.07	0.0962	PHASE 1	0.0848	HAUL1	0.04821	HAUL2
ANNUAL	R594	550837.48	4164471.07	550837.484164471.07	0.1239	PHASE 1	0.1073	HAUL1	0.06122	HAUL2
ANNUAL	R595	551065.12	4165571.04	551065.124165571.04	0.0286	PHASE 1	0.0650	HAUL1	0.02452	HAUL2
ANNUAL	R596	551065.12	4165591.04	551065.124165591.04	0.0275	PHASE 1	0.0611	HAUL1	0.02328	HAUL2

Health Risk - Dose and Risk Factors and Values

Dose factors

Dose factors for calc	Construction	3rd trimester					source
		3rd trimester	0-2	2-9	10-30	16-70	
Daily Breath Rate (L/kg-day)	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,112-04	dose factors for lookup in risk calcs
	Recreational	8,576-06	4,296-05	2,296-05	8,576-06	8,216-06	dose factors for lookup in risk calcs
	School	2,946-05	1,486-04	6,211-05	2,946-05	2,846-05	dose factors for lookup in risk calcs
	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for 2-9 per BAAQMD guidance
	Recreational	240	1200	640	240	230	OEHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SNUAPCO's draft guidance
A	School	240	1200	520	240	230	BAAQMD guidance - 95th percentile
	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	Recreational	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 3 years
	School	0.12	0.12	0.12	0.12	0.12	BAAQMD Guidance - 180 days/yr, 6 hours/day
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		1.00	1.00	1.00	1.00	1.00	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Risk factors for calcs		Construction		Residential	1.10E+01	11.00	3.90E+00	1.10E+00	1.10E+00	without ED, ED/AT calculation in risk calc
		Recreational	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	
		school	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	
CPF, DPM (mg/kg-day) ¹		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	OEHA 2015, Table 7.1
Average Age Sensitivity Factor		10	10	3	1	1	1	1	1	OEHA 2015, Table 8.3
AT, Average Time (days)		70	70	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAM		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	OEHA 2015, Table 8.4: Use FAM = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)		see ED calculation sheet								
Chronic Inhalation Reference Exposure Level, respiratory, DPM		5								

http://www.baaqmd.gov/?media/files/planning-and-research/rules-and-reg/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Utilized rate reasoning, see Section 3.9.2 of CAPCOA's HRA Guide.

An alternative approach is applying utilized emission rate and summation concepts, which drastically reduce the computational time for large multiple pollutant projects.

All chemical concentration levels vary linearly with their source release rate

This concentration at the receptor can then be multiplied by the actual rates (actual g/s (x) utilized 1 g/s rates)

DPM HRA Factors and values - Operations

Dose factors

Factors for calcs -->	Construction	3rd trimester					source
		Existing Student	2,49E-03	1,33E-03	4,97E-04	4,76E-04	dose factors for lookup in risk calcs
Daily Breath Rate (L/kg-day)	New Student	4,97E-04	2,49E-03	1,33E-03	4,97E-04	4,76E-04	dose factors for lookup in risk calcs
	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,112-04	
	Offsite Student	4,97E-04	2,49E-03	1,33E-03	4,97E-04	4,76E-04	
	Residential	361	1090	631	261	233	
	School	240	1200	640	240	230	
A	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	School	0.49	0.49	0.49	0.49	0.49	180 days/yr
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		4.20	4.20	4.20	4.20	4.20	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Factors for calcs -->		Existing Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		New Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		Offsite Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		Residential	3.93E-02	3.14E-01	0.00E+00	2.20E-01	0.00E+00	
CPF, DPM (mg/kg-day) ¹			1.1	1.1	1.1	1.1	1	OEIHA 2015, Table 7.1
Average Age Sensitivity Factor			10	10	3	1	1	OEIHA 2015, Table 8.3
AT, Average Time (days)			70	70	70	70	70	Averaging time for lifetime cancer risk
FAH			1.00	1.00	1.00	1.00	1.00	OEIHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10 ⁻⁶ (greater) cancer risk isopleth
ED, Exposure Duration (years)								
Buses		New Wilson/Central Students			4.00			Grades 1-8; ages 6-13
		Residential	0.25	2.00		14.00		Equation 8.2.4.8, OEIHA 2015; 30 years total
Roadway		New Wilson/Central Students			4.00			Equation 8.2.4.8, OEIHA 2015
		Residential						Equation 8.2.4.8, OEIHA 2015; 30 years total

1hr to annual

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Project-Level Unmitigated MEI Cancer and Non-Cancer (HI) during Construction

Receptor	Increased Cancer Risk (per million)	Non-Cancer (HI)
Residential	9.8	0.02
BAAQMD Threshold	10	1
Exceed BAAQMD Threshold?	No	No

										1	2	3	4	5	6	7	8	9	10	11
Period	ID	X	Y	concat	Concentration [ug/m³]	PHASE	Concentration [ug/m³]	Haul1	Concentration [ug/m³]	Haul2	Concentration [ug/m³]	Building	Concentration [ug/m³]	Building						
ANNUAL	R1	550876.81	416431.7	550876.81416431.7	0.0677	PHASE 1	0.0523	HAUL1	0.0296	HAUL2	0.0305									
ANNUAL	R2	550896.81	416435.7	550896.81416435.7	0.0615	PHASE 1	0.0574	HAUL1	0.03305	HAUL2										
ANNUAL	R3	550876.81	416437.7	550876.81416437.7	0.0690	PHASE 1	0.0625	HAUL1	0.03564	HAUL2										
ANNUAL	R4	550936.81	416437.7	550936.81416437.7	0.0658	PHASE 1	0.0637	HAUL1	0.03759	HAUL2										
ANNUAL	R5	550876.81	416439.7	550876.81416439.7	0.0764	PHASE 1	0.0691	HAUL1	0.03946	HAUL2										
ANNUAL	R6	550916.81	416439.7	550916.81416439.7	0.0743	PHASE 1	0.0703	HAUL1	0.0409	HAUL2										
ANNUAL	R7	550956.81	416439.7	550956.81416439.7	0.0735	PHASE 1	0.0715	HAUL1	0.04188	HAUL2										
ANNUAL	R8	550996.81	416439.7	550996.81416439.7	0.0713	PHASE 1	0.0710	HAUL1	0.04238	HAUL2										
ANNUAL	R9	551036.81	416439.7	551036.81416439.7	0.0710	PHASE 1	0.0709	HAUL1	0.04247	HAUL2										
ANNUAL	R10	550896.81	416441.7	550896.81416441.7	0.0842	PHASE 1	0.0779	HAUL1	0.04475	HAUL2										
ANNUAL	R11	550936.81	416441.7	550936.81416441.7	0.0822	PHASE 1	0.0791	HAUL1	0.04585	HAUL2										
ANNUAL	R12	550976.81	416441.7	550976.81416441.7	0.0806	PHASE 1	0.0795	HAUL1	0.04635	HAUL2										
ANNUAL	R13	551016.81	416441.7	551016.81416441.7	0.0798	PHASE 1	0.0794	HAUL1	0.04631	HAUL2										
ANNUAL	R14	551056.81	416441.7	551056.81416441.7	0.0798	PHASE 1	0.0791	HAUL1	0.04586	HAUL2										
ANNUAL	R15	550876.81	416443.7	550876.81416443.7	0.0958	PHASE 1	0.0866	HAUL1	0.0493	HAUL2										
ANNUAL	R16	550916.81	416443.7	550916.81416443.7	0.0939	PHASE 1	0.0887	HAUL1	0.05056	HAUL2										
ANNUAL	R17	550956.81	416443.7	550956.81416443.7	0.0919	PHASE 1	0.0896	HAUL1	0.05101	HAUL2										
ANNUAL	R18	550996.81	416443.7	550996.81416443.7	0.0905	PHASE 1	0.0890	HAUL1	0.0508	HAUL2										
ANNUAL	R19	551036.81	416443.7	551036.81416443.7	0.0899	PHASE 1	0.0892	HAUL1	0.05009	HAUL2										
ANNUAL	R20	551076.81	416443.7	551076.81416443.7	0.0901	PHASE 1	0.0884	HAUL1	0.04903	HAUL2										
ANNUAL	R21	551116.81	416443.7	551116.81416443.7	0.0905	PHASE 1	0.0873	HAUL1	0.04773	HAUL2										
ANNUAL	R22	550896.81	416445.7	550896.81416445.7	0.1077	PHASE 1	0.1001	HAUL1	0.05621	HAUL2										
ANNUAL	R23	550936.81	416445.7	550936.81416445.7	0.1096	PHASE 1	0.1056	HAUL1	0.05657	HAUL2										
ANNUAL	R24	550976.81	416445.7	550976.81416445.7	0.1036	PHASE 1	0.1021	HAUL1	0.05609	HAUL2										
ANNUAL	R25	551016.81	416445.7	551016.81416445.7	0.1023	PHASE 1	0.1016	HAUL1	0.05502	HAUL2										
ANNUAL	R26	551056.81	416445.7	551056.81416445.7	0.1038	PHASE 1	0.1005	HAUL1	0.05356	HAUL2										
ANNUAL	R27	551096.81	416445.7	551096.81416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05186	HAUL2										
ANNUAL	R28	551136.81	416445.7	551136.81416445.7	0.1016	PHASE 1	0.0986	HAUL1	0.05006	HAUL2										
ANNUAL	R29	550876.81	416447.7	550876.81416447.7	0.1241	PHASE 1	0.1241	HAUL1	0.06131	HAUL2										
ANNUAL	R30	550936.81	416447.7	550936.81416447.7	0.1211	PHASE 1	0.1174	HAUL1	0.06297	HAUL2										
ANNUAL	R31	550976.81	416447.7	550976.81416447.7	0.1186	PHASE 1	0.1174	HAUL1	0.06168	HAUL2										
ANNUAL	R32	551036.81	416447.7	551036.81416447.7	0.1161	PHASE 1	0.1154	HAUL1	0.05882	HAUL2										
ANNUAL	R33	551076.81	416447.7	551076.81416447.7	0.1153	PHASE 1	0.1132	HAUL1	0.0566	HAUL2										
ANNUAL	R34	551116.81	416447.7	551116.81416447.7	0.1185	PHASE 1	0.1103	HAUL1	0.0543	HAUL2										
ANNUAL	R35	551156.81	416447.7	551156.81416447.7	0.1134	PHASE 1	0.1064	HAUL1	0.05201	HAUL2										
ANNUAL	R36	550916.81	416449.7	550916.81416449.7	0.1414	PHASE 1	0.1364	HAUL1	0.07101	HAUL2										
ANNUAL	R37	550976.81	416449.7	550976.81416449.7	0.1367	PHASE 1	0.1364	HAUL1	0.06773	HAUL2										
ANNUAL	R38	551016.81	416449.7	551016.81416449.7	0.1340	PHASE 1	0.1342	HAUL1	0.06497	HAUL2										
ANNUAL	R39	551096.81	416449.7	551096.81416449.7	0.1302	PHASE 1	0.1271	HAUL1	0.05913	HAUL2										
ANNUAL	R40	551136.81	416449.7	551136.81416449.7	0.1281	PHASE 1	0.1281	HAUL1	0.05629	HAUL2										
ANNUAL	R41	550876.81	416455.7	550876.81416455.7	0.0626	PHASE 1	0.0570	HAUL1	0.03239	HAUL2										
ANNUAL	R42	550936.81	416455.7	550936.81416455.7	0.0594	PHASE 1	0.0578	HAUL1	0.03423	HAUL2										
ANNUAL	R43	550896.81	416437.7	550896.81416437.7	0.0678	PHASE 1	0.0630	HAUL1	0.03636	HAUL2										
ANNUAL	R44	550956.81	416437.7	550956.81416437.7	0.0650	PHASE 1	0.0638	HAUL1	0.03808	HAUL2										
ANNUAL	R45	550896.81	416439.7	550896.81416439.7	0.0753	PHASE 1	0.0698	HAUL1	0.04023	HAUL2										
ANNUAL	R46	550936.81	416439.7	550936.81416439.7	0.0733	PHASE 1	0.0707	HAUL1	0.04145	HAUL2										
ANNUAL	R47	550976.81	416439.7	550976.81416439.7	0.0718	PHASE 1	0.0710	HAUL1	0.04219	HAUL2										
ANNUAL	R48	551016.81	416439.7	551016.81416439.7	0.0711	PHASE 1	0.0710	HAUL1	0.04247	HAUL2										
ANNUAL	R49	550876.81	416441.7	550876.81416441.7	0.0853	PHASE 1	0.0770	HAUL1	0.04396	HAUL2										
ANNUAL	R50	550916.81	416441.7	550916.81416441.7	0.0832	PHASE 1	0.0786	HAUL1	0.04538	HAUL2										
ANNUAL	R51	550956.81	416441.7	550956.81416441.7	0.0813	PHASE 1	0.0794	HAUL1	0.04513	HAUL2										
ANNUAL	R52	550996.81	416441.7	550996.81416441.7	0.0801	PHASE 1	0.0795	HAUL1	0.04639	HAUL2										
ANNUAL	R53	551036.81	416441.7	551036.81416441.7	0.0797	PHASE 1	0.0793	HAUL1	0.04613	HAUL2										
ANNUAL	R54	551076.81	416441.7	551076.81416441.7	0.0801	PHASE 1	0.0788	HAUL1	0.04551	HAUL2										
ANNUAL	R55	550896.81	416443.7	550896.81416443.7	0.0949	PHASE 1	0.0878	HAUL1	0.05003	HAUL2										
ANNUAL	R56	550936.81	416443.7	550936.81416443.7	0.0928	PHASE 1	0.0893	HAUL1	0.05088	HAUL2										
ANNUAL	R57	550976.81	416443.7	550976.81416443.7	0.0911	PHASE 1	0.0897	HAUL1	0.05009	HAUL2										
ANNUAL	R58	551016.81	416443.7	551016.81416443.7	0.0901	PHASE 1	0.0895	HAUL1	0.0505	HAUL2										
ANNUAL	R59	551056.81	416443.7	551056.81416443.7	0.0899	PHASE 1	0.0889	HAUL1	0.0496	HAUL2										
ANNUAL	R60	551096.81	416443.7	551096.81416443.7	0.0903	PHASE 1	0.0879	HAUL1	0.0484	HAUL2										
ANNUAL	R61	550876.81	416445.7	550876.81416445.7	0.1085	PHASE 1	0.0985	HAUL1	0.05563	HAUL2										
ANNUAL	R62	550916.81	416445.7	550916.81416445.7	0.1067	PHASE 1	0.1067	HAUL1	0.05651	HAUL2										
ANNUAL	R63	550956.81	416445.7	550956.81416445.7	0.1045	PHASE 1	0.1022	HAUL1	0.05642	HAUL2										
ANNUAL	R64	550996.81	416445.7	550996.81416445.7	0.1028	PHASE 1	0.1019	HAUL1	0.05562	HAUL2										
ANNUAL	R65	551036.81	416445.7	551036.81416445.7	0.1019	PHASE 1	0.1011	HAUL1	0.05433	HAUL2										
ANNUAL	R66	551076.81	416445.7	551076.81416445.7	0.1017	PHASE 1	0.0998	HAUL1	0.05274	HAUL2										
ANNUAL	R67	551116.81	416445.7	551116.81416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05097	HAUL2										
ANNUAL	R68	551156.81	416445.7	551156.81416445.7	0.1051	PHASE 1	0.0951	HAUL1	0.04913	HAUL2										
ANNUAL	R69	550916.81	416447.7	550916.81416447.7	0.1223	PHASE 1	0.1168	HAUL1	0.06331	HAUL2										
ANNUAL	R70	550956.81	416447.7	550956.81416447.7	0.1198	PHASE 1	0.1177	HAUL1	0.06242	HAUL2										
ANNUAL	R71	550996.81	416447.7	550996.81416447.7	0.1176	PHASE 1	0.1169	HAUL1	0.06082	HAUL2										
ANNUAL	R72	551056.81	416447.7	551056.81416447.7	0.1157	PHASE 1	0.1144	HAUL1	0.05773	HAUL2										
ANNUAL	R73	551096.81	416447.7	551096.81416447.7	0.1149	PHASE 1	0.1149	HAUL1	0.05545	HAUL2										
ANNUAL	R74	551136.81	416447.7	551136.81416447.7	0.1140	PHASE 1	0.1085	HAUL1	0.05319	HAUL2										
ANNUAL	R75	551176.81	416447.7	551176.81416447.7	0.1125	PHASE 1	0.1041	HAUL1	0.05087	HAUL2										
ANNUAL	R76	550956.81	416449.7	550956.81416449.7	0.1383	PHASE 1	0.1370	HAUL1	0.06898	HAUL2										
ANNUAL	R77	550996.81	416449.7	550996.81416449.7	0.1353	PHASE 1	0.1354	HAUL1	0.06638	HAUL2										
ANNUAL	R78	551076.81	416449.7	551076.81416449.7	0.1311	PHASE 1	0.1292	HAUL1	0.06059	HAUL2										
ANNUAL	R79	551116.81	416449.7	551116.81416449.7	0.1291	PHASE 1	0.1291	HAUL1	0.05769	HAUL2										
ANNUAL	R80	551156.81	416449.7	551156.81416449.7	0.1268	PHASE 1	0.1194	HAUL1	0.05491	HAUL2										
ANNUAL	R81	551176.81	416449.7	551176.81416449.7	0.1253	PHASE 1	0.1163	HAUL1	0.05356	HAUL2										
ANNUAL	R82	550956.81	416451.7	550956.81416451.7	0.1610	PHASE 1	0.1614	HAUL1	0.07607	HAUL2										
ANNUAL	R83	550996.81	416451.7	550996.81416451.7	0.1566	PHASE 1	0.1583	HAUL1	0.07224	HAUL2										
ANNUAL	R84	551036.81	416451.7	551036.81416451.7	0.1529	PHASE 1	0.1537	HAUL1	0.06889	HAUL2										
ANNUAL	R85	551076.81	416451.7	551076.81416451.7	0.1461															

ANNUAL	R138	551236.81	4164551.7	551236.814164551.7	0.1563	PHASE 1	0.1423	HAUL1	0.05587	HAUL2
ANNUAL	R139	551076.81	4164571.7	551076.814164571.7	0.2261	PHASE 1	0.2304	HAUL1	0.0768	HAUL2
ANNUAL	R140	551116.81	4164571.7	551116.814164571.7	0.2107	PHASE 1	0.2124	HAUL1	0.2207	HAUL2
ANNUAL	R141	551176.81	4164571.7	551176.814164571.7	0.1915	PHASE 1	0.1826	HAUL1	0.06395	HAUL2
ANNUAL	R142	551216.81	4164571.7	551216.814164571.7	0.1773	PHASE 1	0.1650	HAUL1	0.05974	HAUL2
ANNUAL	R143	551276.81	4164571.7	551276.814164571.7	0.1570	PHASE 1	0.1416	HAUL1	0.05421	HAUL2
ANNUAL	R144	551176.81	4164591.7	551176.814164591.7	0.2121	PHASE 1	0.2043	HAUL1	0.06632	HAUL2
ANNUAL	R145	551216.81	4164591.7	551216.814164591.7	0.1937	PHASE 1	0.1825	HAUL1	0.06172	HAUL2
ANNUAL	R146	551256.81	4164591.7	551256.814164591.7	0.1761	PHASE 1	0.1761	HAUL1	0.05792	HAUL2
ANNUAL	R147	551156.81	4164611.7	551156.814164611.7	0.2464	PHASE 1	0.2434	HAUL1	0.07124	HAUL2
ANNUAL	R148	551196.81	4164611.7	551196.814164611.7	0.2222	PHASE 1	0.2146	HAUL1	0.06597	HAUL2
ANNUAL	R149	551256.81	4164611.7	551256.814164611.7	0.1899	PHASE 1	0.1787	HAUL1	0.05918	HAUL2
ANNUAL	R150	551176.81	4164631.7	551176.814164631.7	0.2574	PHASE 1	0.2550	HAUL1	0.07057	HAUL2
ANNUAL	R151	551236.81	4164631.7	551236.814164631.7	0.2035	PHASE 1	0.2154	HAUL1	0.06286	HAUL2
ANNUAL	R152	551276.81	4164631.7	551276.814164631.7	0.1921	PHASE 1	0.1839	HAUL1	0.05848	HAUL2
ANNUAL	R153	551276.81	4164651.7	551276.814164651.7	0.2035	PHASE 1	0.2006	HAUL1	0.05966	HAUL2
ANNUAL	R154	550384.79	4164911.52	550384.794164911.52	0.0577	PHASE 1	0.0239	HAUL1	0.23009	HAUL2
ANNUAL	R155	550164.79	4164951.52	550164.794164951.52	0.0245	PHASE 1	0.0131	HAUL1	0.28728	HAUL2
ANNUAL	R156	550405.01	4165031.9	550405.014165031.9	0.0591	PHASE 1	0.0245	HAUL1	0.41312	HAUL2
ANNUAL	R157	550465.01	4165031.9	550465.014165031.9	0.0935	PHASE 1	0.0295	HAUL1	0.72657	HAUL2
ANNUAL	R158	550545.01	4165031.9	550545.014165031.9	0.1201	PHASE 1	0.0384	HAUL1	2.22488	HAUL2
ANNUAL	R159	550605.01	4165031.9	550605.014165031.9	0.1650	PHASE 1	0.0469	HAUL1	0.68248	HAUL2
ANNUAL	R160	550645.01	4165031.9	550645.014165031.9	0.1986	PHASE 1	0.0535	HAUL1	0.47512	HAUL2
ANNUAL	R161	550665.01	4165031.9	550665.014165031.9	0.2152	PHASE 1	0.0569	HAUL1	0.41111	HAUL2
ANNUAL	R162	550705.01	4165031.9	550705.014165031.9	0.2453	PHASE 1	0.0642	HAUL1	0.32044	HAUL2
ANNUAL	R163	550405.01	4165051.9	550405.014165051.9	0.0581	PHASE 1	0.0243	HAUL1	0.45625	HAUL2
ANNUAL	R164	550465.01	4165051.9	550465.014165051.9	0.0765	PHASE 1	0.0291	HAUL1	0.87658	HAUL2
ANNUAL	R165	550545.01	4165051.9	550545.014165051.9	0.1136	PHASE 1	0.0375	HAUL1	1.60752	HAUL2
ANNUAL	R166	550585.01	4165051.9	550585.014165051.9	0.1383	PHASE 1	0.0427	HAUL1	0.77403	HAUL2
ANNUAL	R167	550665.01	4165051.9	550665.014165051.9	0.1924	PHASE 1	0.0548	HAUL1	0.38766	HAUL2
ANNUAL	R168	550705.01	4165051.9	550705.014165051.9	0.2157	PHASE 1	0.0615	HAUL1	0.30509	HAUL2
ANNUAL	R169	550745.01	4165051.9	550745.014165051.9	0.2324	PHASE 1	0.0686	HAUL1	0.24847	HAUL2
ANNUAL	R170	550545.01	4165071.9	550545.014165071.9	0.1076	PHASE 1	0.0367	HAUL1	1.26849	HAUL2
ANNUAL	R171	550585.01	4165071.9	550585.014165071.9	0.1288	PHASE 1	0.0416	HAUL1	0.69455	HAUL2
ANNUAL	R172	550685.01	4165071.9	550685.014165071.9	0.1832	PHASE 1	0.0560	HAUL1	0.32449	HAUL2
ANNUAL	R173	550725.01	4165071.9	550725.014165071.9	0.1990	PHASE 1	0.0624	HAUL1	0.26186	HAUL2
ANNUAL	R174	550585.01	4165091.9	550585.014165091.9	0.0935	PHASE 1	0.0339	HAUL1	1.64006	HAUL2
ANNUAL	R175	550565.01	4165091.9	550565.014165091.9	0.1109	PHASE 1	0.0382	HAUL1	0.78735	HAUL2
ANNUAL	R176	550725.01	4165091.9	550725.014165091.9	0.1777	PHASE 1	0.0599	HAUL1	0.24959	HAUL2
ANNUAL	R177	550525.01	4165111.9	550525.014165111.9	0.0891	PHASE 1	0.0332	HAUL1	1.2922	HAUL2
ANNUAL	R178	550565.01	4165111.9	550565.014165111.9	0.1044	PHASE 1	0.0373	HAUL1	0.70539	HAUL2
ANNUAL	R179	550531.9	4165131.9	550531.94165131.9	0.0787	PHASE 1	0.0281	HAUL1	1.65918	HAUL2
ANNUAL	R180	550545.01	4165131.9	550545.014165131.9	0.0916	PHASE 1	0.0345	HAUL1	0.79911	HAUL2
ANNUAL	R181	550585.01	4165131.9	550585.014165131.9	0.1054	PHASE 1	0.0386	HAUL1	0.53169	HAUL2
ANNUAL	R182	550625.01	4165131.9	550625.014165131.9	0.1193	PHASE 1	0.0430	HAUL1	0.39366	HAUL2
ANNUAL	R183	550705.01	4165131.9	550705.014165131.9	0.1417	PHASE 1	0.0529	HAUL1	0.24813	HAUL2
ANNUAL	R184	550505.01	4165151.9	550505.014165151.9	0.0755	PHASE 1	0.0303	HAUL1	1.31832	HAUL2
ANNUAL	R185	550545.01	4165151.9	550545.014165151.9	0.0869	PHASE 1	0.0338	HAUL1	0.7135	HAUL2
ANNUAL	R186	550605.01	4165151.9	550605.014165151.9	0.1050	PHASE 1	0.0397	HAUL1	0.42117	HAUL2
ANNUAL	R187	550665.01	4165151.9	550665.014165151.9	0.1215	PHASE 1	0.0464	HAUL1	0.28852	HAUL2
ANNUAL	R188	550705.01	4165151.9	550705.014165151.9	0.1297	PHASE 1	0.0512	HAUL1	0.23426	HAUL2
ANNUAL	R189	550505.01	4165171.9	550505.014165171.9	0.0723	PHASE 1	0.0298	HAUL1	1.09069	HAUL2
ANNUAL	R190	550545.01	4165171.9	550545.014165171.9	0.0825	PHASE 1	0.0351	HAUL1	0.64183	HAUL2
ANNUAL	R191	550605.01	4165171.9	550605.014165171.9	0.0984	PHASE 1	0.0387	HAUL1	0.39005	HAUL2
ANNUAL	R192	550665.01	4165171.9	550665.014165171.9	0.1124	PHASE 1	0.0450	HAUL1	0.27011	HAUL2
ANNUAL	R193	550705.01	4165171.9	550705.014165171.9	0.1193	PHASE 1	0.0495	HAUL1	0.22039	HAUL2
ANNUAL	R194	550545.01	4165191.9	550545.014165191.9	0.0785	PHASE 1	0.0324	HAUL1	0.57868	HAUL2
ANNUAL	R195	550605.01	4165191.9	550605.014165191.9	0.0923	PHASE 1	0.0378	HAUL1	0.35974	HAUL2
ANNUAL	R196	550645.01	4165191.9	550645.014165191.9	0.1007	PHASE 1	0.0416	HAUL1	0.2381	HAUL2
ANNUAL	R197	550685.01	4165191.9	550685.014165191.9	0.1075	PHASE 1	0.0458	HAUL1	0.2273	HAUL2
ANNUAL	R198	550585.01	4165211.9	550585.014165211.9	0.0829	PHASE 1	0.0351	HAUL1	0.37808	HAUL2
ANNUAL	R199	550625.01	4165211.9	550625.014165211.9	0.0906	PHASE 1	0.0386	HAUL1	0.29137	HAUL2
ANNUAL	R200	550665.01	4165211.9	550665.014165211.9	0.0972	PHASE 1	0.0424	HAUL1	0.23358	HAUL2
ANNUAL	R201	550685.01	4165031.9	550685.014165031.9	0.2309	PHASE 1	0.2309	HAUL1	0.3609	HAUL2
ANNUAL	R202	550725.01	4165031.9	550725.014165031.9	0.2578	PHASE 1	0.0680	HAUL1	0.28719	HAUL2
ANNUAL	R203	550445.01	4165051.9	550445.014165051.9	0.0696	PHASE 1	0.0274	HAUL1	0.64461	HAUL2
ANNUAL	R204	550485.01	4165051.9	550485.014165051.9	0.0842	PHASE 1	0.0310	HAUL1	1.47456	HAUL2
ANNUAL	R205	550565.01	4165051.9	550565.014165051.9	0.1255	PHASE 1	0.0400	HAUL1	1.03698	HAUL2
ANNUAL	R206	550645.01	4165051.9	550645.014165051.9	0.1792	PHASE 1	0.0516	HAUL1	0.44477	HAUL2
ANNUAL	R207	550685.01	4165051.9	550685.014165051.9	0.2047	PHASE 1	0.0541	HAUL1	0.34218	HAUL2
ANNUAL	R208	550725.01	4165051.9	550725.014165051.9	0.2251	PHASE 1	0.0650	HAUL1	0.27434	HAUL2
ANNUAL	R209	550525.01	4165071.9	550525.014165071.9	0.0980	PHASE 1	0.0345	HAUL1	2.26722	HAUL2
ANNUAL	R210	550565.01	4165071.9	550565.014165071.9	0.1179	PHASE 1	0.0391	HAUL1	0.89303	HAUL2
ANNUAL	R211	550605.01	4165071.9	550605.014165071.9	0.1401	PHASE 1	0.0442	HAUL1	0.56996	HAUL2
ANNUAL	R212	550705.01	4165071.9	550705.014165071.9	0.1918	PHASE 1	0.0591	HAUL1	0.28937	HAUL2
ANNUAL	R213	550745.01	4165071.9	550745.014165071.9	0.2047	PHASE 1	0.0657	HAUL1	0.23737	HAUL2
ANNUAL	R214	550545.01	4165091.9	550545.014165091.9	0.1019	PHASE 1	0.0360	HAUL1	1.05595	HAUL2
ANNUAL	R215	550585.01	4165091.9	550585.014165091.9	0.1202	PHASE 1	0.0406	HAUL1	0.63086	HAUL2
ANNUAL	R216	550505.01	4165111.9	550505.014165111.9	0.0821	PHASE 1	0.0314	HAUL1	2.31272	HAUL2
ANNUAL	R217	550545.01	4165111.9	550545.014165111.9	0.0966	PHASE 1	0.0352	HAUL1	0.9083	HAUL2
ANNUAL	R218	550585.01	4165111.9	550585.014165111.9	0.1095	PHASE 1	0.0415	HAUL1	0.57777	HAUL2
ANNUAL	R219	550525.01	4165131.9	550525.014165131.9	0.0850	PHASE 1	0.0326	HAUL1	1.07378	HAUL2
ANNUAL	R220	550565.01	4165131.9	550565.014165131.9	0.0984	PHASE 1	0.0365	HAUL1	0.63873	HAUL2
ANNUAL	R221	550605.01	4165131.9	550605.014165131.9	0.1124	PHASE 1	0.0408	HAUL1	0.4537	HAUL2
ANNUAL	R222	550685.01	4165131.9	550685.014165131.9	0.1371	PHASE 1	0.0503	HAUL1	0.27504	HAUL2
ANNUAL	R223	550485.01	4165151.9	550485.014165151.9	0.0702	PHASE 1	0.0287	HAUL1	2.36716	HAUL2
ANNUAL	R224	550525.01	4165151.9	550525.014165151.9	0.0811	PHASE 1	0.0320	HAUL1	0.92127	HAUL2
ANNUAL	R225	550565.01	4165151.9	550565.014165151.9	0.0929	PHASE 1	0.0357	HAUL1	0.58202	HAUL2
ANNUAL	R226	550625.01	4165151.9	550625.014165151.9	0.1109	PHASE 1	0.0419	HAUL1	0.36724	HAUL2
ANNUAL	R227	550685.01	4165151.9	550685.014165151.9	0.1259	PHASE 1	0.0487	HAUL1	0.25907	HAUL2
ANNUAL	R228	550485.01	4165171.9	550485.014165171.9	0.0675	PHASE 1	0.0282	HAUL1	1.70262	HAUL2
ANNUAL	R229	550525.01	4165171.9	550525.014165171.9	0.0773	PHASE 1	0.0314	HAUL1	0.80774	HAUL2
ANNUAL	R230	550585.01	4165171.9	550585.014165171.9	0.0932	PHASE 1	0.0368	HAUL1	0.45136	HAUL2
ANNUAL	R231	550625.01	4165171.9	550625.014165171.9	0.1034	PHASE 1	0.0407	HAUL1	0.34156	HAUL2
ANNUAL	R232	550685.01	4165171.9	5						

ANNUAL	R277	550865.45	4165372.15	550865.454165372.15	0.0605	PHASE 1	0.0524	HAUL1	0.0633	HAUL2
ANNUAL	R278	550405.6	4164911.75	550405.64164911.75	0.0641	PHASE 1	0.0256	HAUL1	0.24757	HAUL2
ANNUAL	R279	550405.6	4164931.75	550405.64164931.75	0.0631	PHASE 1	0.0265	HAUL1	0.24895	HAUL2
ANNUAL	R280	550465.6	4164931.75	550465.64164931.75	0.0890	PHASE 1	0.0314	HAUL1	0.38145	HAUL2
ANNUAL	R281	550625.01	4165231.9	550625.014165231.9	0.0851	PHASE 1	0.0376	HAUL1	0.26673	HAUL2
ANNUAL	R282	550665.01	4165231.9	550665.014165231.9	0.0908	PHASE 1	0.0413	HAUL1	0.21552	HAUL2
ANNUAL	R283	550645.01	4165251.9	550645.014165251.9	0.0827	PHASE 1	0.0384	HAUL1	0.21822	HAUL2
ANNUAL	R284	550685.01	4165251.9	550685.014165251.9	0.0870	PHASE 1	0.0420	HAUL1	0.18035	HAUL2
ANNUAL	R285	550925.45	4165192.15	550925.454165192.15	0.1130	PHASE 1	0.0319	HAUL1	0.09408	HAUL2
ANNUAL	R286	550965.45	4165192.15	550965.454165192.15	0.1109	PHASE 1	0.0945	HAUL1	0.08441	HAUL2
ANNUAL	R287	550905.45	4165212.15	550905.454165212.15	0.1044	PHASE 1	0.0754	HAUL1	0.09463	HAUL2
ANNUAL	R288	550945.45	4165212.15	550945.454165212.15	0.1024	PHASE 1	0.0852	HAUL1	0.08479	HAUL2
ANNUAL	R289	550985.45	4165212.15	550985.454165212.15	0.0991	PHASE 1	0.0984	HAUL1	0.07649	HAUL2
ANNUAL	R290	551045.45	4165232.15	551045.454165232.15	0.0903	PHASE 1	0.0595	HAUL1	0.05621	HAUL2
ANNUAL	R291	550905.45	4165232.15	550905.454165232.15	0.0962	PHASE 1	0.0728	HAUL1	0.08967	HAUL2
ANNUAL	R292	550945.45	4165232.15	550945.454165232.15	0.0939	PHASE 1	0.0824	HAUL1	0.08056	HAUL2
ANNUAL	R293	550985.45	4165232.15	550985.454165232.15	0.0904	PHASE 1	0.0953	HAUL1	0.07285	HAUL2
ANNUAL	R294	551045.45	4165232.15	551045.454165232.15	0.0820	PHASE 1	0.1266	HAUL1	0.06334	HAUL2
ANNUAL	R295	550885.45	4165252.15	550885.454165252.15	0.0898	PHASE 1	0.0666	HAUL1	0.08955	HAUL2
ANNUAL	R296	550925.45	4165252.15	550925.454165252.15	0.0878	PHASE 1	0.0748	HAUL1	0.08039	HAUL2
ANNUAL	R297	550965.45	4165252.15	550965.454165252.15	0.0849	PHASE 1	0.0855	HAUL1	0.07266	HAUL2
ANNUAL	R298	551045.45	4165252.15	551045.454165252.15	0.0751	PHASE 1	0.1237	HAUL1	0.0604	HAUL2
ANNUAL	R299	551085.45	4165252.15	551085.454165252.15	0.0687	PHASE 1	0.1614	HAUL1	0.05551	HAUL2
ANNUAL	R300	550885.45	4165272.15	550885.454165272.15	0.0834	PHASE 1	0.0644	HAUL1	0.08431	HAUL2
ANNUAL	R301	550925.45	4165272.15	550925.454165272.15	0.0813	PHASE 1	0.0644	HAUL1	0.07593	HAUL2
ANNUAL	R302	551025.45	4165272.15	551025.454165272.15	0.0718	PHASE 1	0.0788	HAUL1	0.06503	HAUL2
ANNUAL	R303	551065.45	4165272.15	551065.454165272.15	0.0663	PHASE 1	0.1371	HAUL1	0.05515	HAUL2
ANNUAL	R304	551105.45	4165272.15	551105.454165272.15	0.0606	PHASE 1	0.1907	HAUL1	0.0509	HAUL2
ANNUAL	R305	550885.45	4165292.15	550885.454165292.15	0.0776	PHASE 1	0.0624	HAUL1	0.07919	HAUL2
ANNUAL	R306	550925.45	4165292.15	550925.454165292.15	0.0755	PHASE 1	0.0701	HAUL1	0.07157	HAUL2
ANNUAL	R307	551025.45	4165292.15	551025.454165292.15	0.0664	PHASE 1	0.1047	HAUL1	0.05597	HAUL2
ANNUAL	R308	551065.45	4165292.15	551065.454165292.15	0.0615	PHASE 1	0.1339	HAUL1	0.05248	HAUL2
ANNUAL	R309	550865.45	4165312.15	550865.454165312.15	0.0732	PHASE 1	0.0574	HAUL1	0.07811	HAUL2
ANNUAL	R310	550905.45	4165312.15	550905.454165312.15	0.0715	PHASE 1	0.0640	HAUL1	0.07064	HAUL2
ANNUAL	R311	550945.45	4165312.15	550945.454165312.15	0.0690	PHASE 1	0.0725	HAUL1	0.06428	HAUL2
ANNUAL	R312	551045.45	4165312.15	551045.454165312.15	0.0595	PHASE 1	0.1143	HAUL1	0.05187	HAUL2
ANNUAL	R313	550885.45	4165332.15	550885.454165332.15	0.0671	PHASE 1	0.0686	HAUL1	0.06945	HAUL2
ANNUAL	R314	550925.45	4165332.15	550925.454165332.15	0.0657	PHASE 1	0.0658	HAUL1	0.06325	HAUL2
ANNUAL	R315	551005.45	4165332.15	551005.454165332.15	0.0595	PHASE 1	0.0890	HAUL1	0.05323	HAUL2
ANNUAL	R316	550945.45	4165352.15	550945.454165352.15	0.0603	PHASE 1	0.0679	HAUL1	0.05683	HAUL2
ANNUAL	R317	550885.45	4165372.15	550885.454165372.15	0.0597	PHASE 1	0.0551	HAUL1	0.06055	HAUL2
ANNUAL	R318	550425.6	4164911.75	550425.64164911.75	0.0715	PHASE 1	0.0715	HAUL1	0.27014	HAUL2
ANNUAL	R319	550425.6	4164931.75	550425.64164931.75	0.0705	PHASE 1	0.0272	HAUL1	0.29376	HAUL2
ANNUAL	R320	550485.6	4164931.75	550485.64164931.75	0.1012	PHASE 1	0.0338	HAUL1	0.46001	HAUL2
ANNUAL	R321	550505.6	4164931.75	550505.64164931.75	0.1161	PHASE 1	0.0365	HAUL1	0.58991	HAUL2
ANNUAL	R322	550425.6	4164951.75	550425.64164951.75	0.0695	PHASE 1	0.0270	HAUL1	0.32027	HAUL2
ANNUAL	R323	550525.6	4164951.75	550525.64164951.75	0.1293	PHASE 1	0.0388	HAUL1	1.07899	HAUL2
ANNUAL	R324	550505.6	4164971.75	550505.64164971.75	0.1084	PHASE 1	0.0354	HAUL1	0.85059	HAUL2
ANNUAL	R325	550585.6	4164971.75	550585.64164971.75	0.1901	PHASE 1	0.0479	HAUL1	1.53006	HAUL2
ANNUAL	R326	550625.6	4164971.75	550625.64164971.75	0.2525	PHASE 1	0.0559	HAUL1	0.74118	HAUL2
ANNUAL	R327	550505.6	4164991.75	550505.64164991.75	0.1048	PHASE 1	0.0348	HAUL1	1.08584	HAUL2
ANNUAL	R328	550585.6	4164991.75	550585.64164991.75	0.1748	PHASE 1	0.0465	HAUL1	1.21115	HAUL2
ANNUAL	R329	550625.6	4164991.75	550625.64164991.75	0.2245	PHASE 1	0.0465	HAUL1	0.65597	HAUL2
ANNUAL	R330	550665.6	4164991.75	550665.64164991.75	0.2790	PHASE 1	0.0620	HAUL1	0.46402	HAUL2
ANNUAL	R331	550585.6	4165011.75	550585.64165011.75	0.1614	PHASE 1	0.0452	HAUL1	1.01008	HAUL2
ANNUAL	R332	550625.6	4165011.75	550625.64165011.75	0.2015	PHASE 1	0.0520	HAUL1	0.60639	HAUL2
ANNUAL	R333	550665.6	4165011.75	550665.64165011.75	0.2439	PHASE 1	0.0594	HAUL1	0.43528	HAUL2
ANNUAL	R334	550705.6	4165011.75	550705.64165011.75	0.2836	PHASE 1	0.0673	HAUL1	0.33563	HAUL2
ANNUAL	R335	551378.51	4165172.16	551378.514165172.16	0.0534	PHASE 1	0.0534	HAUL1	0.05816	HAUL2
ANNUAL	R336	551418.51	4165172.16	551418.514165172.16	0.0498	PHASE 1	0.4331	HAUL1	0.03582	HAUL2
ANNUAL	R337	551338.51	4165192.16	551338.514165192.16	0.0524	PHASE 1	1.0191	HAUL1	0.09399	HAUL2
ANNUAL	R338	551378.51	4165192.16	551378.514165192.16	0.0490	PHASE 1	0.5784	HAUL1	0.03695	HAUL2
ANNUAL	R339	551418.51	4165192.16	551418.514165192.16	0.0459	PHASE 1	0.3960	HAUL1	0.03474	HAUL2
ANNUAL	R340	551338.51	4165212.16	551338.514165212.16	0.0481	PHASE 1	0.6115	HAUL1	0.03805	HAUL2
ANNUAL	R341	551378.51	4165212.16	551378.514165212.16	0.0451	PHASE 1	0.5183	HAUL1	0.03576	HAUL2
ANNUAL	R342	551418.51	4165212.16	551418.514165212.16	0.0424	PHASE 1	0.3619	HAUL1	0.03365	HAUL2
ANNUAL	R343	551358.51	4165232.16	551358.514165232.16	0.0430	PHASE 1	0.5734	HAUL1	0.03564	HAUL2
ANNUAL	R344	551398.51	4165232.16	551398.514165232.16	0.0405	PHASE 1	0.3880	HAUL1	0.03355	HAUL2
ANNUAL	R345	551378.51	4165252.16	551378.514165252.16	0.0387	PHASE 1	0.4167	HAUL1	0.03338	HAUL2
ANNUAL	R346	551378.51	4165272.16	551378.514165272.16	0.0361	PHASE 1	0.0361	HAUL1	0.37220	HAUL2
ANNUAL	R347	551498.28	4164852.3	551498.284164852.3	0.1089	PHASE 1	0.2273	HAUL1	0.04235	HAUL2
ANNUAL	R348	551538.28	4164852.3	551538.284164852.3	0.0971	PHASE 1	0.2001	HAUL1	0.03978	HAUL2
ANNUAL	R349	551458.28	4164872.3	551458.284164872.3	0.1199	PHASE 1	0.2847	HAUL1	0.04409	HAUL2
ANNUAL	R350	551498.28	4164872.3	551498.284164872.3	0.1059	PHASE 1	0.2453	HAUL1	0.04206	HAUL2
ANNUAL	R351	551538.28	4164872.3	551538.284164872.3	0.0945	PHASE 1	0.2129	HAUL1	0.0395	HAUL2
ANNUAL	R352	551458.28	4164892.3	551458.284164892.3	0.1160	PHASE 1	0.3133	HAUL1	0.04533	HAUL2
ANNUAL	R353	551498.28	4164892.3	551498.284164892.3	0.1026	PHASE 1	0.2648	HAUL1	0.0417	HAUL2
ANNUAL	R354	551538.28	4164892.3	551538.284164892.3	0.0916	PHASE 1	0.2260	HAUL1	0.03917	HAUL2
ANNUAL	R355	551458.28	4164912.3	551458.284164912.3	0.1116	PHASE 1	0.3460	HAUL1	0.04405	HAUL2
ANNUAL	R356	551498.28	4164912.3	551498.284164912.3	0.0988	PHASE 1	0.2853	HAUL1	0.04128	HAUL2
ANNUAL	R357	551538.28	4164912.3	551538.284164912.3	0.0881	PHASE 1	0.2889	HAUL1	0.03978	HAUL2
ANNUAL	R358	551458.28	4164932.3	551458.284164932.3	0.1068	PHASE 1	0.3824	HAUL1	0.04353	HAUL2
ANNUAL	R359	551498.28	4164932.3	551498.284164932.3	0.0947	PHASE 1	0.3059	HAUL1	0.0408	HAUL2
ANNUAL	R360	551538.28	4164932.3	551538.284164932.3	0.0848	PHASE 1	0.2510	HAUL1	0.03833	HAUL2
ANNUAL	R361	550405.6	4164951.75	550405.64164951.75	0.0627	PHASE 1	0.0253	HAUL1	0.29073	HAUL2
ANNUAL	R362	550465.6	4164951.75	550465.64164951.75	0.0871	PHASE 1	0.0311	HAUL1	0.42593	HAUL2
ANNUAL	R363	550405.6	4164971.75	550405.64164971.75	0.0955	PHASE 1	0.0329	HAUL1	0.60529	HAUL2
ANNUAL	R364	550525.6	4164971.75	550525.64164971.75	0.1239	PHASE 1	0.0381	HAUL1	1.49118	HAUL2
ANNUAL	R365	550605.6	4164971.75	550605.64164971.75	0.2197	PHASE 1	0.0517	HAUL1	0.99222	HAUL2
ANNUAL	R366	550405.6	4164991.75	550405.64164991.75	0.0611	PHASE 1	0.0250	HAUL1	0.34455	HAUL2
ANNUAL	R367	550565.6	4164991.75	550565.64164991.75	0.1534	PHASE 1	0.0432	HAUL1	2.13871	HAUL2
ANNUAL	R368	550605.6	4164991.75	550605.64164991.75	0.1987	PHASE 1	0.1987	HAUL1	0.85555	HAUL2
ANNUAL	R369	550645.6	4164991.75	550645.64164991.75	0.2515	PHASE 1	0.0578	HAUL1	0.54701	HAUL2
ANNUAL	R370	550565.6	4165011.75	550565.64165011.75	0.1435	PHASE 1	0.0422	HAUL1	1.55596	HAUL2
ANNUAL	R371	550605.6	4165011.75	5506						

ANNUAL	R416	551358.28	4165072.3	551358.284165072.3	0.0890	PHASE 1	3.0291	HAUL1	0.04533	HAUL2
ANNUAL	R417	551398.28	4165072.3	551398.284165072.3	0.0798	PHASE 1	0.9762	HAUL1	0.04235	HAUL2
ANNUAL	R418	551438.28	4165072.3	551438.284165072.3	0.0721	PHASE 1	0.9725	HAUL1	0.03965	HAUL2
ANNUAL	R419	551358.28	4165092.3	551358.284165092.3	0.0808	PHASE 1	2.0353	HAUL1	0.0442	HAUL2
ANNUAL	R420	551398.28	4165092.3	551398.284165092.3	0.0732	PHASE 1	0.8337	HAUL1	0.04133	HAUL2
ANNUAL	R421	551438.28	4165092.3	551438.284165092.3	0.0666	PHASE 1	0.5241	HAUL1	0.03872	HAUL2
ANNUAL	R422	551338.28	4165112.3	551338.284165112.3	0.0770	PHASE 1	3.1266	HAUL1	0.04452	HAUL2
ANNUAL	R423	551378.28	4165112.3	551378.284165112.3	0.0701	PHASE 1	0.9843	HAUL1	0.04161	HAUL2
ANNUAL	R424	551418.28	4165112.3	551418.284165112.3	0.0641	PHASE 1	0.3779	HAUL1	0.03898	HAUL2
ANNUAL	R425	551458.28	4165112.3	551458.284165112.3	0.0588	PHASE 1	0.4048	HAUL1	0.03659	HAUL2
ANNUAL	R426	551358.28	4165132.3	551358.284165132.3	0.0666	PHASE 1	1.2097	HAUL1	0.04184	HAUL2
ANNUAL	R427	551398.28	4165132.3	551398.284165132.3	0.0613	PHASE 1	0.6454	HAUL1	0.03918	HAUL2
ANNUAL	R428	551438.28	4165132.3	551438.284165132.3	0.0566	PHASE 1	0.4373	HAUL1	0.03677	HAUL2
ANNUAL	R429	551338.28	4165152.3	551338.284165152.3	0.0630	PHASE 1	1.5691	HAUL1	0.041	HAUL2
ANNUAL	R430	551378.28	4165152.3	551378.284165152.3	0.0583	PHASE 1	0.7352	HAUL1	0.03932	HAUL2
ANNUAL	R431	551418.28	4165152.3	551418.284165152.3	0.0541	PHASE 1	0.4751	HAUL1	0.03689	HAUL2
ANNUAL	R432	551338.28	4165172.3	551338.284165172.3	0.0573	PHASE 1	1.2404	HAUL1	0.0407	HAUL2
ANNUAL	R433	551378.28	4165172.3	551378.284165172.3	0.0534	PHASE 1	0.6499	HAUL1	0.03815	HAUL2
ANNUAL	R434	551298.14	4164530.93	551298.144164530.93	0.1298	PHASE 1	0.1130	HAUL1	0.04929	HAUL2
ANNUAL	R435	551318.14	4164550.93	551318.144164550.93	0.1346	PHASE 1	0.1177	HAUL1	0.04949	HAUL2
ANNUAL	R436	551298.14	4164570.93	551298.144164570.93	0.1498	PHASE 1	0.1339	HAUL1	0.05238	HAUL2
ANNUAL	R437	551338.14	4164570.93	551338.144164570.93	0.1377	PHASE 1	0.1218	HAUL1	0.04928	HAUL2
ANNUAL	R438	551298.14	4164590.93	551298.144164590.93	0.1601	PHASE 1	0.1456	HAUL1	0.05379	HAUL2
ANNUAL	R439	551338.14	4164590.93	551338.144164590.93	0.1459	PHASE 1	0.1316	HAUL1	0.05049	HAUL2
ANNUAL	R440	551378.14	4164590.93	551378.144164590.93	0.1329	PHASE 1	0.1198	HAUL1	0.04745	HAUL2
ANNUAL	R441	551478.28	4164952.3	551478.284164952.3	0.0957	PHASE 1	0.3679	HAUL1	0.04156	HAUL2
ANNUAL	R442	551518.28	4164952.3	551518.284164952.3	0.0856	PHASE 1	0.2905	HAUL1	0.03902	HAUL2
ANNUAL	R443	551418.28	4164972.3	551418.284164972.3	0.1091	PHASE 1	0.6697	HAUL1	0.04526	HAUL2
ANNUAL	R444	551458.28	4164972.3	551458.284164972.3	0.0962	PHASE 1	0.4582	HAUL1	0.04231	HAUL2
ANNUAL	R445	551498.28	4164972.3	551498.284164972.3	0.0859	PHASE 1	0.3420	HAUL1	0.03998	HAUL2
ANNUAL	R446	551538.28	4164972.3	551538.284164972.3	0.0773	PHASE 1	0.2699	HAUL1	0.0373	HAUL2
ANNUAL	R447	551418.28	4164992.3	551418.284164992.3	0.1024	PHASE 1	0.7756	HAUL1	0.0445	HAUL2
ANNUAL	R448	551458.28	4164992.3	551458.284164992.3	0.0907	PHASE 1	0.4890	HAUL1	0.04162	HAUL2
ANNUAL	R449	551498.28	4164992.3	551498.284164992.3	0.0812	PHASE 1	0.3542	HAUL1	0.03904	HAUL2
ANNUAL	R450	551478.28	4165012.3	551478.284165012.3	0.0806	PHASE 1	0.4216	HAUL1	0.03958	HAUL2
ANNUAL	R451	551438.28	4165012.3	551438.284165012.3	0.0888	PHASE 1	0.4210	HAUL1	0.04282	HAUL2
ANNUAL	R452	551478.28	4165012.3	551478.284165012.3	0.0755	PHASE 1	0.4219	HAUL1	0.03849	HAUL2
ANNUAL	R453	551378.28	4165052.3	551378.284165052.3	0.0920	PHASE 1	1.9834	HAUL1	0.04484	HAUL2
ANNUAL	R454	551438.28	4165052.3	551438.284165052.3	0.0779	PHASE 1	0.6178	HAUL1	0.04056	HAUL2
ANNUAL	R455	551478.28	4165052.3	551478.284165052.3	0.0705	PHASE 1	0.4124	HAUL1	0.03804	HAUL2
ANNUAL	R456	551378.28	4165072.3	551378.284165072.3	0.0842	PHASE 1	1.4784	HAUL1	0.0438	HAUL2
ANNUAL	R457	551418.28	4165072.3	551418.284165072.3	0.0758	PHASE 1	0.7267	HAUL1	0.04097	HAUL2
ANNUAL	R458	551458.28	4165072.3	551458.284165072.3	0.0687	PHASE 1	0.4697	HAUL1	0.0384	HAUL2
ANNUAL	R459	551378.28	4165092.3	551378.284165092.3	0.0768	PHASE 1	1.1814	HAUL1	0.04272	HAUL2
ANNUAL	R460	551418.28	4165092.3	551418.284165092.3	0.0697	PHASE 1	0.6451	HAUL1	0.03999	HAUL2
ANNUAL	R461	551458.28	4165092.3	551458.284165092.3	0.0636	PHASE 1	0.4377	HAUL1	0.03751	HAUL2
ANNUAL	R462	551358.28	4165112.3	551358.284165112.3	0.0734	PHASE 1	0.5193	HAUL1	0.04303	HAUL2
ANNUAL	R463	551398.28	4165112.3	551398.284165112.3	0.0670	PHASE 1	0.4016	HAUL1	0.04016	HAUL2
ANNUAL	R464	551438.28	4165112.3	551438.284165112.3	0.0614	PHASE 1	0.4780	HAUL1	0.03775	HAUL2
ANNUAL	R465	551338.28	4165132.3	551338.284165132.3	0.0696	PHASE 1	2.1228	HAUL1	0.04327	HAUL2
ANNUAL	R466	551378.28	4165132.3	551378.284165132.3	0.0639	PHASE 1	0.8427	HAUL1	0.04048	HAUL2
ANNUAL	R467	551418.28	4165132.3	551418.284165132.3	0.0589	PHASE 1	0.5224	HAUL1	0.03795	HAUL2
ANNUAL	R468	551458.28	4165132.3	551458.284165132.3	0.0541	PHASE 1	0.3738	HAUL1	0.0358	HAUL2
ANNUAL	R469	551358.28	4165152.3	551358.284165152.3	0.0606	PHASE 1	1.0033	HAUL1	0.04062	HAUL2
ANNUAL	R470	551398.28	4165152.3	551398.284165152.3	0.0562	PHASE 1	0.5784	HAUL1	0.03808	HAUL2
ANNUAL	R471	551318.28	4165172.3	551318.284165172.3	0.0595	PHASE 1	2.2309	HAUL1	0.04209	HAUL2
ANNUAL	R472	551358.28	4165172.3	551358.284165172.3	0.0553	PHASE 1	0.8551	HAUL1	0.03939	HAUL2
ANNUAL	R473	551678.14	4164370.93	551678.144164370.93	0.0513	PHASE 1	0.0429	HAUL1	0.02693	HAUL2
ANNUAL	R474	551298.14	4164550.93	551298.144164550.93	0.1397	PHASE 1	0.1397	HAUL1	0.05091	HAUL2
ANNUAL	R475	551358.14	4164550.93	551358.144164550.93	0.1245	PHASE 1	0.1079	HAUL1	0.04662	HAUL2
ANNUAL	R476	551318.14	4164570.93	551318.144164570.93	0.1437	PHASE 1	0.1276	HAUL1	0.0508	HAUL2
ANNUAL	R477	551358.14	4164570.93	551358.144164570.93	0.1319	PHASE 1	0.1164	HAUL1	0.04782	HAUL2
ANNUAL	R478	551318.14	4164590.93	551318.144164590.93	0.1529	PHASE 1	0.1383	HAUL1	0.05211	HAUL2
ANNUAL	R479	551358.14	4164590.93	551358.144164590.93	0.1392	PHASE 1	0.1264	HAUL1	0.04894	HAUL2
ANNUAL	R480	551298.14	4164610.93	551298.144164610.93	0.1704	PHASE 1	0.1582	HAUL1	0.05511	HAUL2
ANNUAL	R481	551318.14	4164610.93	551318.144164610.93	0.1620	PHASE 1	0.1498	HAUL1	0.05332	HAUL2
ANNUAL	R482	551358.14	4164610.93	551358.144164610.93	0.1464	PHASE 1	0.1351	HAUL1	0.04996	HAUL2
ANNUAL	R483	551398.14	4164610.93	551398.144164610.93	0.1325	PHASE 1	0.1230	HAUL1	0.04691	HAUL2
ANNUAL	R484	551438.14	4164610.93	551438.144164610.93	0.1204	PHASE 1	0.1133	HAUL1	0.04416	HAUL2
ANNUAL	R485	551358.14	4164630.93	551358.144164630.93	0.0670	PHASE 1	0.1455	HAUL1	0.05029	HAUL2
ANNUAL	R486	551398.14	4164630.93	551398.144164630.93	0.1378	PHASE 1	0.1319	HAUL1	0.04771	HAUL2
ANNUAL	R487	551298.14	4164650.93	551298.144164650.93	0.1904	PHASE 1	0.1869	HAUL1	0.05739	HAUL2
ANNUAL	R488	551338.14	4164650.93	551338.144164650.93	0.1692	PHASE 1	0.1659	HAUL1	0.05354	HAUL2
ANNUAL	R489	551398.14	4164650.93	551398.144164650.93	0.1427	PHASE 1	0.1415	HAUL1	0.04842	HAUL2
ANNUAL	R490	551438.14	4164650.93	551438.144164650.93	0.1282	PHASE 1	0.1283	HAUL1	0.04545	HAUL2
ANNUAL	R491	551298.14	4164670.93	551298.144164670.93	0.1997	PHASE 1	0.1997	HAUL1	0.05834	HAUL2
ANNUAL	R492	551338.14	4164670.93	551338.144164670.93	0.1761	PHASE 1	0.1705	HAUL1	0.05434	HAUL2
ANNUAL	R493	551378.14	4164670.93	551378.144164670.93	0.1560	PHASE 1	0.1601	HAUL1	0.05071	HAUL2
ANNUAL	R494	551418.14	4164670.93	551418.144164670.93	0.1390	PHASE 1	0.1447	HAUL1	0.04747	HAUL2
ANNUAL	R495	551478.14	4164670.93	551478.144164670.93	0.1181	PHASE 1	0.1273	HAUL1	0.04319	HAUL2
ANNUAL	R496	551318.14	4164690.93	551318.144164690.93	0.1948	PHASE 1	0.1948	HAUL1	0.05703	HAUL2
ANNUAL	R497	551358.14	4164690.93	551358.144164690.93	0.1709	PHASE 1	0.1830	HAUL1	0.0531	HAUL2
ANNUAL	R498	551398.14	4164690.93	551398.144164690.93	0.1509	PHASE 1	0.1633	HAUL1	0.04957	HAUL2
ANNUAL	R499	551458.14	4164690.93	551458.144164690.93	0.1269	PHASE 1	0.1415	HAUL1	0.04494	HAUL2
ANNUAL	R500	551338.14	4164710.93	551338.144164710.93	0.1877	PHASE 1	0.2116	HAUL1	0.05558	HAUL2
ANNUAL	R501	551378.14	4164710.93	551378.144164710.93	0.1642	PHASE 1	0.1864	HAUL1	0.05175	HAUL2
ANNUAL	R502	551418.14	4164710.93	551418.144164710.93	0.1448	PHASE 1	0.1666	HAUL1	0.04857	HAUL2
ANNUAL	R503	551458.14	4164710.93	551458.144164710.93	0.1286	PHASE 1	0.1512	HAUL1	0.04526	HAUL2
ANNUAL	R504	551398.14	4164730.93	551398.144164730.93	0.1565	PHASE 1	0.1899	HAUL1	0.05032	HAUL2
ANNUAL	R505	551418.14	4164750.93	551418.144164750.93	0.1479	PHASE 1	0.1935	HAUL1	0.04883	HAUL2
ANNUAL	R506	550697.48	4164311.07	550697.484164311.07	0.0415	PHASE 1	0.0272	HAUL1	0.02229	HAUL2
ANNUAL	R507	550637.48	4164311.07	550637.484164311.07	0.0580	PHASE 1	0.03	HAUL1	0.02377	HAUL2
ANNUAL	R508	550697.48	4164311.07	550697.484164311.07	0.0599	PHASE 1	0.0426	HAUL1	0.02732	HAUL2
ANNUAL	R509	550737.48	4164311.07	550737.484164311.07	0.0593	PHASE 1	0.0448</			

ANNUAL	R555	550577.48	4164351.07	550577.484164351.07	0.0611	PHASE 1	0.0356	HAUL1	0.03756	HAUL2
ANNUAL	R556	550637.48	4164351.07	550637.484164351.07	0.0672	PHASE 1	0.0428	HAUL1	0.03526	HAUL2
ANNUAL	R557	550677.48	4164351.07	550677.484164351.07	0.0694	PHASE 1	0.0471	HAUL1	0.03288	HAUL2
ANNUAL	R558	550717.48	4164351.07	550717.484164351.07	0.0698	PHASE 1	0.0505	HAUL1	0.03097	HAUL2
ANNUAL	R559	550777.48	4164351.07	550777.484164351.07	0.0679	PHASE 1	0.0538	HAUL1	0.0299	HAUL2
ANNUAL	R560	550817.48	4164351.07	550817.484164351.07	0.0659	PHASE 1	0.0553	HAUL1	0.0305	HAUL2
ANNUAL	R561	550837.48	4164351.07	550837.484164351.07	0.0647	PHASE 1	0.0559	HAUL1	0.03104	HAUL2
ANNUAL	R562	550577.48	4164371.07	550577.484164371.07	0.0652	PHASE 1	0.0373	HAUL1	0.04083	HAUL2
ANNUAL	R563	550617.48	4164371.07	550617.484164371.07	0.0704	PHASE 1	0.0428	HAUL1	0.03954	HAUL2
ANNUAL	R564	550677.48	4164371.07	550677.484164371.07	0.0751	PHASE 1	0.0506	HAUL1	0.0359	HAUL2
ANNUAL	R565	550717.48	4164371.07	550717.484164371.07	0.0758	PHASE 1	0.0546	HAUL1	0.03362	HAUL2
ANNUAL	R566	550757.48	4164371.07	550757.484164371.07	0.0749	PHASE 1	0.0573	HAUL1	0.03255	HAUL2
ANNUAL	R567	550857.48	4164371.07	550857.484164371.07	0.0699	PHASE 1	0.0618	HAUL1	0.03481	HAUL2
ANNUAL	R568	550717.48	4164391.07	550717.484164391.07	0.0826	PHASE 1	0.0592	HAUL1	0.03668	HAUL2
ANNUAL	R569	550757.48	4164391.07	550757.484164391.07	0.0819	PHASE 1	0.0625	HAUL1	0.03556	HAUL2
ANNUAL	R570	550797.48	4164391.07	550797.484164391.07	0.0803	PHASE 1	0.0649	HAUL1	0.03612	HAUL2
ANNUAL	R571	550857.48	4164391.07	550857.484164391.07	0.0772	PHASE 1	0.0680	HAUL1	0.03851	HAUL2
ANNUAL	R572	550757.48	4164411.07	550757.484164411.07	0.0899	PHASE 1	0.0684	HAUL1	0.03912	HAUL2
ANNUAL	R573	550797.48	4164411.07	550797.484164411.07	0.0885	PHASE 1	0.0714	HAUL1	0.04002	HAUL2
ANNUAL	R574	550857.48	4164411.07	550857.484164411.07	0.0859	PHASE 1	0.0756	HAUL1	0.04292	HAUL2
ANNUAL	R575	550837.48	4164431.07	550837.484164431.07	0.0970	PHASE 1	0.0830	HAUL1	0.04711	HAUL2
ANNUAL	R576	550837.48	4164451.07	550837.484164451.07	0.1092	PHASE 1	0.0938	HAUL1	0.05344	HAUL2
ANNUAL	R577	550857.48	4164471.07	550857.484164471.07	0.1239	PHASE 1	0.1104	HAUL1	0.06225	HAUL2
ANNUAL	R578	551045.12	4165591.04	551045.124165591.04	0.0282	PHASE 1	0.0584	HAUL1	0.02385	HAUL2
ANNUAL	R579	550857.48	4164351.07	550857.484164351.07	0.0635	PHASE 1	0.0565	HAUL1	0.03187	HAUL2
ANNUAL	R580	550597.48	4164371.07	550597.484164371.07	0.0679	PHASE 1	0.0400	HAUL1	0.04033	HAUL2
ANNUAL	R581	550657.48	4164371.07	550657.484164371.07	0.0740	PHASE 1	0.0481	HAUL1	0.03722	HAUL2
ANNUAL	R582	550697.48	4164371.07	550697.484164371.07	0.0757	PHASE 1	0.0527	HAUL1	0.03466	HAUL2
ANNUAL	R583	550737.48	4164371.07	550737.484164371.07	0.0755	PHASE 1	0.0561	HAUL1	0.03291	HAUL2
ANNUAL	R584	550777.48	4164371.07	550777.484164371.07	0.0741	PHASE 1	0.0584	HAUL1	0.03255	HAUL2
ANNUAL	R585	550697.48	4164391.07	550697.484164391.07	0.0823	PHASE 1	0.0570	HAUL1	0.03786	HAUL2
ANNUAL	R586	550737.48	4164391.07	550737.484164391.07	0.0824	PHASE 1	0.0610	HAUL1	0.0359	HAUL2
ANNUAL	R587	550777.48	4164391.07	550777.484164391.07	0.0811	PHASE 1	0.0637	HAUL1	0.03566	HAUL2
ANNUAL	R588	550817.48	4164391.07	550817.484164391.07	0.0793	PHASE 1	0.0660	HAUL1	0.03681	HAUL2
ANNUAL	R589	550737.48	4164411.07	550737.484164411.07	0.0903	PHASE 1	0.0667	HAUL1	0.0394	HAUL2
ANNUAL	R590	550777.48	4164411.07	550777.484164411.07	0.0893	PHASE 1	0.0700	HAUL1	0.03937	HAUL2
ANNUAL	R591	550817.48	4164411.07	550817.484164411.07	0.0877	PHASE 1	0.0728	HAUL1	0.04092	HAUL2
ANNUAL	R592	550797.48	4164431.07	550797.484164431.07	0.0982	PHASE 1	0.0792	HAUL1	0.04478	HAUL2
ANNUAL	R593	550857.48	4164431.07	550857.484164431.07	0.0962	PHASE 1	0.0848	HAUL1	0.04821	HAUL2
ANNUAL	R594	550837.48	4164471.07	550837.484164471.07	0.1239	PHASE 1	0.1073	HAUL1	0.06122	HAUL2
ANNUAL	R595	551065.12	4165571.04	551065.124165571.04	0.0286	PHASE 1	0.0650	HAUL1	0.02452	HAUL2
ANNUAL	R596	551065.12	4165591.04	551065.124165591.04	0.0275	PHASE 1	0.0611	HAUL1	0.02328	HAUL2

Health Risk - Dose and Risk Factors and Values

Dose factors

Dose factors for calc	Construction	3rd trimester					source
		3rd trimester	0-2	2-9	10-30	16-70	
Daily Breath Rate (L/kg-day)	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04	dose factors for lookup in risk calcs
	Recreational	8,576-06	4,296-05	2,296-05	8,576-06	8,216-06	dose factors for lookup in risk calcs
	School	2,846-05	1,426-04	6,211-05	2,846-05	2,846-05	dose factors for lookup in risk calcs
	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for 2-9 per BAAQMD guidance
	Recreational	240	1200	640	240	230	OEHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SNUAPCO's draft guidance
A	School	240	1200	520	240	230	BAAQMD guidance - 95th percentile
	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	Recreational	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 3 years
	School	0.12	0.12	0.12	0.12	0.12	BAAQMD Guidance - 180 days/yr, 6 hours/day
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		1.00	1.00	1.00	1.00	1.00	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Risk factors for calcs		Construction		Residential	1.10E+01	11.00	3.90E+00	1.10E+00	1.10E+00	without ED, ED/AT calculation in risk calc
		Recreational	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	
		school	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00	
CPF, DPM (mg/kg-day) ¹		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	OEHA 2015, Table 7.1
Average Age Sensitivity Factor		10	10	3	1	1	1	1	1	OEHA 2015, Table 8.3
AT, Average Time (days)		70	70	70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAM		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	OEHA 2015, Table 8.4: Use FAM = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)		see ED calculation sheet								
Chronic Inhalation Reference Exposure Level, respiratory, DPM		5								

http://www.baaqmd.gov/?media/files/planning-and-research/rules-and-reg/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Utilized rate reasoning, see Section 3.9.2 of CAPCOA's HRA Guide.

An alternative approach is applying utilized emission rate and summation concepts, which drastically reduce the computational time for large multiple pollutant projects.

All chemical concentration levels vary linearly with their source release rate

This concentration at the receptor can then be multiplied by the actual rates (actual g/s (x) utilized 1 g/s rates)

DPM HRA Factors and values - Operations

Dose factors

Factors for calcs -->	Construction	3rd trimester					source
		Existing Student	2,49E-03	1,33E-03	4,97E-04	4,76E-04	dose factors for lookup in risk calcs
Daily Breath Rate (L/kg-day)	New Student	4,97E-04	2,49E-03	1,33E-03	4,97E-04	4,76E-04	dose factors for lookup in risk calcs
	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04	
	Offsite Student	4,97E-04	2,49E-03	1,33E-03	4,97E-04	4,76E-04	
	Residential	361	1090	631	261	233	
	School	240	1200	640	240	230	
A	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	School	0.49	0.49	0.49	0.49	0.49	180 days/yr
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		4.20	4.20	4.20	4.20	4.20	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Factors for calcs -->	Construction	Existing Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		New Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
CPF, DPM (mg/kg-day) ¹	Offsite Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	OEHA 2015, Table 7.1	
	Residential	3.93E-02	3.14E-01	0.00E+00	2.20E-01	0.00E+00	OEHA 2015, Table 8.3	
	Average Age Sensitivity Factor	1.1	1.1	3	1	1	OEHA 2015, Table 8.3	
	AT, Average Time (days)	70	70	70	70	70	Averaging time for lifetime cancer risk	
	FAM	1.00	1.00	1.00	1.00	1.00	OEHA 2015, Table 8.4; Use FAM = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth	
ED, Exposure Duration (years)		Grades 1-8; ages 6-13						
Buses	New Wilson/Central Students	0.25	2.00	4.00	14.00		Equation 8.2.4.8, OEHA 2015, 30 years total	
	Residential						Equation 8.2.4.8, OEHA 2015	
	Roadway	New Wilson/Central Students		4.00			Equation 8.2.4.8, OEHA 2015, 30 years total	
Chronic Inhalation Reference Exposure Level, respiratory, DPM		5						

1hr to annual

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Project-Level Mitigated PM2.5 during Construction

Receptor	PM2.5
Residential	0.003
BAAQMD Threshold	0.3
Exceed BAAQMD Threshold?	No

										1	2	3	4	5	6	7	8	9	10	11
Period	ID	X	Y	concat	Concentration [ug/m³]	PHASE	Concentration [ug/m³]	Haul1	Concentration [ug/m³]	Haul2	Concentration [ug/m³]	Building	Concentration [ug/m³]	Building						
ANNUAL	R1	550876.81	416431.7	550876.81 416431.7	0.0677	PHASE 1	0.0523	HAUL1	0.0296	HAUL2	0.0305									
ANNUAL	R2	550896.81	416435.7	550896.81 416435.7	0.0615	PHASE 1	0.0574	HAUL1	0.03305	HAUL2										
ANNUAL	R3	550876.81	416437.7	550876.81 416437.7	0.0690	PHASE 1	0.0625	HAUL1	0.03564	HAUL2										
ANNUAL	R4	550936.81	416437.7	550936.81 416437.7	0.0658	PHASE 1	0.0637	HAUL1	0.03759	HAUL2										
ANNUAL	R5	550876.81	416439.7	550876.81 416439.7	0.0764	PHASE 1	0.0691	HAUL1	0.03946	HAUL2										
ANNUAL	R6	550916.81	416439.7	550916.81 416439.7	0.0743	PHASE 1	0.0703	HAUL1	0.0409	HAUL2										
ANNUAL	R7	550956.81	416439.7	550956.81 416439.7	0.0735	PHASE 1	0.0715	HAUL1	0.04188	HAUL2										
ANNUAL	R8	550996.81	416439.7	550996.81 416439.7	0.0713	PHASE 1	0.0710	HAUL1	0.04238	HAUL2										
ANNUAL	R9	551036.81	416439.7	551036.81 416439.7	0.0710	PHASE 1	0.0709	HAUL1	0.04247	HAUL2										
ANNUAL	R10	550896.81	416441.7	550896.81 416441.7	0.0842	PHASE 1	0.0779	HAUL1	0.04475	HAUL2										
ANNUAL	R11	550936.81	416441.7	550936.81 416441.7	0.0822	PHASE 1	0.0791	HAUL1	0.04585	HAUL2										
ANNUAL	R12	550976.81	416441.7	550976.81 416441.7	0.0806	PHASE 1	0.0795	HAUL1	0.04635	HAUL2										
ANNUAL	R13	551016.81	416441.7	551016.81 416441.7	0.0798	PHASE 1	0.0794	HAUL1	0.04631	HAUL2										
ANNUAL	R14	551056.81	416441.7	551056.81 416441.7	0.0798	PHASE 1	0.0791	HAUL1	0.04586	HAUL2										
ANNUAL	R15	550876.81	416443.7	550876.81 416443.7	0.0958	PHASE 1	0.0866	HAUL1	0.0493	HAUL2										
ANNUAL	R16	550916.81	416443.7	550916.81 416443.7	0.0939	PHASE 1	0.0887	HAUL1	0.05056	HAUL2										
ANNUAL	R17	550956.81	416443.7	550956.81 416443.7	0.0919	PHASE 1	0.0896	HAUL1	0.05101	HAUL2										
ANNUAL	R18	550996.81	416443.7	550996.81 416443.7	0.0905	PHASE 1	0.0890	HAUL1	0.0508	HAUL2										
ANNUAL	R19	551036.81	416443.7	551036.81 416443.7	0.0899	PHASE 1	0.0892	HAUL1	0.05009	HAUL2										
ANNUAL	R20	551076.81	416443.7	551076.81 416443.7	0.0901	PHASE 1	0.0884	HAUL1	0.04903	HAUL2										
ANNUAL	R21	551116.81	416443.7	551116.81 416443.7	0.0905	PHASE 1	0.0873	HAUL1	0.04773	HAUL2										
ANNUAL	R22	550896.81	416445.7	550896.81 416445.7	0.1077	PHASE 1	0.1001	HAUL1	0.05621	HAUL2										
ANNUAL	R23	550936.81	416445.7	550936.81 416445.7	0.1096	PHASE 1	0.1056	HAUL1	0.05657	HAUL2										
ANNUAL	R24	550976.81	416445.7	550976.81 416445.7	0.1036	PHASE 1	0.1021	HAUL1	0.05609	HAUL2										
ANNUAL	R25	551016.81	416445.7	551016.81 416445.7	0.1023	PHASE 1	0.1016	HAUL1	0.05502	HAUL2										
ANNUAL	R26	551056.81	416445.7	551056.81 416445.7	0.1038	PHASE 1	0.1005	HAUL1	0.05356	HAUL2										
ANNUAL	R27	551096.81	416445.7	551096.81 416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05186	HAUL2										
ANNUAL	R28	551136.81	416445.7	551136.81 416445.7	0.1016	PHASE 1	0.0986	HAUL1	0.05006	HAUL2										
ANNUAL	R29	550876.81	416447.7	550876.81 416447.7	0.1241	PHASE 1	0.1241	HAUL1	0.06131	HAUL2										
ANNUAL	R30	550936.81	416447.7	550936.81 416447.7	0.1211	PHASE 1	0.1174	HAUL1	0.06297	HAUL2										
ANNUAL	R31	550976.81	416447.7	550976.81 416447.7	0.1186	PHASE 1	0.1174	HAUL1	0.06168	HAUL2										
ANNUAL	R32	551036.81	416447.7	551036.81 416447.7	0.1161	PHASE 1	0.1154	HAUL1	0.05882	HAUL2										
ANNUAL	R33	551076.81	416447.7	551076.81 416447.7	0.1153	PHASE 1	0.1132	HAUL1	0.0566	HAUL2										
ANNUAL	R34	551116.81	416447.7	551116.81 416447.7	0.1185	PHASE 1	0.1103	HAUL1	0.0543	HAUL2										
ANNUAL	R35	551156.81	416447.7	551156.81 416447.7	0.1134	PHASE 1	0.1064	HAUL1	0.05201	HAUL2										
ANNUAL	R36	550916.81	416449.7	550916.81 416449.7	0.1414	PHASE 1	0.1364	HAUL1	0.07101	HAUL2										
ANNUAL	R37	550976.81	416449.7	550976.81 416449.7	0.1367	PHASE 1	0.1364	HAUL1	0.06773	HAUL2										
ANNUAL	R38	551016.81	416449.7	551016.81 416449.7	0.1340	PHASE 1	0.1342	HAUL1	0.06497	HAUL2										
ANNUAL	R39	551096.81	416449.7	551096.81 416449.7	0.1302	PHASE 1	0.1271	HAUL1	0.05913	HAUL2										
ANNUAL	R40	551136.81	416449.7	551136.81 416449.7	0.1281	PHASE 1	0.1281	HAUL1	0.05629	HAUL2										
ANNUAL	R41	550876.81	416455.7	550876.81 416455.7	0.0626	PHASE 1	0.0570	HAUL1	0.03239	HAUL2										
ANNUAL	R42	550936.81	416455.7	550936.81 416455.7	0.0594	PHASE 1	0.0578	HAUL1	0.03423	HAUL2										
ANNUAL	R43	550896.81	416437.7	550896.81 416437.7	0.0678	PHASE 1	0.0630	HAUL1	0.03636	HAUL2										
ANNUAL	R44	550956.81	416437.7	550956.81 416437.7	0.0650	PHASE 1	0.0638	HAUL1	0.03808	HAUL2										
ANNUAL	R45	550896.81	416439.7	550896.81 416439.7	0.0753	PHASE 1	0.0698	HAUL1	0.04023	HAUL2										
ANNUAL	R46	550936.81	416439.7	550936.81 416439.7	0.0733	PHASE 1	0.0707	HAUL1	0.04145	HAUL2										
ANNUAL	R47	550976.81	416439.7	550976.81 416439.7	0.0718	PHASE 1	0.0710	HAUL1	0.04219	HAUL2										
ANNUAL	R48	551016.81	416439.7	551016.81 416439.7	0.0711	PHASE 1	0.0710	HAUL1	0.04247	HAUL2										
ANNUAL	R49	550876.81	416441.7	550876.81 416441.7	0.0853	PHASE 1	0.0770	HAUL1	0.04396	HAUL2										
ANNUAL	R50	550916.81	416441.7	550916.81 416441.7	0.0832	PHASE 1	0.0786	HAUL1	0.04538	HAUL2										
ANNUAL	R51	550956.81	416441.7	550956.81 416441.7	0.0813	PHASE 1	0.0794	HAUL1	0.04513	HAUL2										
ANNUAL	R52	550996.81	416441.7	550996.81 416441.7	0.0801	PHASE 1	0.0795	HAUL1	0.04639	HAUL2										
ANNUAL	R53	551036.81	416441.7	551036.81 416441.7	0.0797	PHASE 1	0.0793	HAUL1	0.04613	HAUL2										
ANNUAL	R54	551076.81	416441.7	551076.81 416441.7	0.0801	PHASE 1	0.0788	HAUL1	0.04551	HAUL2										
ANNUAL	R55	550896.81	416443.7	550896.81 416443.7	0.0949	PHASE 1	0.0878	HAUL1	0.05003	HAUL2										
ANNUAL	R56	550936.81	416443.7	550936.81 416443.7	0.0928	PHASE 1	0.0893	HAUL1	0.05088	HAUL2										
ANNUAL	R57	550976.81	416443.7	550976.81 416443.7	0.0911	PHASE 1	0.0897	HAUL1	0.05009	HAUL2										
ANNUAL	R58	551016.81	416443.7	551016.81 416443.7	0.0901	PHASE 1	0.0895	HAUL1	0.0505	HAUL2										
ANNUAL	R59	551056.81	416443.7	551056.81 416443.7	0.0899	PHASE 1	0.0889	HAUL1	0.0496	HAUL2										
ANNUAL	R60	551096.81	416443.7	551096.81 416443.7	0.0903	PHASE 1	0.0879	HAUL1	0.0484	HAUL2										
ANNUAL	R61	550876.81	416445.7	550876.81 416445.7	0.1085	PHASE 1	0.0985	HAUL1	0.05563	HAUL2										
ANNUAL	R62	550916.81	416445.7	550916.81 416445.7	0.1067	PHASE 1	0.1067	HAUL1	0.05651	HAUL2										
ANNUAL	R63	550956.81	416445.7	550956.81 416445.7	0.1045	PHASE 1	0.1022	HAUL1	0.05642	HAUL2										
ANNUAL	R64	550996.81	416445.7	550996.81 416445.7	0.1028	PHASE 1	0.1019	HAUL1	0.05562	HAUL2										
ANNUAL	R65	551036.81	416445.7	551036.81 416445.7	0.1019	PHASE 1	0.1011	HAUL1	0.05433	HAUL2										
ANNUAL	R66	551076.81	416445.7	551076.81 416445.7	0.1017	PHASE 1	0.0998	HAUL1	0.05274	HAUL2										
ANNUAL	R67	551116.81	416445.7	551116.81 416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05097	HAUL2										
ANNUAL	R68	551156.81	416445.7	551156.81 416445.7	0.1051	PHASE 1	0.0951	HAUL1	0.04913	HAUL2										
ANNUAL	R69	550916.81	416447.7	550916.81 416447.7	0.1223	PHASE 1	0.1168	HAUL1	0.06331	HAUL2										
ANNUAL	R70	550956.81	416447.7	550956.81 416447.7	0.1198	PHASE 1	0.1177	HAUL1	0.06242	HAUL2										
ANNUAL	R71	550996.81	416447.7	550996.81 416447.7	0.1176	PHASE 1	0.1169	HAUL1	0.06082	HAUL2										
ANNUAL	R72	551056.81	416447.7	551056.81 416447.7	0.1157	PHASE 1	0.1144	HAUL1	0.05773	HAUL2										
ANNUAL	R73	551096.81	416447.7	551096.81 416447.7	0.1149	PHASE 1	0.1149	HAUL1	0.05545	HAUL2										
ANNUAL	R74	551136.81	416447.7	551136.81 416447.7	0.1140	PHASE 1	0.1085	HAUL1	0.05319	HAUL2										
ANNUAL	R75	551176.81	416447.7	551176.81 416447.7	0.1125	PHASE 1	0.1041	HAUL1	0.05087	HAUL2										
ANNUAL	R76	550956.81	416449.7	550956.81 416449.7	0.1383	PHASE 1	0.1370	HAUL1	0.06898	HAUL2										
ANNUAL	R77	550996.81	416449.7	550996.81 416449.7	0.1353	PHASE 1	0.1354	HAUL1	0.06638	HAUL2										
ANNUAL	R78	551076.81	416449.7	551076.81 416449.7	0.1311	PHASE 1	0.1292	HAUL1	0.06059	HAUL2										
ANNUAL	R79	551116.81	416449.7	551116.81 416449.7	0.1291	PHASE 1	0.1291	HAUL1	0.05769	HAUL2										
ANNUAL	R80	551156.81	416449.7	551156.81 416449.7	0.1268	PHASE 1	0.1194	HAUL1	0.05491	HAUL2										
ANNUAL	R81	551176.81	416449.7	551176.81 416449.7	0.1253	PHASE 1	0.1163	HAUL1	0.05356	HAUL2										
ANNUAL	R82	550956.81	416451.7	550956.81 416451.7	0.1610	PHASE 1	0.1614	HAUL1	0.07607	HAUL2										
ANNUAL	R83	550996.81	416451.7	550996.81 416451.7	0.1566	PHASE 1	0.1583	HAUL1	0.07224	HAUL2										
ANNUAL	R84	551036.81	416451.7	551036.81 416451.7	0.1529	PHASE 1	0.1537	HAUL1	0.06889	HAUL2										

ANNUAL	R138	551236.81	4164551.7	551236.814164551.7	0.1563	PHASE 1	0.1423	HAUL1	0.05587	HAUL2
ANNUAL	R139	551076.81	4164571.7	551076.814164571.7	0.2261	PHASE 1	0.2304	HAUL1	0.0768	HAUL2
ANNUAL	R140	551116.81	4164571.7	551116.814164571.7	0.2107	PHASE 1	0.2124	HAUL1	0.07117	HAUL2
ANNUAL	R141	551176.81	4164571.7	551176.814164571.7	0.1915	PHASE 1	0.1826	HAUL1	0.06395	HAUL2
ANNUAL	R142	551216.81	4164571.7	551216.814164571.7	0.1773	PHASE 1	0.1650	HAUL1	0.05974	HAUL2
ANNUAL	R143	551276.81	4164571.7	551276.814164571.7	0.1570	PHASE 1	0.1416	HAUL1	0.05421	HAUL2
ANNUAL	R144	551176.81	4164591.7	551176.814164591.7	0.2121	PHASE 1	0.2043	HAUL1	0.06632	HAUL2
ANNUAL	R145	551216.81	4164591.7	551216.814164591.7	0.1937	PHASE 1	0.1825	HAUL1	0.06172	HAUL2
ANNUAL	R146	551256.81	4164591.7	551256.814164591.7	0.1761	PHASE 1	0.1761	HAUL1	0.05792	HAUL2
ANNUAL	R147	551156.81	4164611.7	551156.814164611.7	0.2464	PHASE 1	0.2434	HAUL1	0.07124	HAUL2
ANNUAL	R148	551196.81	4164611.7	551196.814164611.7	0.2222	PHASE 1	0.2146	HAUL1	0.06597	HAUL2
ANNUAL	R149	551256.81	4164611.7	551256.814164611.7	0.1899	PHASE 1	0.1787	HAUL1	0.05918	HAUL2
ANNUAL	R150	551176.81	4164631.7	551176.814164631.7	0.2574	PHASE 1	0.2550	HAUL1	0.07057	HAUL2
ANNUAL	R151	551236.81	4164631.7	551236.814164631.7	0.2035	PHASE 1	0.2154	HAUL1	0.06286	HAUL2
ANNUAL	R152	551276.81	4164631.7	551276.814164631.7	0.1921	PHASE 1	0.1839	HAUL1	0.05848	HAUL2
ANNUAL	R153	551276.81	4164651.7	551276.814164651.7	0.2035	PHASE 1	0.2006	HAUL1	0.05966	HAUL2
ANNUAL	R154	550384.79	4164911.52	550384.794164911.52	0.0577	PHASE 1	0.0239	HAUL1	0.23009	HAUL2
ANNUAL	R155	550164.79	4164951.52	550164.794164951.52	0.0245	PHASE 1	0.0131	HAUL1	0.28728	HAUL2
ANNUAL	R156	550405.01	4165031.9	550405.014165031.9	0.0591	PHASE 1	0.0245	HAUL1	0.41312	HAUL2
ANNUAL	R157	550465.01	4165031.9	550465.014165031.9	0.0935	PHASE 1	0.0295	HAUL1	0.72657	HAUL2
ANNUAL	R158	550545.01	4165031.9	550545.014165031.9	0.1201	PHASE 1	0.0384	HAUL1	2.22488	HAUL2
ANNUAL	R159	550605.01	4165031.9	550605.014165031.9	0.1650	PHASE 1	0.0469	HAUL1	0.68248	HAUL2
ANNUAL	R160	550645.01	4165031.9	550645.014165031.9	0.1986	PHASE 1	0.0535	HAUL1	0.47512	HAUL2
ANNUAL	R161	550665.01	4165031.9	550665.014165031.9	0.2152	PHASE 1	0.0569	HAUL1	0.41111	HAUL2
ANNUAL	R162	550705.01	4165031.9	550705.014165031.9	0.2453	PHASE 1	0.0642	HAUL1	0.32844	HAUL2
ANNUAL	R163	550405.01	4165051.9	550405.014165051.9	0.0581	PHASE 1	0.0243	HAUL1	0.45625	HAUL2
ANNUAL	R164	550465.01	4165051.9	550465.014165051.9	0.0765	PHASE 1	0.0291	HAUL1	0.87658	HAUL2
ANNUAL	R165	550545.01	4165051.9	550545.014165051.9	0.1136	PHASE 1	0.0375	HAUL1	1.60752	HAUL2
ANNUAL	R166	550585.01	4165051.9	550585.014165051.9	0.1383	PHASE 1	0.0427	HAUL1	0.77403	HAUL2
ANNUAL	R167	550665.01	4165051.9	550665.014165051.9	0.1924	PHASE 1	0.0548	HAUL1	0.38766	HAUL2
ANNUAL	R168	550705.01	4165051.9	550705.014165051.9	0.2157	PHASE 1	0.0615	HAUL1	0.30509	HAUL2
ANNUAL	R169	550745.01	4165051.9	550745.014165051.9	0.2324	PHASE 1	0.0686	HAUL1	0.24847	HAUL2
ANNUAL	R170	550545.01	4165071.9	550545.014165071.9	0.1076	PHASE 1	0.0367	HAUL1	1.26849	HAUL2
ANNUAL	R171	550585.01	4165071.9	550585.014165071.9	0.1288	PHASE 1	0.0416	HAUL1	0.69455	HAUL2
ANNUAL	R172	550685.01	4165071.9	550685.014165071.9	0.1832	PHASE 1	0.0560	HAUL1	0.32449	HAUL2
ANNUAL	R173	550725.01	4165071.9	550725.014165071.9	0.1990	PHASE 1	0.0624	HAUL1	0.26186	HAUL2
ANNUAL	R174	550585.01	4165091.9	550585.014165091.9	0.0935	PHASE 1	0.0339	HAUL1	1.64006	HAUL2
ANNUAL	R175	550565.01	4165091.9	550565.014165091.9	0.1109	PHASE 1	0.0382	HAUL1	0.78735	HAUL2
ANNUAL	R176	550725.01	4165091.9	550725.014165091.9	0.1777	PHASE 1	0.0599	HAUL1	0.24959	HAUL2
ANNUAL	R177	550525.01	4165111.9	550525.014165111.9	0.0891	PHASE 1	0.0332	HAUL1	1.2922	HAUL2
ANNUAL	R178	550565.01	4165111.9	550565.014165111.9	0.1044	PHASE 1	0.0373	HAUL1	0.70539	HAUL2
ANNUAL	R179	550531.9	4165131.9	550531.94165131.9	0.0787	PHASE 1	0.0281	HAUL1	1.65918	HAUL2
ANNUAL	R180	550545.01	4165131.9	550545.014165131.9	0.0916	PHASE 1	0.0345	HAUL1	0.79911	HAUL2
ANNUAL	R181	550585.01	4165131.9	550585.014165131.9	0.1054	PHASE 1	0.0386	HAUL1	0.53169	HAUL2
ANNUAL	R182	550625.01	4165131.9	550625.014165131.9	0.1193	PHASE 1	0.0430	HAUL1	0.39366	HAUL2
ANNUAL	R183	550705.01	4165131.9	550705.014165131.9	0.1417	PHASE 1	0.0529	HAUL1	0.24813	HAUL2
ANNUAL	R184	550505.01	4165151.9	550505.014165151.9	0.0755	PHASE 1	0.0303	HAUL1	1.31832	HAUL2
ANNUAL	R185	550545.01	4165151.9	550545.014165151.9	0.0869	PHASE 1	0.0338	HAUL1	0.7135	HAUL2
ANNUAL	R186	550605.01	4165151.9	550605.014165151.9	0.1050	PHASE 1	0.0397	HAUL1	0.42117	HAUL2
ANNUAL	R187	550665.01	4165151.9	550665.014165151.9	0.1215	PHASE 1	0.0464	HAUL1	0.28852	HAUL2
ANNUAL	R188	550705.01	4165151.9	550705.014165151.9	0.1297	PHASE 1	0.0512	HAUL1	0.23426	HAUL2
ANNUAL	R189	550505.01	4165171.9	550505.014165171.9	0.0723	PHASE 1	0.0298	HAUL1	1.09069	HAUL2
ANNUAL	R190	550545.01	4165171.9	550545.014165171.9	0.0825	PHASE 1	0.0351	HAUL1	0.64183	HAUL2
ANNUAL	R191	550605.01	4165171.9	550605.014165171.9	0.0984	PHASE 1	0.0387	HAUL1	0.39005	HAUL2
ANNUAL	R192	550665.01	4165171.9	550665.014165171.9	0.1124	PHASE 1	0.0450	HAUL1	0.27011	HAUL2
ANNUAL	R193	550705.01	4165171.9	550705.014165171.9	0.1193	PHASE 1	0.0495	HAUL1	0.22039	HAUL2
ANNUAL	R194	550545.01	4165191.9	550545.014165191.9	0.0785	PHASE 1	0.0324	HAUL1	0.57868	HAUL2
ANNUAL	R195	550605.01	4165191.9	550605.014165191.9	0.0923	PHASE 1	0.0378	HAUL1	0.35974	HAUL2
ANNUAL	R196	550645.01	4165191.9	550645.014165191.9	0.1007	PHASE 1	0.0416	HAUL1	0.2381	HAUL2
ANNUAL	R197	550685.01	4165191.9	550685.014165191.9	0.1075	PHASE 1	0.0458	HAUL1	0.2273	HAUL2
ANNUAL	R198	550585.01	4165211.9	550585.014165211.9	0.0829	PHASE 1	0.0351	HAUL1	0.37808	HAUL2
ANNUAL	R199	550625.01	4165211.9	550625.014165211.9	0.0906	PHASE 1	0.0386	HAUL1	0.29137	HAUL2
ANNUAL	R200	550665.01	4165211.9	550665.014165211.9	0.0972	PHASE 1	0.0424	HAUL1	0.23358	HAUL2
ANNUAL	R201	550685.01	4165031.9	550685.014165031.9	0.2309	PHASE 1	0.2309	HAUL1	0.3609	HAUL2
ANNUAL	R202	550725.01	4165031.9	550725.014165031.9	0.2578	PHASE 1	0.0680	HAUL1	0.28719	HAUL2
ANNUAL	R203	550445.01	4165051.9	550445.014165051.9	0.0696	PHASE 1	0.0274	HAUL1	0.64461	HAUL2
ANNUAL	R204	550485.01	4165051.9	550485.014165051.9	0.0842	PHASE 1	0.0310	HAUL1	1.47456	HAUL2
ANNUAL	R205	550565.01	4165051.9	550565.014165051.9	0.1255	PHASE 1	0.0400	HAUL1	1.03698	HAUL2
ANNUAL	R206	550645.01	4165051.9	550645.014165051.9	0.1792	PHASE 1	0.0516	HAUL1	0.44477	HAUL2
ANNUAL	R207	550685.01	4165051.9	550685.014165051.9	0.2047	PHASE 1	0.0541	HAUL1	0.34218	HAUL2
ANNUAL	R208	550725.01	4165051.9	550725.014165051.9	0.2251	PHASE 1	0.0650	HAUL1	0.27434	HAUL2
ANNUAL	R209	550525.01	4165071.9	550525.014165071.9	0.0980	PHASE 1	0.0345	HAUL1	2.26722	HAUL2
ANNUAL	R210	550565.01	4165071.9	550565.014165071.9	0.1179	PHASE 1	0.0391	HAUL1	0.89303	HAUL2
ANNUAL	R211	550605.01	4165071.9	550605.014165071.9	0.1401	PHASE 1	0.0442	HAUL1	0.56996	HAUL2
ANNUAL	R212	550705.01	4165071.9	550705.014165071.9	0.1918	PHASE 1	0.0591	HAUL1	0.28937	HAUL2
ANNUAL	R213	550745.01	4165071.9	550745.014165071.9	0.2047	PHASE 1	0.0657	HAUL1	0.23737	HAUL2
ANNUAL	R214	550545.01	4165091.9	550545.014165091.9	0.1019	PHASE 1	0.0360	HAUL1	1.05595	HAUL2
ANNUAL	R215	550585.01	4165091.9	550585.014165091.9	0.1202	PHASE 1	0.0406	HAUL1	0.63086	HAUL2
ANNUAL	R216	550505.01	4165111.9	550505.014165111.9	0.0821	PHASE 1	0.0314	HAUL1	2.31272	HAUL2
ANNUAL	R217	550545.01	4165111.9	550545.014165111.9	0.0966	PHASE 1	0.0352	HAUL1	0.9083	HAUL2
ANNUAL	R218	550585.01	4165111.9	550585.014165111.9	0.1095	PHASE 1	0.0385	HAUL1	0.57777	HAUL2
ANNUAL	R219	550525.01	4165131.9	550525.014165131.9	0.0850	PHASE 1	0.0326	HAUL1	1.07378	HAUL2
ANNUAL	R220	550565.01	4165131.9	550565.014165131.9	0.0984	PHASE 1	0.0365	HAUL1	0.63873	HAUL2
ANNUAL	R221	550605.01	4165131.9	550605.014165131.9	0.1124	PHASE 1	0.0408	HAUL1	0.4537	HAUL2
ANNUAL	R222	550685.01	4165131.9	550685.014165131.9	0.1371	PHASE 1	0.0503	HAUL1	0.27504	HAUL2
ANNUAL	R223	550485.01	4165151.9	550485.014165151.9	0.0702	PHASE 1	0.0287	HAUL1	2.36716	HAUL2
ANNUAL	R224	550525.01	4165151.9	550525.014165151.9	0.0811	PHASE 1	0.0320	HAUL1	0.92127	HAUL2
ANNUAL	R225	550565.01	4165151.9	550565.014165151.9	0.0929	PHASE 1	0.0357	HAUL1	0.58202	HAUL2
ANNUAL	R226	550625.01	4165151.9	550625.014165151.9	0.1109	PHASE 1	0.0419	HAUL1	0.36724	HAUL2
ANNUAL	R227	550685.01	4165151.9	550685.014165151.9	0.1259	PHASE 1	0.0487	HAUL1	0.25907	HAUL2
ANNUAL	R228	550485.01	4165171.9	550485.014165171.9	0.0675	PHASE 1	0.0282	HAUL1	1.70262	HAUL2
ANNUAL	R229	550525.01	4165171.9	550525.014165171.9	0.0773	PHASE 1	0.0314	HAUL1	0.80774	HAUL2
ANNUAL	R230	550585.01	4165171.9	550585.014165171.9	0.0932	PHASE 1	0.0368	HAUL1	0.45136	HAUL2
ANNUAL	R231	550625.01	4165171.9	550625.014165171.9	0.1034	PHASE 1	0.0407	HAUL1	0.34156	HAUL2
ANNUAL	R232	550685.01	4165171.9	550685.014165171.9	0.1161	PHASE 1	0.0472	HAUL1	0.24317	HAUL2
ANNUAL	R23									

ANNUAL	R277	550865.45	4165372.15	550865.454165372.15	0.0605	PHASE 1	0.0524	HAUL1	0.0633	HAUL2
ANNUAL	R278	550405.6	4164911.75	550405.64164911.75	0.0641	PHASE 1	0.0256	HAUL1	0.24757	HAUL2
ANNUAL	R279	550405.6	4164931.75	550405.64164931.75	0.0631	PHASE 1	0.0261	HAUL1	0.24895	HAUL2
ANNUAL	R280	550465.6	4164931.75	550465.64164931.75	0.0890	PHASE 1	0.0314	HAUL1	0.38145	HAUL2
ANNUAL	R281	550625.01	4165231.9	550625.014165231.9	0.0851	PHASE 1	0.0376	HAUL1	0.26673	HAUL2
ANNUAL	R282	550665.01	4165231.9	550665.014165231.9	0.0908	PHASE 1	0.0413	HAUL1	0.21552	HAUL2
ANNUAL	R283	550645.01	4165251.9	550645.014165251.9	0.0827	PHASE 1	0.0384	HAUL1	0.21822	HAUL2
ANNUAL	R284	550685.01	4165251.9	550685.014165251.9	0.0870	PHASE 1	0.0420	HAUL1	0.18035	HAUL2
ANNUAL	R285	550925.45	4165192.15	550925.454165192.15	0.1130	PHASE 1	0.0319	HAUL1	0.09408	HAUL2
ANNUAL	R286	550965.45	4165192.15	550965.454165192.15	0.1109	PHASE 1	0.0945	HAUL1	0.08441	HAUL2
ANNUAL	R287	550905.45	4165212.15	550905.454165212.15	0.1044	PHASE 1	0.0754	HAUL1	0.09463	HAUL2
ANNUAL	R288	550945.45	4165212.15	550945.454165212.15	0.1024	PHASE 1	0.0852	HAUL1	0.08479	HAUL2
ANNUAL	R289	550985.45	4165212.15	550985.454165212.15	0.0991	PHASE 1	0.0984	HAUL1	0.07649	HAUL2
ANNUAL	R290	551045.45	4165232.15	551045.454165232.15	0.0903	PHASE 1	0.0595	HAUL1	0.05621	HAUL2
ANNUAL	R291	550905.45	4165232.15	550905.454165232.15	0.0962	PHASE 1	0.0728	HAUL1	0.08967	HAUL2
ANNUAL	R292	550945.45	4165232.15	550945.454165232.15	0.0939	PHASE 1	0.0824	HAUL1	0.08056	HAUL2
ANNUAL	R293	550985.45	4165232.15	550985.454165232.15	0.0904	PHASE 1	0.0953	HAUL1	0.07285	HAUL2
ANNUAL	R294	551045.45	4165232.15	551045.454165232.15	0.0820	PHASE 1	0.1266	HAUL1	0.06334	HAUL2
ANNUAL	R295	550885.45	4165252.15	550885.454165252.15	0.0898	PHASE 1	0.0666	HAUL1	0.08955	HAUL2
ANNUAL	R296	550925.45	4165252.15	550925.454165252.15	0.0878	PHASE 1	0.0748	HAUL1	0.08039	HAUL2
ANNUAL	R297	550965.45	4165252.15	550965.454165252.15	0.0849	PHASE 1	0.0855	HAUL1	0.07266	HAUL2
ANNUAL	R298	551045.45	4165252.15	551045.454165252.15	0.0751	PHASE 1	0.1237	HAUL1	0.0604	HAUL2
ANNUAL	R299	551085.45	4165252.15	551085.454165252.15	0.0687	PHASE 1	0.1614	HAUL1	0.05551	HAUL2
ANNUAL	R300	550885.45	4165272.15	550885.454165272.15	0.0834	PHASE 1	0.0644	HAUL1	0.08431	HAUL2
ANNUAL	R301	550925.45	4165272.15	550925.454165272.15	0.0813	PHASE 1	0.0644	HAUL1	0.07593	HAUL2
ANNUAL	R302	551025.45	4165272.15	551025.454165272.15	0.0718	PHASE 1	0.0788	HAUL1	0.06503	HAUL2
ANNUAL	R303	551065.45	4165272.15	551065.454165272.15	0.0663	PHASE 1	0.1371	HAUL1	0.05515	HAUL2
ANNUAL	R304	551105.45	4165272.15	551105.454165272.15	0.0606	PHASE 1	0.1907	HAUL1	0.0509	HAUL2
ANNUAL	R305	550885.45	4165292.15	550885.454165292.15	0.0776	PHASE 1	0.0624	HAUL1	0.07919	HAUL2
ANNUAL	R306	550925.45	4165292.15	550925.454165292.15	0.0755	PHASE 1	0.0701	HAUL1	0.07157	HAUL2
ANNUAL	R307	551025.45	4165292.15	551025.454165292.15	0.0664	PHASE 1	0.1047	HAUL1	0.05597	HAUL2
ANNUAL	R308	551065.45	4165292.15	551065.454165292.15	0.0615	PHASE 1	0.1339	HAUL1	0.05248	HAUL2
ANNUAL	R309	550865.45	4165312.15	550865.454165312.15	0.0732	PHASE 1	0.0574	HAUL1	0.07811	HAUL2
ANNUAL	R310	550905.45	4165312.15	550905.454165312.15	0.0715	PHASE 1	0.0640	HAUL1	0.07064	HAUL2
ANNUAL	R311	550945.45	4165312.15	550945.454165312.15	0.0690	PHASE 1	0.0725	HAUL1	0.06428	HAUL2
ANNUAL	R312	551045.45	4165312.15	551045.454165312.15	0.0595	PHASE 1	0.1143	HAUL1	0.05187	HAUL2
ANNUAL	R313	550885.45	4165332.15	550885.454165332.15	0.0671	PHASE 1	0.0686	HAUL1	0.06945	HAUL2
ANNUAL	R314	550925.45	4165332.15	550925.454165332.15	0.0657	PHASE 1	0.0658	HAUL1	0.06325	HAUL2
ANNUAL	R315	551005.45	4165332.15	551005.454165332.15	0.0595	PHASE 1	0.0890	HAUL1	0.05323	HAUL2
ANNUAL	R316	550945.45	4165352.15	550945.454165352.15	0.0603	PHASE 1	0.0679	HAUL1	0.05683	HAUL2
ANNUAL	R317	550885.45	4165372.15	550885.454165372.15	0.0597	PHASE 1	0.0551	HAUL1	0.06055	HAUL2
ANNUAL	R318	550425.6	4164911.75	550425.64164911.75	0.0715	PHASE 1	0.0715	HAUL1	0.27014	HAUL2
ANNUAL	R319	550425.6	4164931.75	550425.64164931.75	0.0705	PHASE 1	0.0272	HAUL1	0.29376	HAUL2
ANNUAL	R320	550485.6	4164931.75	550485.64164931.75	0.1012	PHASE 1	0.0338	HAUL1	0.46001	HAUL2
ANNUAL	R321	550505.6	4164931.75	550505.64164931.75	0.1161	PHASE 1	0.0365	HAUL1	0.58991	HAUL2
ANNUAL	R322	550425.6	4164951.75	550425.64164951.75	0.0695	PHASE 1	0.0270	HAUL1	0.32027	HAUL2
ANNUAL	R323	550525.6	4164951.75	550525.64164951.75	0.1293	PHASE 1	0.0388	HAUL1	1.07899	HAUL2
ANNUAL	R324	550505.6	4164971.75	550505.64164971.75	0.1084	PHASE 1	0.0354	HAUL1	0.85059	HAUL2
ANNUAL	R325	550585.6	4164971.75	550585.64164971.75	0.1901	PHASE 1	0.0479	HAUL1	1.53006	HAUL2
ANNUAL	R326	550625.6	4164971.75	550625.64164971.75	0.2525	PHASE 1	0.0559	HAUL1	0.74118	HAUL2
ANNUAL	R327	550505.6	4164991.75	550505.64164991.75	0.1048	PHASE 1	0.0348	HAUL1	1.08584	HAUL2
ANNUAL	R328	550585.6	4164991.75	550585.64164991.75	0.1748	PHASE 1	0.0465	HAUL1	1.21115	HAUL2
ANNUAL	R329	550625.6	4164991.75	550625.64164991.75	0.2245	PHASE 1	0.0466	HAUL1	0.65597	HAUL2
ANNUAL	R330	550665.6	4164991.75	550665.64164991.75	0.2790	PHASE 1	0.0620	HAUL1	0.46402	HAUL2
ANNUAL	R331	550585.6	4165011.75	550585.64165011.75	0.1614	PHASE 1	0.0452	HAUL1	1.01008	HAUL2
ANNUAL	R332	550625.6	4165011.75	550625.64165011.75	0.2015	PHASE 1	0.0520	HAUL1	0.60639	HAUL2
ANNUAL	R333	550665.6	4165011.75	550665.64165011.75	0.2439	PHASE 1	0.0594	HAUL1	0.43528	HAUL2
ANNUAL	R334	550705.6	4165011.75	550705.64165011.75	0.2836	PHASE 1	0.0673	HAUL1	0.33563	HAUL2
ANNUAL	R335	551378.51	4165172.16	551378.514165172.16	0.0534	PHASE 1	0.0534	HAUL1	0.05816	HAUL2
ANNUAL	R336	551418.51	4165172.16	551418.514165172.16	0.0498	PHASE 1	0.4331	HAUL1	0.03582	HAUL2
ANNUAL	R337	551338.51	4165192.16	551338.514165192.16	0.0524	PHASE 1	1.0191	HAUL1	0.09399	HAUL2
ANNUAL	R338	551378.51	4165192.16	551378.514165192.16	0.0490	PHASE 1	0.5784	HAUL1	0.03695	HAUL2
ANNUAL	R339	551418.51	4165192.16	551418.514165192.16	0.0459	PHASE 1	0.3960	HAUL1	0.03474	HAUL2
ANNUAL	R340	551338.51	4165212.16	551338.514165212.16	0.0481	PHASE 1	0.6115	HAUL1	0.03805	HAUL2
ANNUAL	R341	551378.51	4165212.16	551378.514165212.16	0.0451	PHASE 1	0.5183	HAUL1	0.03576	HAUL2
ANNUAL	R342	551418.51	4165212.16	551418.514165212.16	0.0424	PHASE 1	0.3619	HAUL1	0.03365	HAUL2
ANNUAL	R343	551358.51	4165232.16	551358.514165232.16	0.0430	PHASE 1	0.5734	HAUL1	0.03564	HAUL2
ANNUAL	R344	551398.51	4165232.16	551398.514165232.16	0.0405	PHASE 1	0.3880	HAUL1	0.03355	HAUL2
ANNUAL	R345	551378.51	4165252.16	551378.514165252.16	0.0387	PHASE 1	0.4167	HAUL1	0.03338	HAUL2
ANNUAL	R346	551378.51	4165272.16	551378.514165272.16	0.0361	PHASE 1	0.0361	HAUL1	0.37220	HAUL2
ANNUAL	R347	551498.28	4164852.3	551498.284164852.3	0.1089	PHASE 1	0.2273	HAUL1	0.04235	HAUL2
ANNUAL	R348	551538.28	4164852.3	551538.284164852.3	0.0971	PHASE 1	0.2001	HAUL1	0.03978	HAUL2
ANNUAL	R349	551458.28	4164872.3	551458.284164872.3	0.1199	PHASE 1	0.2847	HAUL1	0.04409	HAUL2
ANNUAL	R350	551498.28	4164872.3	551498.284164872.3	0.1059	PHASE 1	0.2453	HAUL1	0.04206	HAUL2
ANNUAL	R351	551538.28	4164872.3	551538.284164872.3	0.0945	PHASE 1	0.2129	HAUL1	0.0395	HAUL2
ANNUAL	R352	551458.28	4164892.3	551458.284164892.3	0.1160	PHASE 1	0.3133	HAUL1	0.04513	HAUL2
ANNUAL	R353	551498.28	4164892.3	551498.284164892.3	0.1026	PHASE 1	0.2648	HAUL1	0.0417	HAUL2
ANNUAL	R354	551538.28	4164892.3	551538.284164892.3	0.0916	PHASE 1	0.2260	HAUL1	0.03917	HAUL2
ANNUAL	R355	551458.28	4164912.3	551458.284164912.3	0.1116	PHASE 1	0.3460	HAUL1	0.04405	HAUL2
ANNUAL	R356	551498.28	4164912.3	551498.284164912.3	0.0988	PHASE 1	0.2853	HAUL1	0.04128	HAUL2
ANNUAL	R357	551538.28	4164912.3	551538.284164912.3	0.0881	PHASE 1	0.2889	HAUL1	0.03978	HAUL2
ANNUAL	R358	551458.28	4164932.3	551458.284164932.3	0.1068	PHASE 1	0.3824	HAUL1	0.04353	HAUL2
ANNUAL	R359	551498.28	4164932.3	551498.284164932.3	0.0947	PHASE 1	0.3059	HAUL1	0.0408	HAUL2
ANNUAL	R360	551538.28	4164932.3	551538.284164932.3	0.0848	PHASE 1	0.2510	HAUL1	0.03833	HAUL2
ANNUAL	R361	550405.6	4164951.75	550405.64164951.75	0.0627	PHASE 1	0.0253	HAUL1	0.29073	HAUL2
ANNUAL	R362	550465.6	4164951.75	550465.64164951.75	0.0871	PHASE 1	0.0311	HAUL1	0.42593	HAUL2
ANNUAL	R363	550405.6	4164971.75	550405.64164971.75	0.0955	PHASE 1	0.0329	HAUL1	0.60529	HAUL2
ANNUAL	R364	550525.6	4164971.75	550525.64164971.75	0.1239	PHASE 1	0.0381	HAUL1	1.49118	HAUL2
ANNUAL	R365	550605.6	4164971.75	550605.64164971.75	0.2197	PHASE 1	0.0517	HAUL1	0.99222	HAUL2
ANNUAL	R366	550405.6	4164991.75	550405.64164991.75	0.0611	PHASE 1	0.0250	HAUL1	0.34455	HAUL2
ANNUAL	R367	550565.6	4164991.75	550565.64164991.75	0.1534	PHASE 1	0.0432	HAUL1	2.13871	HAUL2
ANNUAL	R368	550605.6	4164991.75	550605.64164991.75	0.1987	PHASE 1	0.1987	HAUL1	0.85555	HAUL2
ANNUAL	R369	550645.6	4164991.75	550645.64164991.75	0.2515	PHASE 1	0.0578	HAUL1	0.54701	HAUL2
ANNUAL	R370	550565.6	4165011.75	550565.64165011.75	0.1435	PHASE 1	0.0422	HAUL1	1.55596	HAUL2
ANNUAL	R371	550605.6	4165011.75	5506						

ANNUAL	R416	551358.28	4165072.3	551358.284165072.3	0.0890	PHASE 1	3.0291	HAUL1	0.04533	HAUL2
ANNUAL	R417	551398.28	4165072.3	551398.284165072.3	0.0798	PHASE 1	0.9762	HAUL1	0.04235	HAUL2
ANNUAL	R418	551438.28	4165072.3	551438.284165072.3	0.0721	PHASE 1	0.9725	HAUL1	0.03965	HAUL2
ANNUAL	R419	551358.28	4165092.3	551358.284165092.3	0.0808	PHASE 1	2.0353	HAUL1	0.0442	HAUL2
ANNUAL	R420	551398.28	4165092.3	551398.284165092.3	0.0732	PHASE 1	0.8337	HAUL1	0.04133	HAUL2
ANNUAL	R421	551438.28	4165092.3	551438.284165092.3	0.0666	PHASE 1	0.5241	HAUL1	0.03872	HAUL2
ANNUAL	R422	551338.28	4165112.3	551338.284165112.3	0.0770	PHASE 1	3.1266	HAUL1	0.04452	HAUL2
ANNUAL	R423	551378.28	4165112.3	551378.284165112.3	0.0701	PHASE 1	0.9843	HAUL1	0.04161	HAUL2
ANNUAL	R424	551418.28	4165112.3	551418.284165112.3	0.0641	PHASE 1	0.3779	HAUL1	0.03898	HAUL2
ANNUAL	R425	551458.28	4165112.3	551458.284165112.3	0.0588	PHASE 1	0.4048	HAUL1	0.03659	HAUL2
ANNUAL	R426	551358.28	4165132.3	551358.284165132.3	0.0666	PHASE 1	1.2097	HAUL1	0.04184	HAUL2
ANNUAL	R427	551398.28	4165132.3	551398.284165132.3	0.0613	PHASE 1	0.6454	HAUL1	0.03918	HAUL2
ANNUAL	R428	551438.28	4165132.3	551438.284165132.3	0.0566	PHASE 1	0.4373	HAUL1	0.03677	HAUL2
ANNUAL	R429	551338.28	4165152.3	551338.284165152.3	0.0630	PHASE 1	1.5691	HAUL1	0.041	HAUL2
ANNUAL	R430	551378.28	4165152.3	551378.284165152.3	0.0583	PHASE 1	0.7352	HAUL1	0.03932	HAUL2
ANNUAL	R431	551418.28	4165152.3	551418.284165152.3	0.0541	PHASE 1	0.4751	HAUL1	0.03689	HAUL2
ANNUAL	R432	551338.28	4165172.3	551338.284165172.3	0.0573	PHASE 1	1.2404	HAUL1	0.0407	HAUL2
ANNUAL	R433	551378.28	4165172.3	551378.284165172.3	0.0534	PHASE 1	0.6499	HAUL1	0.03815	HAUL2
ANNUAL	R434	551298.14	4164530.93	551298.144164530.93	0.1298	PHASE 1	0.1130	HAUL1	0.04929	HAUL2
ANNUAL	R435	551318.14	4164550.93	551318.144164550.93	0.1346	PHASE 1	0.1177	HAUL1	0.04949	HAUL2
ANNUAL	R436	551298.14	4164570.93	551298.144164570.93	0.1498	PHASE 1	0.1339	HAUL1	0.05238	HAUL2
ANNUAL	R437	551338.14	4164570.93	551338.144164570.93	0.1377	PHASE 1	0.1218	HAUL1	0.04928	HAUL2
ANNUAL	R438	551298.14	4164590.93	551298.144164590.93	0.1601	PHASE 1	0.1456	HAUL1	0.05379	HAUL2
ANNUAL	R439	551338.14	4164590.93	551338.144164590.93	0.1459	PHASE 1	0.1316	HAUL1	0.05049	HAUL2
ANNUAL	R440	551378.14	4164590.93	551378.144164590.93	0.1329	PHASE 1	0.1198	HAUL1	0.04745	HAUL2
ANNUAL	R441	551478.28	4164952.3	551478.284164952.3	0.0957	PHASE 1	0.3679	HAUL1	0.04156	HAUL2
ANNUAL	R442	551518.28	4164952.3	551518.284164952.3	0.0856	PHASE 1	0.2905	HAUL1	0.03902	HAUL2
ANNUAL	R443	551418.28	4164972.3	551418.284164972.3	0.1091	PHASE 1	0.6697	HAUL1	0.04526	HAUL2
ANNUAL	R444	551458.28	4164972.3	551458.284164972.3	0.0962	PHASE 1	0.4582	HAUL1	0.04231	HAUL2
ANNUAL	R445	551498.28	4164972.3	551498.284164972.3	0.0859	PHASE 1	0.3420	HAUL1	0.03998	HAUL2
ANNUAL	R446	551538.28	4164972.3	551538.284164972.3	0.0773	PHASE 1	0.2699	HAUL1	0.0373	HAUL2
ANNUAL	R447	551418.28	4164992.3	551418.284164992.3	0.1024	PHASE 1	0.7756	HAUL1	0.0445	HAUL2
ANNUAL	R448	551458.28	4164992.3	551458.284164992.3	0.0907	PHASE 1	0.4890	HAUL1	0.04162	HAUL2
ANNUAL	R449	551498.28	4164992.3	551498.284164992.3	0.0812	PHASE 1	0.3542	HAUL1	0.03904	HAUL2
ANNUAL	R450	551478.28	4165012.3	551478.284165012.3	0.0806	PHASE 1	0.4216	HAUL1	0.03958	HAUL2
ANNUAL	R451	551438.28	4165012.3	551438.284165012.3	0.0888	PHASE 1	0.4210	HAUL1	0.04282	HAUL2
ANNUAL	R452	551478.28	4165012.3	551478.284165012.3	0.0755	PHASE 1	0.4219	HAUL1	0.03881	HAUL2
ANNUAL	R453	551378.28	4165052.3	551378.284165052.3	0.0920	PHASE 1	1.9834	HAUL1	0.04484	HAUL2
ANNUAL	R454	551438.28	4165052.3	551438.284165052.3	0.0779	PHASE 1	0.6178	HAUL1	0.04056	HAUL2
ANNUAL	R455	551478.28	4165052.3	551478.284165052.3	0.0705	PHASE 1	0.4124	HAUL1	0.03804	HAUL2
ANNUAL	R456	551378.28	4165072.3	551378.284165072.3	0.0842	PHASE 1	1.4784	HAUL1	0.0438	HAUL2
ANNUAL	R457	551418.28	4165072.3	551418.284165072.3	0.0758	PHASE 1	0.7267	HAUL1	0.04097	HAUL2
ANNUAL	R458	551458.28	4165072.3	551458.284165072.3	0.0687	PHASE 1	0.4697	HAUL1	0.0384	HAUL2
ANNUAL	R459	551378.28	4165092.3	551378.284165092.3	0.0768	PHASE 1	1.1814	HAUL1	0.04272	HAUL2
ANNUAL	R460	551418.28	4165092.3	551418.284165092.3	0.0697	PHASE 1	0.6451	HAUL1	0.03999	HAUL2
ANNUAL	R461	551458.28	4165092.3	551458.284165092.3	0.0636	PHASE 1	0.4377	HAUL1	0.03751	HAUL2
ANNUAL	R462	551358.28	4165112.3	551358.284165112.3	0.0734	PHASE 1	0.5193	HAUL1	0.04303	HAUL2
ANNUAL	R463	551398.28	4165112.3	551398.284165112.3	0.0670	PHASE 1	0.4070	HAUL1	0.04016	HAUL2
ANNUAL	R464	551438.28	4165112.3	551438.284165112.3	0.0614	PHASE 1	0.4780	HAUL1	0.03775	HAUL2
ANNUAL	R465	551338.28	4165132.3	551338.284165132.3	0.0696	PHASE 1	2.1228	HAUL1	0.04327	HAUL2
ANNUAL	R466	551378.28	4165132.3	551378.284165132.3	0.0639	PHASE 1	0.8427	HAUL1	0.04048	HAUL2
ANNUAL	R467	551418.28	4165132.3	551418.284165132.3	0.0589	PHASE 1	0.5224	HAUL1	0.03795	HAUL2
ANNUAL	R468	551458.28	4165132.3	551458.284165132.3	0.0541	PHASE 1	0.3738	HAUL1	0.0358	HAUL2
ANNUAL	R469	551358.28	4165152.3	551358.284165152.3	0.0606	PHASE 1	1.0033	HAUL1	0.04062	HAUL2
ANNUAL	R470	551398.28	4165152.3	551398.284165152.3	0.0562	PHASE 1	0.5784	HAUL1	0.03808	HAUL2
ANNUAL	R471	551318.28	4165172.3	551318.284165172.3	0.0595	PHASE 1	2.2309	HAUL1	0.04209	HAUL2
ANNUAL	R472	551358.28	4165172.3	551358.284165172.3	0.0553	PHASE 1	0.8551	HAUL1	0.03939	HAUL2
ANNUAL	R473	551678.14	4164370.93	551678.144164370.93	0.0513	PHASE 1	0.0429	HAUL1	0.02603	HAUL2
ANNUAL	R474	551298.14	4164550.93	551298.144164550.93	0.1397	PHASE 1	0.1397	HAUL1	0.05091	HAUL2
ANNUAL	R475	551358.14	4164550.93	551358.144164550.93	0.1245	PHASE 1	0.1079	HAUL1	0.04662	HAUL2
ANNUAL	R476	551318.14	4164570.93	551318.144164570.93	0.1437	PHASE 1	0.1276	HAUL1	0.0508	HAUL2
ANNUAL	R477	551358.14	4164570.93	551358.144164570.93	0.1319	PHASE 1	0.1164	HAUL1	0.04782	HAUL2
ANNUAL	R478	551318.14	4164590.93	551318.144164590.93	0.1529	PHASE 1	0.1383	HAUL1	0.05211	HAUL2
ANNUAL	R479	551358.14	4164590.93	551358.144164590.93	0.1392	PHASE 1	0.1264	HAUL1	0.04854	HAUL2
ANNUAL	R480	551298.14	4164610.93	551298.144164610.93	0.1704	PHASE 1	0.1582	HAUL1	0.05511	HAUL2
ANNUAL	R481	551318.14	4164610.93	551318.144164610.93	0.1620	PHASE 1	0.1498	HAUL1	0.05332	HAUL2
ANNUAL	R482	551358.14	4164610.93	551358.144164610.93	0.1464	PHASE 1	0.1351	HAUL1	0.04996	HAUL2
ANNUAL	R483	551398.14	4164610.93	551398.144164610.93	0.1325	PHASE 1	0.1230	HAUL1	0.04691	HAUL2
ANNUAL	R484	551438.14	4164610.93	551438.144164610.93	0.1204	PHASE 1	0.1133	HAUL1	0.04416	HAUL2
ANNUAL	R485	551358.14	4164630.93	551358.144164630.93	0.0670	PHASE 1	0.1455	HAUL1	0.05029	HAUL2
ANNUAL	R486	551398.14	4164630.93	551398.144164630.93	0.1378	PHASE 1	0.1319	HAUL1	0.04771	HAUL2
ANNUAL	R487	551298.14	4164650.93	551298.144164650.93	0.1904	PHASE 1	0.1869	HAUL1	0.05739	HAUL2
ANNUAL	R488	551338.14	4164650.93	551338.144164650.93	0.1692	PHASE 1	0.1659	HAUL1	0.05354	HAUL2
ANNUAL	R489	551398.14	4164650.93	551398.144164650.93	0.1427	PHASE 1	0.1415	HAUL1	0.04842	HAUL2
ANNUAL	R490	551438.14	4164650.93	551438.144164650.93	0.1282	PHASE 1	0.1283	HAUL1	0.04545	HAUL2
ANNUAL	R491	551298.14	4164670.93	551298.144164670.93	0.1997	PHASE 1	0.1997	HAUL1	0.05834	HAUL2
ANNUAL	R492	551338.14	4164670.93	551338.144164670.93	0.1761	PHASE 1	0.1705	HAUL1	0.05434	HAUL2
ANNUAL	R493	551378.14	4164670.93	551378.144164670.93	0.1560	PHASE 1	0.1601	HAUL1	0.05071	HAUL2
ANNUAL	R494	551418.14	4164670.93	551418.144164670.93	0.1390	PHASE 1	0.1447	HAUL1	0.04747	HAUL2
ANNUAL	R495	551478.14	4164670.93	551478.144164670.93	0.1181	PHASE 1	0.1273	HAUL1	0.04319	HAUL2
ANNUAL	R496	551318.14	4164690.93	551318.144164690.93	0.1948	PHASE 1	0.1948	HAUL1	0.05703	HAUL2
ANNUAL	R497	551358.14	4164690.93	551358.144164690.93	0.1709	PHASE 1	0.1830	HAUL1	0.0531	HAUL2
ANNUAL	R498	551398.14	4164690.93	551398.144164690.93	0.1509	PHASE 1	0.1633	HAUL1	0.04957	HAUL2
ANNUAL	R499	551458.14	4164690.93	551458.144164690.93	0.1269	PHASE 1	0.1415	HAUL1	0.04494	HAUL2
ANNUAL	R500	551338.14	4164710.93	551338.144164710.93	0.1877	PHASE 1	0.2116	HAUL1	0.05558	HAUL2
ANNUAL	R501	551378.14	4164710.93	551378.144164710.93	0.1642	PHASE 1	0.1864	HAUL1	0.05175	HAUL2
ANNUAL	R502	551418.14	4164710.93	551418.144164710.93	0.1448	PHASE 1	0.1666	HAUL1	0.04857	HAUL2
ANNUAL	R503	551458.14	4164710.93	551458.144164710.93	0.1286	PHASE 1	0.1512	HAUL1	0.04526	HAUL2
ANNUAL	R504	551398.14	4164730.93	551398.144164730.93	0.1565	PHASE 1	0.1899	HAUL1	0.05032	HAUL2
ANNUAL	R505	551418.14	4164750.93	551418.144164750.93	0.1479	PHASE 1	0.1935	HAUL1	0.04883	HAUL2
ANNUAL	R506	550697.48	4164311.07	550697.484164311.07	0.0415	PHASE 1	0.0272	HAUL1	0.02229	HAUL2
ANNUAL	R507	550637.48	4164311.07	550637.484164311.07	0.0580	PHASE 1	0.03	HAUL1	0.02377	HAUL2
ANNUAL	R508	550697.48	4164311.07	550697.484164311.07	0.0599	PHASE 1	0.0426	HAUL1	0.02732	HAUL2
ANNUAL	R509	550737.48	4164311.07	550737.484164311.07	0.0593	PHASE 1	0.0448</			

ANNUAL	R555	550577.48	4164351.07	550577.484164351.07	0.0611	PHASE 1	0.0356	HAUL1	0.03756	HAUL2
ANNUAL	R556	550637.48	4164351.07	550637.484164351.07	0.0672	PHASE 1	0.0428	HAUL1	0.03526	HAUL2
ANNUAL	R557	550677.48	4164351.07	550677.484164351.07	0.0694	PHASE 1	0.0471	HAUL1	0.03288	HAUL2
ANNUAL	R558	550717.48	4164351.07	550717.484164351.07	0.0698	PHASE 1	0.0505	HAUL1	0.03097	HAUL2
ANNUAL	R559	550777.48	4164351.07	550777.484164351.07	0.0679	PHASE 1	0.0538	HAUL1	0.0299	HAUL2
ANNUAL	R560	550817.48	4164351.07	550817.484164351.07	0.0659	PHASE 1	0.0553	HAUL1	0.0305	HAUL2
ANNUAL	R561	550837.48	4164351.07	550837.484164351.07	0.0647	PHASE 1	0.0559	HAUL1	0.03104	HAUL2
ANNUAL	R562	550577.48	4164371.07	550577.484164371.07	0.0652	PHASE 1	0.0373	HAUL1	0.04083	HAUL2
ANNUAL	R563	550617.48	4164371.07	550617.484164371.07	0.0704	PHASE 1	0.0428	HAUL1	0.03954	HAUL2
ANNUAL	R564	550677.48	4164371.07	550677.484164371.07	0.0751	PHASE 1	0.0506	HAUL1	0.0359	HAUL2
ANNUAL	R565	550717.48	4164371.07	550717.484164371.07	0.0758	PHASE 1	0.0546	HAUL1	0.03362	HAUL2
ANNUAL	R566	550757.48	4164371.07	550757.484164371.07	0.0749	PHASE 1	0.0573	HAUL1	0.03255	HAUL2
ANNUAL	R567	550857.48	4164371.07	550857.484164371.07	0.0699	PHASE 1	0.0618	HAUL1	0.03481	HAUL2
ANNUAL	R568	550717.48	4164391.07	550717.484164391.07	0.0826	PHASE 1	0.0592	HAUL1	0.03668	HAUL2
ANNUAL	R569	550757.48	4164391.07	550757.484164391.07	0.0819	PHASE 1	0.0625	HAUL1	0.03556	HAUL2
ANNUAL	R570	550797.48	4164391.07	550797.484164391.07	0.0803	PHASE 1	0.0649	HAUL1	0.03612	HAUL2
ANNUAL	R571	550857.48	4164391.07	550857.484164391.07	0.0772	PHASE 1	0.0680	HAUL1	0.03851	HAUL2
ANNUAL	R572	550757.48	4164411.07	550757.484164411.07	0.0899	PHASE 1	0.0684	HAUL1	0.03912	HAUL2
ANNUAL	R573	550797.48	4164411.07	550797.484164411.07	0.0885	PHASE 1	0.0714	HAUL1	0.04002	HAUL2
ANNUAL	R574	550857.48	4164411.07	550857.484164411.07	0.0859	PHASE 1	0.0756	HAUL1	0.04292	HAUL2
ANNUAL	R575	550837.48	4164431.07	550837.484164431.07	0.0970	PHASE 1	0.0830	HAUL1	0.04711	HAUL2
ANNUAL	R576	550837.48	4164451.07	550837.484164451.07	0.1092	PHASE 1	0.0938	HAUL1	0.05344	HAUL2
ANNUAL	R577	550857.48	4164471.07	550857.484164471.07	0.1239	PHASE 1	0.1104	HAUL1	0.06225	HAUL2
ANNUAL	R578	551045.12	4165591.04	551045.124165591.04	0.0282	PHASE 1	0.0584	HAUL1	0.02385	HAUL2
ANNUAL	R579	550857.48	4164351.07	550857.484164351.07	0.0635	PHASE 1	0.0565	HAUL1	0.03187	HAUL2
ANNUAL	R580	550597.48	4164371.07	550597.484164371.07	0.0679	PHASE 1	0.0400	HAUL1	0.04033	HAUL2
ANNUAL	R581	550657.48	4164371.07	550657.484164371.07	0.0740	PHASE 1	0.0481	HAUL1	0.03722	HAUL2
ANNUAL	R582	550697.48	4164371.07	550697.484164371.07	0.0757	PHASE 1	0.0527	HAUL1	0.03466	HAUL2
ANNUAL	R583	550737.48	4164371.07	550737.484164371.07	0.0755	PHASE 1	0.0561	HAUL1	0.03291	HAUL2
ANNUAL	R584	550777.48	4164371.07	550777.484164371.07	0.0741	PHASE 1	0.0584	HAUL1	0.03255	HAUL2
ANNUAL	R585	550697.48	4164391.07	550697.484164391.07	0.0823	PHASE 1	0.0570	HAUL1	0.03786	HAUL2
ANNUAL	R586	550737.48	4164391.07	550737.484164391.07	0.0824	PHASE 1	0.0610	HAUL1	0.0359	HAUL2
ANNUAL	R587	550777.48	4164391.07	550777.484164391.07	0.0811	PHASE 1	0.0637	HAUL1	0.03566	HAUL2
ANNUAL	R588	550817.48	4164391.07	550817.484164391.07	0.0793	PHASE 1	0.0660	HAUL1	0.03681	HAUL2
ANNUAL	R589	550737.48	4164411.07	550737.484164411.07	0.0903	PHASE 1	0.0667	HAUL1	0.0394	HAUL2
ANNUAL	R590	550777.48	4164411.07	550777.484164411.07	0.0893	PHASE 1	0.0700	HAUL1	0.03937	HAUL2
ANNUAL	R591	550817.48	4164411.07	550817.484164411.07	0.0877	PHASE 1	0.0728	HAUL1	0.04092	HAUL2
ANNUAL	R592	550797.48	4164431.07	550797.484164431.07	0.0982	PHASE 1	0.0792	HAUL1	0.04478	HAUL2
ANNUAL	R593	550857.48	4164431.07	550857.484164431.07	0.0962	PHASE 1	0.0848	HAUL1	0.04821	HAUL2
ANNUAL	R594	550837.48	4164471.07	550837.484164471.07	0.1239	PHASE 1	0.1073	HAUL1	0.06122	HAUL2
ANNUAL	R595	551065.12	4165571.04	551065.124165571.04	0.0286	PHASE 1	0.0650	HAUL1	0.02452	HAUL2
ANNUAL	R596	551065.12	4165591.04	551065.124165591.04	0.0275	PHASE 1	0.0611	HAUL1	0.02328	HAUL2

Health Risk - Dose and Risk Factors and Values

Dose factors

Dose factors for calc	Construction	3rd trimester					source
		3rd trimester	0-2	2-9	10-30	16-70	
Daily Breath Rate (L/kg-day)	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04	dose factors for lookup in risk calcs
	Recreational	8,576-06	4,296-05	2,296-05	8,576-06	8,216-06	dose factors for lookup in risk calcs
	School	2,846-05	1,486-04	6,211-05	2,981-05	2,846-05	dose factors for lookup in risk calcs
	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for 2-9 per BAAQMD guidance
	Recreational	240	1200	640	240	230	OEHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SNUAPCO's draft guidance
A	School	240	1200	520	240	230	BAAQMD guidance - 95th percentile
	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	Recreational	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 3 years
	School	0.12	0.12	0.12	0.12	0.12	BAAQMD Guidance - 180 days/yr, 6 hours/day
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		1.00	1.00	1.00	1.00	1.00	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Risk factors for calcs		Construction		Residential		1.10E+01	11.00	3.90E+00	1.10E+00	1.10E+00	without ED, ED/AT calculation in risk calc	
		Recreational		1.10E+01	1.10E+01	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00		
		school		1.10E+01	1.10E+01	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00		
CP, DPM (mg/kg-day) ¹				1.1	1.1	1.1	1.1	1.1	1.1	1.1	OEHA 2015, Table 7.1	
Average Age Sensitivity Factor				10	10	3	1	1	1	1	OEHA 2015, Table 8.3	
AT, Average Time (days)				70	70	70	70	70	70	70	Averaging time for lifetime cancer risk	
FAH				1.00	1.00	1.00	1.00	1.00	1.00	1.00	OEHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth	
ED, Exposure Duration (years)				see ED calculation sheet								
Chronic Inhalation Reference Exposure Level, respiratory, DPM				5								

http://www.baaqmd.gov/?media/files/planning-and-research/rules-and-reg/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Utilized rate reasoning, see Section 3.9.2 of CAPCOA's HRA Guide.

An alternative approach is applying utilized emission rate and summation concepts, which drastically reduce the computational time for large multiple pollutant projects.

All chemical concentration levels vary linearly with their source release rate

This concentration at the receptor can then be multiplied by the actual rates (actual g/s (x) utilized 1 g/s rates)

DPM HRA Factors and values - Operations

Dose factors

Factors for calcs -->	Construction	3rd trimester					source
		Existing Student	2,496-03	1,331-03	4,971-04	4,768-04	
		New Student	4,971-04	2,496-03	1,331-03	4,971-04	4,768-04
		Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04
		Offsite Student	4,971-04	2,496-03	1,331-03	4,971-04	4,768-04
Daily Breath Rate (L/kg-day)	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for other age groups
	School	240	1200	640	240	230	SNUAPCO for 3rd tri; 95th percentile for all
A	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	School	0.49	0.49	0.49	0.49	0.49	180 days/yr
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		4.20	4.20	4.20	4.20	4.20	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Factors for calcs -->		Existing Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		New Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		Offsite Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		Residential	3.93E-02	3.14E-01	0.00E+00	2.20E-01	0.00E+00	
		CP, DPM (mg/kg-day) ¹	1.1	1.1	1.1	1.1	1.1	OEIHA 2015, Table 7.1
	Average Age Sensitivity Factor	10	10	3	1	1	OEIHA 2015, Table 8.3	
	AT, Average Time (days)	70	70	70	70	70	Averaging time for lifetime cancer risk	
	FAH	1.00	1.00	1.00	1.00	1.00	OEIHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth	
	ED, Exposure Duration (years)							
	Buses	New Wilson/Central Students						Grades 1-8; ages 6-13
	Roadway	Residential	0.25	2.00		14.00		Equation 8.2.4.8, OEIHA 2015; 30 years total
		New Wilson/Central Students						Equation 8.2.4.8, OEIHA 2015
		Residential						Equation 8.2.4.8, OEIHA 2015; 30 years total

Chronic Inhalation Reference Exposure Level, respiratory, DPM	5
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1hr to annual

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Project-Level Unmitigated PM2.5 during Construction

Receptor	PM2.5
Residential	0.02
BAAQMD Threshold	0.3
Exceed BAAQMD Threshold?	No

Onsite PM2.5 Exhaust Emissions (pounds per hour* calculation)

*can aermod using 1 lbs/hr

Building	Start	End	Working Days
Phase I	1/1/2020	6/2/2022	883

Dates by Bin

	3rd tri	0<2	2<9
start	1/1/2020	4/2/2020	4/3/2022
end	4/3/2020	4/3/2022	4/3/2023

Working days by phase	start	end	2020	2021	2022
Phase I	1/1/2020	6/2/2022	1/1/2020	12/31/2020	1/1/2021 12/31/2021 1/1/2022 6/2/2022

Work days by bin	2020	2021	2022
Phase I	365	365	152

Annual Tons	Start	End	PM2.5 Ex Tons Total	2020	2021	2022
Building	1/1/2020	6/2/2022	0.7	0.356	0.252	0.107
Phase I	1/1/2020	6/2/2022				

Annual Pounds	Start	End	PM2.5 Ex Lbs Total	2020	2021	2022
Building	1/1/2020	6/2/2022	1420	711	504	214
Phase I	1/1/2020	6/2/2022				

Lbs per day by year	2020	2021	2022
Phase I	1.95	1.38	1.40

TRUE

Apportioning of Emissions by Bin

3rd tri	bin range>	1/1/2020	4/1/2020	working days	lbs/total in bin	lbs/day	lbs/hr	TRUE	ED		
	Phase I	1/1/2020	4/1/2020		81	177.3	1.95	0.1299	0.249		
0<2	bin range>	4/2/2020	4/2/2022	working days	2020	2021	2022	lbs/total in bin	lbs/day	lbs/hr	ED
	Phase I	4/2/2020	4/2/2022		730	273	365	91	1164	1.5944764	0.1063
2>9	bin range>	4/3/2022	4/1/2023	working days	lbs/total in bin	lbs/day	lbs/hr				
	Phase I	4/3/2022	6/2/2022		80	88	1.4604884	0.0974			

for HRA Sheet

		3rd tri	0<2	2<9
lb/hr	Phase I	0.12989	0.10630	0.09737
ED	Phase I	0.25	2.00	0.16

Defaults/Constants

Calendar

2020	2021	2022
1/1/2020	1/1/2021	1/1/2022
12/31/2020	12/31/2021	12/31/2022

Exposure Durations

Metric	3rd tri	0<2	2<9	2<16	16<30
max days	91.25	730	2555	5110	5110
hrs	0.25	2	7	14	14

Conversions

365 workdays per year
365 Operational days/year
86400 Seconds per day
907184.74 g per ton
2000 ton to lbs
15 day to hour (7AM to 10PM)
1000000 Million

Release Height (DPM) 3 m
Vertical Dimension (DPM) 0.6977 m

Offsite PM2.5 Exhaust Emissions (pounds per hour* calculation)

*ran aermod using 1 lbs/hr

Building	Start	End	Working Days
Haul Route	1/1/2020	6/2/2022	883

Dates by Bin			
	3rd tri	0>2	2>9
start	1/1/2020	4/2/2020	4/3/2022
end	4/1/2020	4/2/2022	4/1/2029

Working days by phase							
	start	end	2020	2021	2022		
Haul	1/1/2020	6/2/2022	1/1/2020	12/31/2020	1/1/2021	12/31/2021	1/1/2022 6/2/2022

Work days by bin		
	2020	2021 2022
Haul	365	365 152

Annual Tons			Unmitigated-Hauling			
Building	Start	End	PM2.5 Ex Tons Total	2020	2021	2022
Haul	1/1/2020	6/2/2022	0.002	0.002	0.000	0.000

Annual Pounds						
Building	Start	End	PM2.5 Ex Lbs Total	2020	2021	2022
Haul	1/1/2020	6/2/2022	4	4	0	0

Lbs per day by year						
	2020	2021	2022			
Haul	0.01	0.00	0.00	TRUE		

Apportioning of Emissions by Bin											TRUE	ED
3rd Tri	bin range->		1/1/2020	4/1/2020	working days	lbs/total in bin	lbs/day	lbs/hr				
	EC		1/1/2020	4/1/2020	91	1.0	0.01	0.0010				0.249
0>2	bin range->		4/2/2020	4/2/2022	working days	2020	2021	2022	lbs/total in bin	lbs/day	lbs/hr	ED
	EC		4/2/2020	4/2/2022	730	273	365	91	3	0.0043613	0.0004	2.000
2>9	bin range->		4/3/2022	4/1/2029	working days	lbs/total in bin	lbs/day	lbs/hr			ED	
			-	4/3/2022	6/2/2022	60	0.126	0.00	0.0000			0.164

for HRA Sheet				
		3rd tri	0<2	2<9
lb/hr	Haul	0.00105	0.00044	0.00000
ED	Haul	0.25	2.00	0.16

Defaults/Constants

Calendar			
2020	2021	2022	2023
1/1/2020	1/1/2021	1/1/2022	1/1/2023
12/31/2020	12/31/2021	12/31/2022	12/31/2023

Exposure Durations					
Metric	3rd tri	0<2	2<9	2<16	16<30
max days	91.25	730	2555	5110	5110
ysr	0.25	2	7	14	14

Conversions

365 workdays per year
365 Operational days/year
86400 Seconds per day
907184.74 g per ton
2000 ton to lbs
10 day to hour (7AM to 4PM)
1000000 Million

Release Height (DPM) 3 m
Vertical Dimension (DPM) 0.6977 m

Period	ID	X	Y	concat	Concentration [ug/m ³]	PHASE	Concentration [ug/m ³]	Haul1	Concentration [ug/m ³]	Haul2	Concentration [ug/m ³]	Building	Concentration [ug/m ³]	Building
ANNUAL	R1	550876.81	416433.7	550876.81 416433.7	0.0677	PHASE 1	0.0523	HAUL1	0.0296	HAUL2	0.0305			
ANNUAL	R2	550896.81	416435.7	550896.81 416435.7	0.0615	PHASE 1	0.0574	HAUL1	0.03305	HAUL2				
ANNUAL	R3	550876.81	416437.7	550876.81 416437.7	0.0690	PHASE 1	0.0625	HAUL1	0.03564	HAUL2				
ANNUAL	R4	550936.81	416437.7	550936.81 416437.7	0.0658	PHASE 1	0.0637	HAUL1	0.03759	HAUL2				
ANNUAL	R5	550876.81	416439.7	550876.81 416439.7	0.0764	PHASE 1	0.0691	HAUL1	0.03946	HAUL2				
ANNUAL	R6	550916.81	416439.7	550916.81 416439.7	0.0743	PHASE 1	0.0703	HAUL1	0.0409	HAUL2				
ANNUAL	R7	550956.81	416439.7	550956.81 416439.7	0.0735	PHASE 1	0.0715	HAUL1	0.04188	HAUL2				
ANNUAL	R8	550996.81	416439.7	550996.81 416439.7	0.0713	PHASE 1	0.0710	HAUL1	0.04238	HAUL2				
ANNUAL	R9	551036.81	416439.7	551036.81 416439.7	0.0710	PHASE 1	0.0709	HAUL1	0.04247	HAUL2				
ANNUAL	R10	550896.81	416441.7	550896.81 416441.7	0.0842	PHASE 1	0.0779	HAUL1	0.04475	HAUL2				
ANNUAL	R11	550936.81	416441.7	550936.81 416441.7	0.0822	PHASE 1	0.0791	HAUL1	0.04585	HAUL2				
ANNUAL	R12	550976.81	416441.7	550976.81 416441.7	0.0806	PHASE 1	0.0795	HAUL1	0.04635	HAUL2				
ANNUAL	R13	551016.81	416441.7	551016.81 416441.7	0.0798	PHASE 1	0.0794	HAUL1	0.04631	HAUL2				
ANNUAL	R14	551056.81	416441.7	551056.81 416441.7	0.0798	PHASE 1	0.0791	HAUL1	0.04586	HAUL2				
ANNUAL	R15	550876.81	416443.7	550876.81 416443.7	0.0958	PHASE 1	0.0866	HAUL1	0.0493	HAUL2				
ANNUAL	R16	550916.81	416443.7	550916.81 416443.7	0.0939	PHASE 1	0.0887	HAUL1	0.05056	HAUL2				
ANNUAL	R17	550956.81	416443.7	550956.81 416443.7	0.0919	PHASE 1	0.0896	HAUL1	0.05101	HAUL2				
ANNUAL	R18	550996.81	416443.7	550996.81 416443.7	0.0905	PHASE 1	0.0890	HAUL1	0.0508	HAUL2				
ANNUAL	R19	551036.81	416443.7	551036.81 416443.7	0.0899	PHASE 1	0.0892	HAUL1	0.05009	HAUL2				
ANNUAL	R20	551076.81	416443.7	551076.81 416443.7	0.0901	PHASE 1	0.0884	HAUL1	0.04903	HAUL2				
ANNUAL	R21	551116.81	416443.7	551116.81 416443.7	0.0905	PHASE 1	0.0873	HAUL1	0.04773	HAUL2				
ANNUAL	R22	550896.81	416445.7	550896.81 416445.7	0.1077	PHASE 1	0.1001	HAUL1	0.05621	HAUL2				
ANNUAL	R23	550936.81	416445.7	550936.81 416445.7	0.1096	PHASE 1	0.1056	HAUL1	0.05657	HAUL2				
ANNUAL	R24	550976.81	416445.7	550976.81 416445.7	0.1036	PHASE 1	0.1021	HAUL1	0.05609	HAUL2				
ANNUAL	R25	551016.81	416445.7	551016.81 416445.7	0.1023	PHASE 1	0.1016	HAUL1	0.05502	HAUL2				
ANNUAL	R26	551056.81	416445.7	551056.81 416445.7	0.1038	PHASE 1	0.1005	HAUL1	0.05356	HAUL2				
ANNUAL	R27	551096.81	416445.7	551096.81 416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05186	HAUL2				
ANNUAL	R28	551136.81	416445.7	551136.81 416445.7	0.1016	PHASE 1	0.0986	HAUL1	0.05006	HAUL2				
ANNUAL	R29	550876.81	416447.7	550876.81 416447.7	0.1241	PHASE 1	0.1241	HAUL1	0.06313	HAUL2				
ANNUAL	R30	550936.81	416447.7	550936.81 416447.7	0.1211	PHASE 1	0.1174	HAUL1	0.06297	HAUL2				
ANNUAL	R31	550976.81	416447.7	550976.81 416447.7	0.1186	PHASE 1	0.1174	HAUL1	0.06168	HAUL2				
ANNUAL	R32	551036.81	416447.7	551036.81 416447.7	0.1161	PHASE 1	0.1154	HAUL1	0.05882	HAUL2				
ANNUAL	R33	551076.81	416447.7	551076.81 416447.7	0.1153	PHASE 1	0.1132	HAUL1	0.0566	HAUL2				
ANNUAL	R34	551116.81	416447.7	551116.81 416447.7	0.1185	PHASE 1	0.1103	HAUL1	0.0543	HAUL2				
ANNUAL	R35	551156.81	416447.7	551156.81 416447.7	0.1134	PHASE 1	0.1064	HAUL1	0.05201	HAUL2				
ANNUAL	R36	550916.81	416449.7	550916.81 416449.7	0.1414	PHASE 1	0.1364	HAUL1	0.07101	HAUL2				
ANNUAL	R37	550976.81	416449.7	550976.81 416449.7	0.1367	PHASE 1	0.1364	HAUL1	0.06773	HAUL2				
ANNUAL	R38	551016.81	416449.7	551016.81 416449.7	0.1340	PHASE 1	0.1342	HAUL1	0.06497	HAUL2				
ANNUAL	R39	551096.81	416449.7	551096.81 416449.7	0.1302	PHASE 1	0.1271	HAUL1	0.05913	HAUL2				
ANNUAL	R40	551136.81	416449.7	551136.81 416449.7	0.1281	PHASE 1	0.1281	HAUL1	0.05629	HAUL2				
ANNUAL	R41	550876.81	416455.7	550876.81 416455.7	0.0626	PHASE 1	0.0570	HAUL1	0.03239	HAUL2				
ANNUAL	R42	550936.81	416455.7	550936.81 416455.7	0.0594	PHASE 1	0.0578	HAUL1	0.03423	HAUL2				
ANNUAL	R43	550896.81	416437.7	550896.81 416437.7	0.0678	PHASE 1	0.0630	HAUL1	0.03636	HAUL2				
ANNUAL	R44	550956.81	416437.7	550956.81 416437.7	0.0650	PHASE 1	0.0638	HAUL1	0.03808	HAUL2				
ANNUAL	R45	550896.81	416439.7	550896.81 416439.7	0.0753	PHASE 1	0.0698	HAUL1	0.04023	HAUL2				
ANNUAL	R46	550936.81	416439.7	550936.81 416439.7	0.0733	PHASE 1	0.0707	HAUL1	0.04145	HAUL2				
ANNUAL	R47	550976.81	416439.7	550976.81 416439.7	0.0718	PHASE 1	0.0710	HAUL1	0.04219	HAUL2				
ANNUAL	R48	551016.81	416439.7	551016.81 416439.7	0.0711	PHASE 1	0.0710	HAUL1	0.04247	HAUL2				
ANNUAL	R49	550876.81	416441.7	550876.81 416441.7	0.0853	PHASE 1	0.0770	HAUL1	0.04396	HAUL2				
ANNUAL	R50	550916.81	416441.7	550916.81 416441.7	0.0832	PHASE 1	0.0786	HAUL1	0.04538	HAUL2				
ANNUAL	R51	550956.81	416441.7	550956.81 416441.7	0.0813	PHASE 1	0.0794	HAUL1	0.04513	HAUL2				
ANNUAL	R52	550996.81	416441.7	550996.81 416441.7	0.0801	PHASE 1	0.0795	HAUL1	0.04639	HAUL2				
ANNUAL	R53	551036.81	416441.7	551036.81 416441.7	0.0797	PHASE 1	0.0793	HAUL1	0.04613	HAUL2				
ANNUAL	R54	551076.81	416441.7	551076.81 416441.7	0.0801	PHASE 1	0.0788	HAUL1	0.04551	HAUL2				
ANNUAL	R55	550896.81	416443.7	550896.81 416443.7	0.0949	PHASE 1	0.0878	HAUL1	0.05003	HAUL2				
ANNUAL	R56	550936.81	416443.7	550936.81 416443.7	0.0928	PHASE 1	0.0893	HAUL1	0.05088	HAUL2				
ANNUAL	R57	550976.81	416443.7	550976.81 416443.7	0.0911	PHASE 1	0.0897	HAUL1	0.05009	HAUL2				
ANNUAL	R58	551016.81	416443.7	551016.81 416443.7	0.0901	PHASE 1	0.0895	HAUL1	0.0505	HAUL2				
ANNUAL	R59	551056.81	416443.7	551056.81 416443.7	0.0899	PHASE 1	0.0889	HAUL1	0.0496	HAUL2				
ANNUAL	R60	551096.81	416443.7	551096.81 416443.7	0.0903	PHASE 1	0.0879	HAUL1	0.0484	HAUL2				
ANNUAL	R61	550876.81	416445.7	550876.81 416445.7	0.1085	PHASE 1	0.0985	HAUL1	0.05563	HAUL2				
ANNUAL	R62	550916.81	416445.7	550916.81 416445.7	0.1067	PHASE 1	0.1062	HAUL1	0.05651	HAUL2				
ANNUAL	R63	550956.81	416445.7	550956.81 416445.7	0.1045	PHASE 1	0.1022	HAUL1	0.05642	HAUL2				
ANNUAL	R64	550996.81	416445.7	550996.81 416445.7	0.1028	PHASE 1	0.1019	HAUL1	0.05562	HAUL2				
ANNUAL	R65	551036.81	416445.7	551036.81 416445.7	0.1019	PHASE 1	0.1011	HAUL1	0.05433	HAUL2				
ANNUAL	R66	551076.81	416445.7	551076.81 416445.7	0.1017	PHASE 1	0.0998	HAUL1	0.05274	HAUL2				
ANNUAL	R67	551116.81	416445.7	551116.81 416445.7	0.1017	PHASE 1	0.0999	HAUL1	0.05097	HAUL2				
ANNUAL	R68	551156.81	416445.7	551156.81 416445.7	0.1051	PHASE 1	0.0951	HAUL1	0.04913	HAUL2				
ANNUAL	R69	550916.81	416447.7	550916.81 416447.7	0.1223	PHASE 1	0.1168	HAUL1	0.06331	HAUL2				
ANNUAL	R70	550956.81	416447.7	550956.81 416447.7	0.1198	PHASE 1	0.1177	HAUL1	0.06242	HAUL2				
ANNUAL	R71	550996.81	416447.7	550996.81 416447.7	0.1176	PHASE 1	0.1169	HAUL1	0.06082	HAUL2				
ANNUAL	R72	551056.81	416447.7	551056.81 416447.7	0.1157	PHASE 1	0.1144	HAUL1	0.05773	HAUL2				
ANNUAL	R73	551096.81	416447.7	551096.81 416447.7	0.1149	PHASE 1	0.1149	HAUL1	0.05545	HAUL2				
ANNUAL	R74	551136.81	416447.7	551136.81 416447.7	0.1140	PHASE 1	0.1085	HAUL1	0.05319	HAUL2				
ANNUAL	R75	551176.81	416447.7	551176.81 416447.7	0.1125	PHASE 1	0.1041	HAUL1	0.05087	HAUL2				
ANNUAL	R76	550956.81	416449.7	550956.81 416449.7	0.1383	PHASE 1	0.1370	HAUL1	0.06898	HAUL2				
ANNUAL	R77	550996.81	416449.7	550996.81 416449.7	0.1353	PHASE 1	0.1354	HAUL1	0.06638	HAUL2				
ANNUAL	R78	551076.81	416449.7	551076.81 416449.7	0.1311	PHASE 1	0.1292	HAUL1	0.06059	HAUL2				
ANNUAL	R79	551116.81	416449.7	551116.81 416449.7	0.1291	PHASE 1	0.1291	HAUL1	0.05769	HAUL2				
ANNUAL	R80	551156.81	416449.7	551156.81 416449.7	0.1268	PHASE 1	0.1194	HAUL1	0.05491	HAUL2				
ANNUAL	R81	551176.81	416449.7	551176.81 416449.7	0.1253	PHASE 1	0.1163	HAUL1	0.05356	HAUL2				
ANNUAL	R82	550956.81	416451.7	550956.81 416451.7	0.1610	PHASE 1	0.1614	HAUL1	0.07607	HAUL2				
ANNUAL	R83	550996.81	416451.7	550996.81 416451.7	0.1566	PHASE 1	0.1583	HAUL1	0.07224	HAUL2				
ANNUAL	R84	551036.81	416451.7	551036.81 416451.7	0.1529	PHASE 1	0.1537	HAUL1	0.06889	HAUL2				
ANNUAL	R85	551076.81	41											

ANNUAL	R138	551236.81	4164551.7	551236.814164551.7	0.1563	PHASE 1	0.1423	HAUL1	0.05587	HAUL2
ANNUAL	R139	551076.81	4164571.7	551076.814164571.7	0.2261	PHASE 1	0.2304	HAUL1	0.0768	HAUL2
ANNUAL	R140	551116.81	4164571.7	551116.814164571.7	0.2107	PHASE 1	0.2124	HAUL1	0.2207	HAUL2
ANNUAL	R141	551176.81	4164571.7	551176.814164571.7	0.1915	PHASE 1	0.1826	HAUL1	0.06395	HAUL2
ANNUAL	R142	551216.81	4164571.7	551216.814164571.7	0.1773	PHASE 1	0.1650	HAUL1	0.05974	HAUL2
ANNUAL	R143	551276.81	4164571.7	551276.814164571.7	0.1570	PHASE 1	0.1416	HAUL1	0.05421	HAUL2
ANNUAL	R144	551176.81	4164591.7	551176.814164591.7	0.2121	PHASE 1	0.2043	HAUL1	0.06632	HAUL2
ANNUAL	R145	551216.81	4164591.7	551216.814164591.7	0.1937	PHASE 1	0.1825	HAUL1	0.06172	HAUL2
ANNUAL	R146	551256.81	4164591.7	551256.814164591.7	0.1761	PHASE 1	0.1761	HAUL1	0.05792	HAUL2
ANNUAL	R147	551156.81	4164611.7	551156.814164611.7	0.2464	PHASE 1	0.2434	HAUL1	0.07124	HAUL2
ANNUAL	R148	551196.81	4164611.7	551196.814164611.7	0.2222	PHASE 1	0.2146	HAUL1	0.06597	HAUL2
ANNUAL	R149	551256.81	4164611.7	551256.814164611.7	0.1899	PHASE 1	0.1787	HAUL1	0.05918	HAUL2
ANNUAL	R150	551176.81	4164631.7	551176.814164631.7	0.2574	PHASE 1	0.2550	HAUL1	0.07057	HAUL2
ANNUAL	R151	551236.81	4164631.7	551236.814164631.7	0.2035	PHASE 1	0.2154	HAUL1	0.06286	HAUL2
ANNUAL	R152	551276.81	4164631.7	551276.814164631.7	0.1921	PHASE 1	0.1839	HAUL1	0.05848	HAUL2
ANNUAL	R153	551276.81	4164651.7	551276.814164651.7	0.2035	PHASE 1	0.2006	HAUL1	0.05966	HAUL2
ANNUAL	R154	550384.79	4164911.52	550384.794164911.52	0.0577	PHASE 1	0.0239	HAUL1	0.23009	HAUL2
ANNUAL	R155	550164.79	4164951.52	550164.794164951.52	0.0245	PHASE 1	0.0131	HAUL1	0.28728	HAUL2
ANNUAL	R156	550405.01	4165031.9	550405.014165031.9	0.0591	PHASE 1	0.0245	HAUL1	0.41312	HAUL2
ANNUAL	R157	550465.01	4165031.9	550465.014165031.9	0.0935	PHASE 1	0.0295	HAUL1	0.72657	HAUL2
ANNUAL	R158	550545.01	4165031.9	550545.014165031.9	0.1201	PHASE 1	0.0384	HAUL1	2.22488	HAUL2
ANNUAL	R159	550605.01	4165031.9	550605.014165031.9	0.1650	PHASE 1	0.0469	HAUL1	0.68248	HAUL2
ANNUAL	R160	550645.01	4165031.9	550645.014165031.9	0.1986	PHASE 1	0.0535	HAUL1	0.47512	HAUL2
ANNUAL	R161	550665.01	4165031.9	550665.014165031.9	0.2152	PHASE 1	0.0569	HAUL1	0.41111	HAUL2
ANNUAL	R162	550705.01	4165031.9	550705.014165031.9	0.2453	PHASE 1	0.0642	HAUL1	0.32044	HAUL2
ANNUAL	R163	550405.01	4165051.9	550405.014165051.9	0.0581	PHASE 1	0.0243	HAUL1	0.45625	HAUL2
ANNUAL	R164	550465.01	4165051.9	550465.014165051.9	0.0765	PHASE 1	0.0291	HAUL1	0.87658	HAUL2
ANNUAL	R165	550545.01	4165051.9	550545.014165051.9	0.1136	PHASE 1	0.0375	HAUL1	1.60752	HAUL2
ANNUAL	R166	550585.01	4165051.9	550585.014165051.9	0.1383	PHASE 1	0.0427	HAUL1	0.77403	HAUL2
ANNUAL	R167	550665.01	4165051.9	550665.014165051.9	0.1924	PHASE 1	0.0548	HAUL1	0.38766	HAUL2
ANNUAL	R168	550705.01	4165051.9	550705.014165051.9	0.2157	PHASE 1	0.0615	HAUL1	0.30509	HAUL2
ANNUAL	R169	550745.01	4165051.9	550745.014165051.9	0.2324	PHASE 1	0.0686	HAUL1	0.24847	HAUL2
ANNUAL	R170	550545.01	4165071.9	550545.014165071.9	0.1076	PHASE 1	0.0367	HAUL1	1.26849	HAUL2
ANNUAL	R171	550585.01	4165071.9	550585.014165071.9	0.1288	PHASE 1	0.0416	HAUL1	0.69455	HAUL2
ANNUAL	R172	550685.01	4165071.9	550685.014165071.9	0.1832	PHASE 1	0.0560	HAUL1	0.32449	HAUL2
ANNUAL	R173	550725.01	4165071.9	550725.014165071.9	0.1990	PHASE 1	0.0624	HAUL1	0.26186	HAUL2
ANNUAL	R174	550585.01	4165091.9	550585.014165091.9	0.0935	PHASE 1	0.0339	HAUL1	1.64006	HAUL2
ANNUAL	R175	550565.01	4165091.9	550565.014165091.9	0.1109	PHASE 1	0.0382	HAUL1	0.78735	HAUL2
ANNUAL	R176	550725.01	4165091.9	550725.014165091.9	0.1777	PHASE 1	0.0599	HAUL1	0.24959	HAUL2
ANNUAL	R177	550525.01	4165111.9	550525.014165111.9	0.0891	PHASE 1	0.0332	HAUL1	1.2922	HAUL2
ANNUAL	R178	550565.01	4165111.9	550565.014165111.9	0.1044	PHASE 1	0.0373	HAUL1	0.70539	HAUL2
ANNUAL	R179	550531.9	4165131.9	550531.94165131.9	0.0787	PHASE 1	0.0281	HAUL1	1.65918	HAUL2
ANNUAL	R180	550545.01	4165131.9	550545.014165131.9	0.0916	PHASE 1	0.0345	HAUL1	0.79911	HAUL2
ANNUAL	R181	550585.01	4165131.9	550585.014165131.9	0.1054	PHASE 1	0.0386	HAUL1	0.53169	HAUL2
ANNUAL	R182	550625.01	4165131.9	550625.014165131.9	0.1193	PHASE 1	0.0430	HAUL1	0.39366	HAUL2
ANNUAL	R183	550705.01	4165131.9	550705.014165131.9	0.1417	PHASE 1	0.0529	HAUL1	0.24813	HAUL2
ANNUAL	R184	550505.01	4165151.9	550505.014165151.9	0.0755	PHASE 1	0.0303	HAUL1	1.31882	HAUL2
ANNUAL	R185	550545.01	4165151.9	550545.014165151.9	0.0869	PHASE 1	0.0338	HAUL1	0.7135	HAUL2
ANNUAL	R186	550605.01	4165151.9	550605.014165151.9	0.1050	PHASE 1	0.0397	HAUL1	0.42117	HAUL2
ANNUAL	R187	550665.01	4165151.9	550665.014165151.9	0.1215	PHASE 1	0.0464	HAUL1	0.28852	HAUL2
ANNUAL	R188	550705.01	4165151.9	550705.014165151.9	0.1297	PHASE 1	0.0512	HAUL1	0.23426	HAUL2
ANNUAL	R189	550505.01	4165171.9	550505.014165171.9	0.0723	PHASE 1	0.0298	HAUL1	1.09069	HAUL2
ANNUAL	R190	550545.01	4165171.9	550545.014165171.9	0.0825	PHASE 1	0.0351	HAUL1	0.64183	HAUL2
ANNUAL	R191	550605.01	4165171.9	550605.014165171.9	0.0984	PHASE 1	0.0387	HAUL1	0.39005	HAUL2
ANNUAL	R192	550665.01	4165171.9	550665.014165171.9	0.1124	PHASE 1	0.0450	HAUL1	0.27011	HAUL2
ANNUAL	R193	550705.01	4165171.9	550705.014165171.9	0.1193	PHASE 1	0.0495	HAUL1	0.22039	HAUL2
ANNUAL	R194	550545.01	4165191.9	550545.014165191.9	0.0785	PHASE 1	0.0324	HAUL1	0.57868	HAUL2
ANNUAL	R195	550605.01	4165191.9	550605.014165191.9	0.0923	PHASE 1	0.0378	HAUL1	0.35974	HAUL2
ANNUAL	R196	550645.01	4165191.9	550645.014165191.9	0.1007	PHASE 1	0.0416	HAUL1	0.2381	HAUL2
ANNUAL	R197	550685.01	4165191.9	550685.014165191.9	0.1075	PHASE 1	0.0458	HAUL1	0.2273	HAUL2
ANNUAL	R198	550585.01	4165211.9	550585.014165211.9	0.0829	PHASE 1	0.0351	HAUL1	0.37808	HAUL2
ANNUAL	R199	550625.01	4165211.9	550625.014165211.9	0.0906	PHASE 1	0.0386	HAUL1	0.29137	HAUL2
ANNUAL	R200	550665.01	4165211.9	550665.014165211.9	0.0972	PHASE 1	0.0424	HAUL1	0.23358	HAUL2
ANNUAL	R201	550685.01	4165031.9	550685.014165031.9	0.2309	PHASE 1	0.2309	HAUL1	0.3609	HAUL2
ANNUAL	R202	550725.01	4165031.9	550725.014165031.9	0.2578	PHASE 1	0.0680	HAUL1	0.28719	HAUL2
ANNUAL	R203	550445.01	4165051.9	550445.014165051.9	0.0696	PHASE 1	0.0274	HAUL1	0.64461	HAUL2
ANNUAL	R204	550485.01	4165051.9	550485.014165051.9	0.0842	PHASE 1	0.0310	HAUL1	1.47456	HAUL2
ANNUAL	R205	550565.01	4165051.9	550565.014165051.9	0.1255	PHASE 1	0.0400	HAUL1	1.03698	HAUL2
ANNUAL	R206	550645.01	4165051.9	550645.014165051.9	0.1792	PHASE 1	0.0516	HAUL1	0.44477	HAUL2
ANNUAL	R207	550685.01	4165051.9	550685.014165051.9	0.2047	PHASE 1	0.0541	HAUL1	0.34218	HAUL2
ANNUAL	R208	550725.01	4165051.9	550725.014165051.9	0.2251	PHASE 1	0.0650	HAUL1	0.27434	HAUL2
ANNUAL	R209	550525.01	4165071.9	550525.014165071.9	0.0980	PHASE 1	0.0345	HAUL1	2.26722	HAUL2
ANNUAL	R210	550565.01	4165071.9	550565.014165071.9	0.1179	PHASE 1	0.0391	HAUL1	0.89303	HAUL2
ANNUAL	R211	550605.01	4165071.9	550605.014165071.9	0.1401	PHASE 1	0.0442	HAUL1	0.56996	HAUL2
ANNUAL	R212	550705.01	4165071.9	550705.014165071.9	0.1918	PHASE 1	0.0591	HAUL1	0.28937	HAUL2
ANNUAL	R213	550745.01	4165071.9	550745.014165071.9	0.2047	PHASE 1	0.0657	HAUL1	0.23737	HAUL2
ANNUAL	R214	550545.01	4165091.9	550545.014165091.9	0.1019	PHASE 1	0.0360	HAUL1	1.05595	HAUL2
ANNUAL	R215	550585.01	4165091.9	550585.014165091.9	0.1202	PHASE 1	0.0406	HAUL1	0.63086	HAUL2
ANNUAL	R216	550505.01	4165111.9	550505.014165111.9	0.0821	PHASE 1	0.0314	HAUL1	2.31272	HAUL2
ANNUAL	R217	550545.01	4165111.9	550545.014165111.9	0.0966	PHASE 1	0.0352	HAUL1	0.9083	HAUL2
ANNUAL	R218	550585.01	4165111.9	550585.014165111.9	0.1095	PHASE 1	0.0415	HAUL1	0.57777	HAUL2
ANNUAL	R219	550525.01	4165131.9	550525.014165131.9	0.0850	PHASE 1	0.0326	HAUL1	1.07378	HAUL2
ANNUAL	R220	550565.01	4165131.9	550565.014165131.9	0.0984	PHASE 1	0.0365	HAUL1	0.63873	HAUL2
ANNUAL	R221	550605.01	4165131.9	550605.014165131.9	0.1124	PHASE 1	0.0408	HAUL1	0.4537	HAUL2
ANNUAL	R222	550685.01	4165131.9	550685.014165131.9	0.1371	PHASE 1	0.0503	HAUL1	0.27504	HAUL2
ANNUAL	R223	550485.01	4165151.9	550485.014165151.9	0.0702	PHASE 1	0.0287	HAUL1	2.36716	HAUL2
ANNUAL	R224	550525.01	4165151.9	550525.014165151.9	0.0811	PHASE 1	0.0320	HAUL1	0.92127	HAUL2
ANNUAL	R225	550565.01	4165151.9	550565.014165151.9	0.0929	PHASE 1	0.0357	HAUL1	0.58202	HAUL2
ANNUAL	R226	550625.01	4165151.9	550625.014165151.9	0.1109	PHASE 1	0.0419	HAUL1	0.36724	HAUL2
ANNUAL	R227	550685.01	4165151.9	550685.014165151.9	0.1259	PHASE 1	0.0487	HAUL1	0.25907	HAUL2
ANNUAL	R228	550485.01	4165171.9	550485.014165171.9	0.0675	PHASE 1	0.0282	HAUL1	1.70262	HAUL2
ANNUAL	R229	550525.01	4165171.9	550525.014165171.9	0.0773	PHASE 1	0.0314	HAUL1	0.80774	HAUL2
ANNUAL	R230	550585.01	4165171.9	550585.014165171.9	0.0932	PHASE 1	0.0368	HAUL1	0.45136	HAUL2
ANNUAL	R231	550625.01	4165171.9	550625.014165171.9	0.1034	PHASE 1	0.0407	HAUL1	0.34156	HAUL2
ANNUAL	R232	550685.01	4165171.9	5						

ANNUAL	R277	550865.45	4165372.15	550865.454165372.15	0.0605	PHASE 1	0.0524	HAUL1	0.0633	HAUL2
ANNUAL	R278	550405.6	4164911.75	550405.64164911.75	0.0641	PHASE 1	0.0256	HAUL1	0.24757	HAUL2
ANNUAL	R279	550405.6	4164931.75	550405.64164931.75	0.0631	PHASE 1	0.0265	HAUL1	0.24895	HAUL2
ANNUAL	R280	550465.6	4164931.75	550465.64164931.75	0.0890	PHASE 1	0.0314	HAUL1	0.38145	HAUL2
ANNUAL	R281	550625.01	4165231.9	550625.014165231.9	0.0851	PHASE 1	0.0376	HAUL1	0.26673	HAUL2
ANNUAL	R282	550665.01	4165231.9	550665.014165231.9	0.0908	PHASE 1	0.0413	HAUL1	0.21552	HAUL2
ANNUAL	R283	550645.01	4165251.9	550645.014165251.9	0.0827	PHASE 1	0.0384	HAUL1	0.21822	HAUL2
ANNUAL	R284	550685.01	4165251.9	550685.014165251.9	0.0870	PHASE 1	0.0420	HAUL1	0.18035	HAUL2
ANNUAL	R285	550925.45	4165192.15	550925.454165192.15	0.1130	PHASE 1	0.0819	HAUL1	0.09408	HAUL2
ANNUAL	R286	550965.45	4165192.15	550965.454165192.15	0.1109	PHASE 1	0.0945	HAUL1	0.08841	HAUL2
ANNUAL	R287	550905.45	4165212.15	550905.454165212.15	0.1044	PHASE 1	0.0754	HAUL1	0.09463	HAUL2
ANNUAL	R288	550945.45	4165212.15	550945.454165212.15	0.1024	PHASE 1	0.0852	HAUL1	0.08479	HAUL2
ANNUAL	R289	550985.45	4165212.15	550985.454165212.15	0.0991	PHASE 1	0.0984	HAUL1	0.07649	HAUL2
ANNUAL	R290	551045.45	4165232.15	551045.454165232.15	0.0903	PHASE 1	0.0595	HAUL1	0.05621	HAUL2
ANNUAL	R291	550905.45	4165232.15	550905.454165232.15	0.0962	PHASE 1	0.0728	HAUL1	0.08967	HAUL2
ANNUAL	R292	550945.45	4165232.15	550945.454165232.15	0.0939	PHASE 1	0.0824	HAUL1	0.08056	HAUL2
ANNUAL	R293	550985.45	4165232.15	550985.454165232.15	0.0904	PHASE 1	0.0953	HAUL1	0.07285	HAUL2
ANNUAL	R294	551045.45	4165232.15	551045.454165232.15	0.0820	PHASE 1	0.1266	HAUL1	0.06334	HAUL2
ANNUAL	R295	550885.45	4165252.15	550885.454165252.15	0.0898	PHASE 1	0.0666	HAUL1	0.08955	HAUL2
ANNUAL	R296	550925.45	4165252.15	550925.454165252.15	0.0878	PHASE 1	0.0748	HAUL1	0.08039	HAUL2
ANNUAL	R297	550965.45	4165252.15	550965.454165252.15	0.0849	PHASE 1	0.0855	HAUL1	0.07266	HAUL2
ANNUAL	R298	551045.45	4165252.15	551045.454165252.15	0.0751	PHASE 1	0.1237	HAUL1	0.0604	HAUL2
ANNUAL	R299	551085.45	4165252.15	551085.454165252.15	0.0687	PHASE 1	0.1614	HAUL1	0.05551	HAUL2
ANNUAL	R300	550885.45	4165272.15	550885.454165272.15	0.0834	PHASE 1	0.0644	HAUL1	0.08431	HAUL2
ANNUAL	R301	550925.45	4165272.15	550925.454165272.15	0.0813	PHASE 1	0.0644	HAUL1	0.07593	HAUL2
ANNUAL	R302	551025.45	4165272.15	551025.454165272.15	0.0718	PHASE 1	0.1078	HAUL1	0.06503	HAUL2
ANNUAL	R303	551065.45	4165272.15	551065.454165272.15	0.0663	PHASE 1	0.1371	HAUL1	0.05515	HAUL2
ANNUAL	R304	551105.45	4165272.15	551105.454165272.15	0.0606	PHASE 1	0.1907	HAUL1	0.0509	HAUL2
ANNUAL	R305	550885.45	4165292.15	550885.454165292.15	0.0776	PHASE 1	0.0624	HAUL1	0.07919	HAUL2
ANNUAL	R306	550925.45	4165292.15	550925.454165292.15	0.0755	PHASE 1	0.0701	HAUL1	0.07157	HAUL2
ANNUAL	R307	551025.45	4165292.15	551025.454165292.15	0.0664	PHASE 1	0.1047	HAUL1	0.05597	HAUL2
ANNUAL	R308	551065.45	4165292.15	551065.454165292.15	0.0615	PHASE 1	0.1339	HAUL1	0.05248	HAUL2
ANNUAL	R309	550865.45	4165312.15	550865.454165312.15	0.0732	PHASE 1	0.0574	HAUL1	0.07811	HAUL2
ANNUAL	R310	550905.45	4165312.15	550905.454165312.15	0.0715	PHASE 1	0.0640	HAUL1	0.07064	HAUL2
ANNUAL	R311	550945.45	4165312.15	550945.454165312.15	0.0690	PHASE 1	0.0725	HAUL1	0.06428	HAUL2
ANNUAL	R312	551045.45	4165312.15	551045.454165312.15	0.0595	PHASE 1	0.1143	HAUL1	0.05187	HAUL2
ANNUAL	R313	550885.45	4165332.15	550885.454165332.15	0.0671	PHASE 1	0.0686	HAUL1	0.06945	HAUL2
ANNUAL	R314	550925.45	4165332.15	550925.454165332.15	0.0657	PHASE 1	0.0658	HAUL1	0.06325	HAUL2
ANNUAL	R315	551005.45	4165332.15	551005.454165332.15	0.0595	PHASE 1	0.0890	HAUL1	0.05323	HAUL2
ANNUAL	R316	550945.45	4165352.15	550945.454165352.15	0.0603	PHASE 1	0.0679	HAUL1	0.05683	HAUL2
ANNUAL	R317	550885.45	4165372.15	550885.454165372.15	0.0597	PHASE 1	0.0551	HAUL1	0.06055	HAUL2
ANNUAL	R318	550425.6	4164911.75	550425.64164911.75	0.0715	PHASE 1	0.0715	HAUL1	0.27014	HAUL2
ANNUAL	R319	550425.6	4164931.75	550425.64164931.75	0.0705	PHASE 1	0.0272	HAUL1	0.29376	HAUL2
ANNUAL	R320	550485.6	4164931.75	550485.64164931.75	0.1012	PHASE 1	0.0338	HAUL1	0.46001	HAUL2
ANNUAL	R321	550505.6	4164931.75	550505.64164931.75	0.1161	PHASE 1	0.0365	HAUL1	0.58991	HAUL2
ANNUAL	R322	550425.6	4164951.75	550425.64164951.75	0.0695	PHASE 1	0.0270	HAUL1	0.32027	HAUL2
ANNUAL	R323	550525.6	4164951.75	550525.64164951.75	0.1293	PHASE 1	0.0388	HAUL1	1.07899	HAUL2
ANNUAL	R324	550505.6	4164971.75	550505.64164971.75	0.1086	PHASE 1	0.0354	HAUL1	0.85059	HAUL2
ANNUAL	R325	550585.6	4164971.75	550585.64164971.75	0.1901	PHASE 1	0.0479	HAUL1	1.53006	HAUL2
ANNUAL	R326	550625.6	4164971.75	550625.64164971.75	0.2525	PHASE 1	0.0559	HAUL1	0.74118	HAUL2
ANNUAL	R327	550505.6	4164991.75	550505.64164991.75	0.1048	PHASE 1	0.0348	HAUL1	1.08584	HAUL2
ANNUAL	R328	550585.6	4164991.75	550585.64164991.75	0.1748	PHASE 1	0.0465	HAUL1	1.21115	HAUL2
ANNUAL	R329	550625.6	4164991.75	550625.64164991.75	0.2245	PHASE 1	0.0466	HAUL1	0.56597	HAUL2
ANNUAL	R330	550665.6	4164991.75	550665.64164991.75	0.2790	PHASE 1	0.0620	HAUL1	0.46402	HAUL2
ANNUAL	R331	550585.6	4165011.75	550585.64165011.75	0.1614	PHASE 1	0.0452	HAUL1	1.01008	HAUL2
ANNUAL	R332	550625.6	4165011.75	550625.64165011.75	0.2015	PHASE 1	0.0520	HAUL1	0.60639	HAUL2
ANNUAL	R333	550665.6	4165011.75	550665.64165011.75	0.2439	PHASE 1	0.0594	HAUL1	0.43528	HAUL2
ANNUAL	R334	550705.6	4165011.75	550705.64165011.75	0.2836	PHASE 1	0.0673	HAUL1	0.33563	HAUL2
ANNUAL	R335	551378.51	4165172.16	551378.514165172.16	0.0534	PHASE 1	0.0534	HAUL1	0.05816	HAUL2
ANNUAL	R336	551418.51	4165172.16	551418.514165172.16	0.0498	PHASE 1	0.4331	HAUL1	0.03582	HAUL2
ANNUAL	R337	551338.51	4165192.16	551338.514165192.16	0.0524	PHASE 1	1.0191	HAUL1	0.09399	HAUL2
ANNUAL	R338	551378.51	4165192.16	551378.514165192.16	0.0490	PHASE 1	0.5784	HAUL1	0.03695	HAUL2
ANNUAL	R339	551418.51	4165192.16	551418.514165192.16	0.0459	PHASE 1	0.3960	HAUL1	0.03474	HAUL2
ANNUAL	R340	551338.51	4165212.16	551338.514165212.16	0.0481	PHASE 1	0.6115	HAUL1	0.03805	HAUL2
ANNUAL	R341	551378.51	4165212.16	551378.514165212.16	0.0451	PHASE 1	0.5183	HAUL1	0.03576	HAUL2
ANNUAL	R342	551418.51	4165212.16	551418.514165212.16	0.0424	PHASE 1	0.3619	HAUL1	0.03365	HAUL2
ANNUAL	R343	551358.51	4165232.16	551358.514165232.16	0.0430	PHASE 1	0.5734	HAUL1	0.03564	HAUL2
ANNUAL	R344	551398.51	4165232.16	551398.514165232.16	0.0405	PHASE 1	0.3880	HAUL1	0.03355	HAUL2
ANNUAL	R345	551378.51	4165252.16	551378.514165252.16	0.0387	PHASE 1	0.4167	HAUL1	0.03338	HAUL2
ANNUAL	R346	551378.51	4165272.16	551378.514165272.16	0.0361	PHASE 1	0.0361	HAUL1	0.37220	HAUL2
ANNUAL	R347	551498.28	4164852.3	551498.284164852.3	0.1089	PHASE 1	0.2273	HAUL1	0.04235	HAUL2
ANNUAL	R348	551538.28	4164852.3	551538.284164852.3	0.0971	PHASE 1	0.2001	HAUL1	0.03978	HAUL2
ANNUAL	R349	551458.28	4164872.3	551458.284164872.3	0.1199	PHASE 1	0.2847	HAUL1	0.04409	HAUL2
ANNUAL	R350	551498.28	4164872.3	551498.284164872.3	0.1059	PHASE 1	0.2453	HAUL1	0.04206	HAUL2
ANNUAL	R351	551538.28	4164872.3	551538.284164872.3	0.0945	PHASE 1	0.2129	HAUL1	0.0395	HAUL2
ANNUAL	R352	551458.28	4164892.3	551458.284164892.3	0.1160	PHASE 1	0.3133	HAUL1	0.04513	HAUL2
ANNUAL	R353	551498.28	4164892.3	551498.284164892.3	0.1026	PHASE 1	0.2648	HAUL1	0.0417	HAUL2
ANNUAL	R354	551538.28	4164892.3	551538.284164892.3	0.0916	PHASE 1	0.2260	HAUL1	0.03917	HAUL2
ANNUAL	R355	551458.28	4164912.3	551458.284164912.3	0.1116	PHASE 1	0.3460	HAUL1	0.04405	HAUL2
ANNUAL	R356	551498.28	4164912.3	551498.284164912.3	0.0988	PHASE 1	0.2853	HAUL1	0.04128	HAUL2
ANNUAL	R357	551538.28	4164912.3	551538.284164912.3	0.0881	PHASE 1	0.2889	HAUL1	0.03978	HAUL2
ANNUAL	R358	551458.28	4164932.3	551458.284164932.3	0.1068	PHASE 1	0.3824	HAUL1	0.04353	HAUL2
ANNUAL	R359	551498.28	4164932.3	551498.284164932.3	0.0947	PHASE 1	0.3059	HAUL1	0.0408	HAUL2
ANNUAL	R360	551538.28	4164932.3	551538.284164932.3	0.0848	PHASE 1	0.2510	HAUL1	0.03833	HAUL2
ANNUAL	R361	550405.6	4164951.75	550405.64164951.75	0.0627	PHASE 1	0.0253	HAUL1	0.29073	HAUL2
ANNUAL	R362	550465.6	4164951.75	550465.64164951.75	0.0871	PHASE 1	0.0311	HAUL1	0.42593	HAUL2
ANNUAL	R363	550405.6	4164971.75	550405.64164971.75	0.0955	PHASE 1	0.0329	HAUL1	0.60529	HAUL2
ANNUAL	R364	550525.6	4164971.75	550525.64164971.75	0.1239	PHASE 1	0.0381	HAUL1	1.49118	HAUL2
ANNUAL	R365	550605.6	4164971.75	550605.64164971.75	0.2197	PHASE 1	0.0517	HAUL1	0.99222	HAUL2
ANNUAL	R366	550405.6	4164991.75	550405.64164991.75	0.0611	PHASE 1	0.0250	HAUL1	0.34455	HAUL2
ANNUAL	R367	550565.6	4164991.75	550565.64164991.75	0.1534	PHASE 1	0.0432	HAUL1	2.13871	HAUL2
ANNUAL	R368	550605.6	4164991.75	550605.64164991.75	0.1987	PHASE 1	0.1987	HAUL1	0.55555	HAUL2
ANNUAL	R369	550645.6	4164991.75	550645.64164991.75	0.2515	PHASE 1	0.0578	HAUL1	0.54701	HAUL2
ANNUAL	R370	550565.6	4165011.75	550565.64165011.75	0.1435	PHASE 1	0.0422	HAUL1	1.55596	HAUL2
ANNUAL	R371	550605.6	4165011.75	5506						

ANNUAL	R416	551358.28	4165072.3	551358.284165072.3	0.0890	PHASE 1	3.0291	HAUL1	0.04533	HAUL2
ANNUAL	R417	551398.28	4165072.3	551398.284165072.3	0.0798	PHASE 1	0.9762	HAUL1	0.04235	HAUL2
ANNUAL	R418	551438.28	4165072.3	551438.284165072.3	0.0721	PHASE 1	0.9725	HAUL1	0.03965	HAUL2
ANNUAL	R419	551358.28	4165092.3	551358.284165092.3	0.0808	PHASE 1	2.0353	HAUL1	0.0442	HAUL2
ANNUAL	R420	551398.28	4165092.3	551398.284165092.3	0.0732	PHASE 1	0.8337	HAUL1	0.04133	HAUL2
ANNUAL	R421	551438.28	4165092.3	551438.284165092.3	0.0666	PHASE 1	0.5241	HAUL1	0.03872	HAUL2
ANNUAL	R422	551338.28	4165112.3	551338.284165112.3	0.0770	PHASE 1	3.1266	HAUL1	0.04452	HAUL2
ANNUAL	R423	551378.28	4165112.3	551378.284165112.3	0.0701	PHASE 1	0.9843	HAUL1	0.04161	HAUL2
ANNUAL	R424	551418.28	4165112.3	551418.284165112.3	0.0641	PHASE 1	0.3779	HAUL1	0.03898	HAUL2
ANNUAL	R425	551458.28	4165112.3	551458.284165112.3	0.0588	PHASE 1	0.4048	HAUL1	0.03659	HAUL2
ANNUAL	R426	551358.28	4165132.3	551358.284165132.3	0.0666	PHASE 1	1.2097	HAUL1	0.04184	HAUL2
ANNUAL	R427	551398.28	4165132.3	551398.284165132.3	0.0613	PHASE 1	0.6454	HAUL1	0.03918	HAUL2
ANNUAL	R428	551438.28	4165132.3	551438.284165132.3	0.0566	PHASE 1	0.4373	HAUL1	0.03677	HAUL2
ANNUAL	R429	551338.28	4165152.3	551338.284165152.3	0.0630	PHASE 1	1.5691	HAUL1	0.041	HAUL2
ANNUAL	R430	551378.28	4165152.3	551378.284165152.3	0.0583	PHASE 1	0.7352	HAUL1	0.03932	HAUL2
ANNUAL	R431	551418.28	4165152.3	551418.284165152.3	0.0541	PHASE 1	0.4751	HAUL1	0.03689	HAUL2
ANNUAL	R432	551338.28	4165172.3	551338.284165172.3	0.0573	PHASE 1	1.2404	HAUL1	0.0407	HAUL2
ANNUAL	R433	551378.28	4165172.3	551378.284165172.3	0.0534	PHASE 1	0.6499	HAUL1	0.03815	HAUL2
ANNUAL	R434	551298.14	4164530.93	551298.144164530.93	0.1298	PHASE 1	0.1130	HAUL1	0.04929	HAUL2
ANNUAL	R435	551318.14	4164550.93	551318.144164550.93	0.1346	PHASE 1	0.1177	HAUL1	0.04949	HAUL2
ANNUAL	R436	551298.14	4164570.93	551298.144164570.93	0.1498	PHASE 1	0.1339	HAUL1	0.05238	HAUL2
ANNUAL	R437	551338.14	4164570.93	551338.144164570.93	0.1377	PHASE 1	0.1218	HAUL1	0.04928	HAUL2
ANNUAL	R438	551298.14	4164590.93	551298.144164590.93	0.1601	PHASE 1	0.1456	HAUL1	0.05379	HAUL2
ANNUAL	R439	551338.14	4164590.93	551338.144164590.93	0.1459	PHASE 1	0.1316	HAUL1	0.05049	HAUL2
ANNUAL	R440	551378.14	4164590.93	551378.144164590.93	0.1329	PHASE 1	0.1198	HAUL1	0.04745	HAUL2
ANNUAL	R441	551478.28	4164952.3	551478.284164952.3	0.0957	PHASE 1	0.3679	HAUL1	0.04156	HAUL2
ANNUAL	R442	551518.28	4164952.3	551518.284164952.3	0.0856	PHASE 1	0.2905	HAUL1	0.03902	HAUL2
ANNUAL	R443	551418.28	4164972.3	551418.284164972.3	0.1091	PHASE 1	0.6697	HAUL1	0.04526	HAUL2
ANNUAL	R444	551458.28	4164972.3	551458.284164972.3	0.0962	PHASE 1	0.4582	HAUL1	0.04231	HAUL2
ANNUAL	R445	551498.28	4164972.3	551498.284164972.3	0.0859	PHASE 1	0.3420	HAUL1	0.03998	HAUL2
ANNUAL	R446	551538.28	4164972.3	551538.284164972.3	0.0773	PHASE 1	0.2699	HAUL1	0.0373	HAUL2
ANNUAL	R447	551418.28	4164992.3	551418.284164992.3	0.1024	PHASE 1	0.7756	HAUL1	0.0445	HAUL2
ANNUAL	R448	551458.28	4164992.3	551458.284164992.3	0.0907	PHASE 1	0.4890	HAUL1	0.04162	HAUL2
ANNUAL	R449	551498.28	4164992.3	551498.284164992.3	0.0812	PHASE 1	0.3542	HAUL1	0.03904	HAUL2
ANNUAL	R450	551478.28	4165012.3	551478.284165012.3	0.0806	PHASE 1	0.4216	HAUL1	0.03958	HAUL2
ANNUAL	R451	551438.28	4165012.3	551438.284165012.3	0.0888	PHASE 1	0.4210	HAUL1	0.04282	HAUL2
ANNUAL	R452	551478.28	4165012.3	551478.284165012.3	0.0755	PHASE 1	0.4219	HAUL1	0.03881	HAUL2
ANNUAL	R453	551378.28	4165052.3	551378.284165052.3	0.0920	PHASE 1	1.9834	HAUL1	0.04484	HAUL2
ANNUAL	R454	551438.28	4165052.3	551438.284165052.3	0.0779	PHASE 1	0.6178	HAUL1	0.04056	HAUL2
ANNUAL	R455	551478.28	4165052.3	551478.284165052.3	0.0705	PHASE 1	0.4124	HAUL1	0.03804	HAUL2
ANNUAL	R456	551378.28	4165072.3	551378.284165072.3	0.0842	PHASE 1	1.4784	HAUL1	0.0438	HAUL2
ANNUAL	R457	551418.28	4165072.3	551418.284165072.3	0.0758	PHASE 1	0.7267	HAUL1	0.04097	HAUL2
ANNUAL	R458	551458.28	4165072.3	551458.284165072.3	0.0687	PHASE 1	0.4697	HAUL1	0.0384	HAUL2
ANNUAL	R459	551378.28	4165092.3	551378.284165092.3	0.0768	PHASE 1	1.1814	HAUL1	0.04272	HAUL2
ANNUAL	R460	551418.28	4165092.3	551418.284165092.3	0.0697	PHASE 1	0.6451	HAUL1	0.03999	HAUL2
ANNUAL	R461	551458.28	4165092.3	551458.284165092.3	0.0636	PHASE 1	0.4377	HAUL1	0.03751	HAUL2
ANNUAL	R462	551358.28	4165112.3	551358.284165112.3	0.0734	PHASE 1	0.5193	HAUL1	0.04303	HAUL2
ANNUAL	R463	551398.28	4165112.3	551398.284165112.3	0.0670	PHASE 1	0.4070	HAUL1	0.04016	HAUL2
ANNUAL	R464	551438.28	4165112.3	551438.284165112.3	0.0614	PHASE 1	0.4780	HAUL1	0.03775	HAUL2
ANNUAL	R465	551338.28	4165132.3	551338.284165132.3	0.0696	PHASE 1	2.1228	HAUL1	0.04327	HAUL2
ANNUAL	R466	551378.28	4165132.3	551378.284165132.3	0.0639	PHASE 1	0.8427	HAUL1	0.04048	HAUL2
ANNUAL	R467	551418.28	4165132.3	551418.284165132.3	0.0589	PHASE 1	0.5224	HAUL1	0.03795	HAUL2
ANNUAL	R468	551458.28	4165132.3	551458.284165132.3	0.0541	PHASE 1	0.3738	HAUL1	0.0358	HAUL2
ANNUAL	R469	551358.28	4165152.3	551358.284165152.3	0.0606	PHASE 1	1.0033	HAUL1	0.04062	HAUL2
ANNUAL	R470	551398.28	4165152.3	551398.284165152.3	0.0562	PHASE 1	0.5784	HAUL1	0.03808	HAUL2
ANNUAL	R471	551318.28	4165172.3	551318.284165172.3	0.0595	PHASE 1	2.2309	HAUL1	0.04209	HAUL2
ANNUAL	R472	551358.28	4165172.3	551358.284165172.3	0.0553	PHASE 1	0.8551	HAUL1	0.03939	HAUL2
ANNUAL	R473	551678.14	4164370.93	551678.144164370.93	0.0513	PHASE 1	0.0429	HAUL1	0.02693	HAUL2
ANNUAL	R474	551298.14	4164550.93	551298.144164550.93	0.1397	PHASE 1	0.1397	HAUL1	0.05091	HAUL2
ANNUAL	R475	551358.14	4164550.93	551358.144164550.93	0.1245	PHASE 1	0.1079	HAUL1	0.04662	HAUL2
ANNUAL	R476	551318.14	4164570.93	551318.144164570.93	0.1437	PHASE 1	0.1276	HAUL1	0.0508	HAUL2
ANNUAL	R477	551358.14	4164570.93	551358.144164570.93	0.1319	PHASE 1	0.1164	HAUL1	0.04782	HAUL2
ANNUAL	R478	551318.14	4164590.93	551318.144164590.93	0.1529	PHASE 1	0.1383	HAUL1	0.05211	HAUL2
ANNUAL	R479	551358.14	4164590.93	551358.144164590.93	0.1392	PHASE 1	0.1264	HAUL1	0.04894	HAUL2
ANNUAL	R480	551298.14	4164610.93	551298.144164610.93	0.1704	PHASE 1	0.1582	HAUL1	0.05511	HAUL2
ANNUAL	R481	551318.14	4164610.93	551318.144164610.93	0.1620	PHASE 1	0.1498	HAUL1	0.05332	HAUL2
ANNUAL	R482	551358.14	4164610.93	551358.144164610.93	0.1464	PHASE 1	0.1351	HAUL1	0.04996	HAUL2
ANNUAL	R483	551398.14	4164610.93	551398.144164610.93	0.1325	PHASE 1	0.1230	HAUL1	0.04691	HAUL2
ANNUAL	R484	551438.14	4164610.93	551438.144164610.93	0.1204	PHASE 1	0.1133	HAUL1	0.04416	HAUL2
ANNUAL	R485	551358.14	4164630.93	551358.144164630.93	0.0670	PHASE 1	0.1455	HAUL1	0.05029	HAUL2
ANNUAL	R486	551398.14	4164630.93	551398.144164630.93	0.1378	PHASE 1	0.1319	HAUL1	0.04771	HAUL2
ANNUAL	R487	551298.14	4164650.93	551298.144164650.93	0.1904	PHASE 1	0.1869	HAUL1	0.05739	HAUL2
ANNUAL	R488	551338.14	4164650.93	551338.144164650.93	0.1692	PHASE 1	0.1659	HAUL1	0.05354	HAUL2
ANNUAL	R489	551398.14	4164650.93	551398.144164650.93	0.1427	PHASE 1	0.1415	HAUL1	0.04842	HAUL2
ANNUAL	R490	551438.14	4164650.93	551438.144164650.93	0.1282	PHASE 1	0.1282	HAUL1	0.04545	HAUL2
ANNUAL	R491	551298.14	4164670.93	551298.144164670.93	0.1997	PHASE 1	0.1997	HAUL1	0.05834	HAUL2
ANNUAL	R492	551338.14	4164670.93	551338.144164670.93	0.1761	PHASE 1	0.1705	HAUL1	0.05434	HAUL2
ANNUAL	R493	551378.14	4164670.93	551378.144164670.93	0.1560	PHASE 1	0.1601	HAUL1	0.05071	HAUL2
ANNUAL	R494	551418.14	4164670.93	551418.144164670.93	0.1390	PHASE 1	0.1447	HAUL1	0.04747	HAUL2
ANNUAL	R495	551478.14	4164670.93	551478.144164670.93	0.1181	PHASE 1	0.1273	HAUL1	0.04319	HAUL2
ANNUAL	R496	551318.14	4164690.93	551318.144164690.93	0.1948	PHASE 1	0.1948	HAUL1	0.05793	HAUL2
ANNUAL	R497	551358.14	4164690.93	551358.144164690.93	0.1709	PHASE 1	0.1830	HAUL1	0.0531	HAUL2
ANNUAL	R498	551398.14	4164690.93	551398.144164690.93	0.1509	PHASE 1	0.1633	HAUL1	0.04957	HAUL2
ANNUAL	R499	551458.14	4164690.93	551458.144164690.93	0.1269	PHASE 1	0.1415	HAUL1	0.04494	HAUL2
ANNUAL	R500	551338.14	4164710.93	551338.144164710.93	0.1877	PHASE 1	0.2116	HAUL1	0.05558	HAUL2
ANNUAL	R501	551378.14	4164710.93	551378.144164710.93	0.1642	PHASE 1	0.1864	HAUL1	0.05175	HAUL2
ANNUAL	R502	551418.14	4164710.93	551418.144164710.93	0.1448	PHASE 1	0.1666	HAUL1	0.04857	HAUL2
ANNUAL	R503	551458.14	4164710.93	551458.144164710.93	0.1286	PHASE 1	0.1512	HAUL1	0.04526	HAUL2
ANNUAL	R504	551398.14	4164730.93	551398.144164730.93	0.1565	PHASE 1	0.1899	HAUL1	0.05032	HAUL2
ANNUAL	R505	551418.14	4164750.93	551418.144164750.93	0.1479	PHASE 1	0.1935	HAUL1	0.04883	HAUL2
ANNUAL	R506	550697.48	4164311.07	550697.484164311.07	0.0415	PHASE 1	0.0272	HAUL1	0.02229	HAUL2
ANNUAL	R507	550637.48	4164311.07	550637.484164311.07	0.0580	PHASE 1	0.03	HAUL1	0.02377	HAUL2
ANNUAL	R508	550697.48	4164311.07	550697.484164311.07	0.0599	PHASE 1	0.0426	HAUL1	0.02732	HAUL2
ANNUAL	R509	550737.48	4164311.07	550737.484164311.07	0.0593	PHASE 1	0.0448</			

ANNUAL	R555	550577.48	4164351.07	550577.484164351.07	0.0611	PHASE 1	0.0356	HAUL1	0.03756	HAUL2
ANNUAL	R556	550637.48	4164351.07	550637.484164351.07	0.0672	PHASE 1	0.0428	HAUL1	0.03526	HAUL2
ANNUAL	R557	550677.48	4164351.07	550677.484164351.07	0.0694	PHASE 1	0.0471	HAUL1	0.03288	HAUL2
ANNUAL	R558	550717.48	4164351.07	550717.484164351.07	0.0698	PHASE 1	0.0505	HAUL1	0.03097	HAUL2
ANNUAL	R559	550777.48	4164351.07	550777.484164351.07	0.0679	PHASE 1	0.0538	HAUL1	0.0299	HAUL2
ANNUAL	R560	550817.48	4164351.07	550817.484164351.07	0.0659	PHASE 1	0.0553	HAUL1	0.0305	HAUL2
ANNUAL	R561	550837.48	4164351.07	550837.484164351.07	0.0647	PHASE 1	0.0559	HAUL1	0.03104	HAUL2
ANNUAL	R562	550577.48	4164371.07	550577.484164371.07	0.0652	PHASE 1	0.0373	HAUL1	0.04083	HAUL2
ANNUAL	R563	550617.48	4164371.07	550617.484164371.07	0.0704	PHASE 1	0.0428	HAUL1	0.03954	HAUL2
ANNUAL	R564	550677.48	4164371.07	550677.484164371.07	0.0751	PHASE 1	0.0506	HAUL1	0.0359	HAUL2
ANNUAL	R565	550717.48	4164371.07	550717.484164371.07	0.0758	PHASE 1	0.0546	HAUL1	0.03362	HAUL2
ANNUAL	R566	550757.48	4164371.07	550757.484164371.07	0.0749	PHASE 1	0.0573	HAUL1	0.03255	HAUL2
ANNUAL	R567	550857.48	4164371.07	550857.484164371.07	0.0699	PHASE 1	0.0618	HAUL1	0.03481	HAUL2
ANNUAL	R568	550717.48	4164391.07	550717.484164391.07	0.0826	PHASE 1	0.0592	HAUL1	0.03668	HAUL2
ANNUAL	R569	550757.48	4164391.07	550757.484164391.07	0.0819	PHASE 1	0.0625	HAUL1	0.03556	HAUL2
ANNUAL	R570	550797.48	4164391.07	550797.484164391.07	0.0803	PHASE 1	0.0649	HAUL1	0.03612	HAUL2
ANNUAL	R571	550857.48	4164391.07	550857.484164391.07	0.0772	PHASE 1	0.0680	HAUL1	0.03851	HAUL2
ANNUAL	R572	550757.48	4164411.07	550757.484164411.07	0.0899	PHASE 1	0.0684	HAUL1	0.03912	HAUL2
ANNUAL	R573	550797.48	4164411.07	550797.484164411.07	0.0885	PHASE 1	0.0714	HAUL1	0.04002	HAUL2
ANNUAL	R574	550857.48	4164411.07	550857.484164411.07	0.0859	PHASE 1	0.0756	HAUL1	0.04292	HAUL2
ANNUAL	R575	550837.48	4164431.07	550837.484164431.07	0.0970	PHASE 1	0.0830	HAUL1	0.04711	HAUL2
ANNUAL	R576	550837.48	4164451.07	550837.484164451.07	0.1092	PHASE 1	0.0938	HAUL1	0.05344	HAUL2
ANNUAL	R577	550857.48	4164471.07	550857.484164471.07	0.1239	PHASE 1	0.1104	HAUL1	0.06225	HAUL2
ANNUAL	R578	551045.12	4165591.04	551045.124165591.04	0.0282	PHASE 1	0.0584	HAUL1	0.02385	HAUL2
ANNUAL	R579	550857.48	4164351.07	550857.484164351.07	0.0635	PHASE 1	0.0565	HAUL1	0.03187	HAUL2
ANNUAL	R580	550597.48	4164371.07	550597.484164371.07	0.0679	PHASE 1	0.0400	HAUL1	0.04033	HAUL2
ANNUAL	R581	550657.48	4164371.07	550657.484164371.07	0.0740	PHASE 1	0.0481	HAUL1	0.03722	HAUL2
ANNUAL	R582	550697.48	4164371.07	550697.484164371.07	0.0757	PHASE 1	0.0527	HAUL1	0.03466	HAUL2
ANNUAL	R583	550737.48	4164371.07	550737.484164371.07	0.0755	PHASE 1	0.0561	HAUL1	0.03291	HAUL2
ANNUAL	R584	550777.48	4164371.07	550777.484164371.07	0.0741	PHASE 1	0.0584	HAUL1	0.03255	HAUL2
ANNUAL	R585	550697.48	4164391.07	550697.484164391.07	0.0823	PHASE 1	0.0570	HAUL1	0.03786	HAUL2
ANNUAL	R586	550737.48	4164391.07	550737.484164391.07	0.0824	PHASE 1	0.0610	HAUL1	0.0359	HAUL2
ANNUAL	R587	550777.48	4164391.07	550777.484164391.07	0.0811	PHASE 1	0.0637	HAUL1	0.03566	HAUL2
ANNUAL	R588	550817.48	4164391.07	550817.484164391.07	0.0793	PHASE 1	0.0660	HAUL1	0.03681	HAUL2
ANNUAL	R589	550737.48	4164411.07	550737.484164411.07	0.0903	PHASE 1	0.0667	HAUL1	0.0394	HAUL2
ANNUAL	R590	550777.48	4164411.07	550777.484164411.07	0.0893	PHASE 1	0.0700	HAUL1	0.03937	HAUL2
ANNUAL	R591	550817.48	4164411.07	550817.484164411.07	0.0877	PHASE 1	0.0728	HAUL1	0.04092	HAUL2
ANNUAL	R592	550797.48	4164431.07	550797.484164431.07	0.0982	PHASE 1	0.0792	HAUL1	0.04478	HAUL2
ANNUAL	R593	550857.48	4164431.07	550857.484164431.07	0.0962	PHASE 1	0.0848	HAUL1	0.04821	HAUL2
ANNUAL	R594	550837.48	4164471.07	550837.484164471.07	0.1239	PHASE 1	0.1073	HAUL1	0.06122	HAUL2
ANNUAL	R595	551065.12	4165571.04	551065.124165571.04	0.0286	PHASE 1	0.0650	HAUL1	0.02452	HAUL2
ANNUAL	R596	551065.12	4165591.04	551065.124165591.04	0.0275	PHASE 1	0.0611	HAUL1	0.02328	HAUL2

Health Risk - Dose and Risk Factors and Values

Dose factors

Dose factors for calc	Construction	3rd trimester					source
		3rd trimester	0-2	2-9	10-30	16-70	
Daily Breath Rate (L/kg-day)	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04	dose factors for lookup in risk calcs
	Recreational	8,576-06	4,296-05	2,296-05	8,576-06	8,216-06	dose factors for lookup in risk calcs
	School	2,946-05	1,486-04	6,211-05	2,946-05	2,846-05	dose factors for lookup in risk calcs
	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for 2-9 per BAAQMD guidance
	Recreational	240	1200	640	240	230	OEHA 2015, Table 5.8 (95th, moderate) for all bins but 3rd tri, which was taken from SNUAPCO's draft guidance
A	School	240	1200	520	240	230	BAAQMD guidance - 95th percentile
	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	Recreational	0.036	0.036	0.036	0.036	0.036	3x/week, 2 hours/day, for 3 years
	School	0.12	0.12	0.12	0.12	0.12	BAAQMD Guidance - 180 days/yr, 6 hours/day
Conversion Factor		1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		1.00	1.00	1.00	1.00	1.00	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Risk factors for calcs		Construction		Residential	1.10E+01	11.00	3.90E+00	1.10E+00	1.10E+00	without ED; ED/AT calculation in risk calc
		Recreational	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00			
		school	1.10E+01	1.10E+01	3.90E+00	1.10E+00	1.10E+00			
CPF, DPM (mg/kg-day) ¹		1.1	1.1	1.1	1.1	1.1	OEHA 2015, Table 7.1			
Average Age Sensitivity Factor		10	10	3	1	1	OEHA 2015, Table 8.3			
AT, Average Time (days)		70	70	70	70	70	Averaging time for lifetime cancer risk			
FAM		1.00	1.00	1.00	1.00	1.00	OEHA 2015, Table 8.4; Use FAM = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth			
ED, Exposure Duration (years)		see ED calculation sheet								
Chronic Inhalation Reference Exposure Level, respiratory, DPM		5								

http://www.baaqmd.gov/?media/files/planning-and-research/rules-and-reg/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Utilized rate reasoning, see Section 3.9.2 of CAPCOA's HRA Guide.

An alternative approach is applying utilized emission rate and summation concepts, which drastically reduce the computational time for large multiple pollutant projects.

All chemical concentration levels vary linearly with their source release rate

This concentration at the receptor can then be multiplied by the actual rates (actual g/s (x) utilized 1 g/s rates)

DPM HRA Factors and values - Operations

Dose factors

Factors for calcs -->	Construction	3rd trimester					source
		3rd trimester	0-2	2-9	10-30	16-70	
Daily Breath Rate (L/kg-day)	Existing Student	4,976-04	2,496-03	1,331-03	4,976-04	4,766-04	dose factors for lookup in risk calcs
	New Student	4,976-04	2,496-03	1,331-03	4,976-04	4,766-04	
	Residential	3,482-04	1,102-03	6,051-04	2,502-04	2,212-04	
	Offsite Student	4,976-04	2,496-03	1,331-03	4,976-04	4,766-04	dose factors for lookup in risk calcs
	Residential	361	1090	631	261	233	OEHA 2015, Table 5.6, 95th tile for 3rd-tri-2yrs old; 80th for other age groups
A	School	240	1200	640	240	230	SNUAPCO for 3rd tri; 95th percentile for all
	Residential	1	1	1	1	1	OEHA 2015, page 5-24
	EF, Exposure frequency (unitless), day	0.96	0.96	0.96	0.96	0.96	OEHA 2015, page 5-24, 350 days/yr
	School	0.49	0.49	0.49	0.49	0.49	180 days/yr
	Conversion Factor	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/yr = m3/l)
Adjustment Factor (schools)		4.20	4.20	4.20	4.20	4.20	Similar to WAF - OEHA 2015, Page 4-44 and Equation 4.1; non-continuous emissions adjusted per WAF guidance. DF of 1 since construction and student presence assumed to completely overlap

Risk Factors

Factors for calcs -->	Construction	Existing Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
		New Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00	
CPF, DPM (mg/kg-day) ¹	Offsite Student	0.00E+00	0.00E+00	1.89E-01	0.00E+00	0.00E+00		OEHA 2015, Table 7.1
	Residential	3.93E-02	3.14E-01	0.00E+00	2.20E-01	0.00E+00		
	Average Age Sensitivity Factor	1.1	1.1	3	1	1		
	AT, Average Time (days)	70	70	70	70	70		
	FAM	1.00	1.00	1.00	1.00	1.00		
ED, Exposure Duration (years)		Grades 1-8; ages 6-13						
Buses	New Wilson/Central Students	0.25	2.00	4.00	14.00			Equation 8.2.4.8, OEHA 2015; 30 years total
	Residential							Equation 8.2.4.8, OEHA 2015
	Roadway	New Wilson/Central Students		4.00				Equation 8.2.4.8, OEHA 2015; 30 years total
Chronic Inhalation Reference Exposure Level, respiratory, DPM		5						

1hr to annual

conversions:

Second per hour	3600
Grams per ton	907184.74
Million	1,000,000
m2 per acre	4046.86
days per year	365

Operational Risk Calcs

		3rd trimester	0<2	2<9	2<16	16<30	16-70	Total
Receptor Type	Residential							
AERMOD CONCENTRATION (ug/m^3)	0.00059							
Dose		2.04E-07	6.17E-07	3.57E-07	3.24E-07	1.48E-07		
Risk		0.00	1.94E-07	0.00E+00	2.14E-07	3.25E-08	0.00E+00	4.5E-07
Risk per million		0.01	0.194	0.00	0.21	0.03	0.00	0.45
Chronic HI		-	-	-	-	-	-	0.0001
PM2.5		-	-	-	-	-	-	0.00059

DPM HRA Factors and values - Construction

Dose _{air} = C _{air} × (IR/EN) × A × EF × 10 ⁻⁶									
Dose fa		3rd trimester	0<2	2<9	9<16	16<30	16-70	source	
	Dose factors for calcs -->	Residential	3.46E-04	1.05E-03	6.05E-04	5.48E-04	2.50E-04	2.23E-04	dose factors for lookup in risk calcs
Daily Breath Rate (L/kg-day)		Residential	361	1090	631	572	261	233	OEHHA 2015, Table 5.6, 95th %ile for 3rdtri-2yrs old; 80th for other age groups
A			1	1	1	1	1	1	OEHHA 2015, page 5-24
EF, Exposure frequency (unitless), days/365 days		Residential	0.96	0.96	0.96	0.96	0.96	0.96	OEHHA 2015, page 5-24, 350 days/yr
Conversion Factor			1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06	(mg/ug + m3/L)

RISK _{inh-res} = DOSE _{air} × CPF × ASF × ED/AT × FAH									
Risk Fac									
	Risk factors for calcs ---->	Residential	3.93E-02	3.14E-01	0.00E+00	6.60E-01	2.20E-01	0.00E+00	risk factors for lookup in risk calcs
CPF, DPM ((mg/kg-day) ⁻¹)			1.1	1.1	1.1	1.1	1.1	1.1	OEHHA 2015, Table 7.1
Average Age Sensitivity Factor			10	10	3	3	1	1	OEHHA 2015, Table 8.3
AT, Average Time (years)			70	70	70	70	70	70	Averaging time for lifetime cancer risk
FAH			1.00	1.00	1.00	1.00	1.00	1.00	OEHHA 2015, Table 8.4: Use FAH = 1 if a school is within the 1x10-6 (or greater) cancer risk isopleth
ED, Exposure Duration (years)		Residential	0.25	2.00		14	14		OEHHA 2015, Table 6.3

Chronic Inhalation Reference Exposure Level, respiratory, DPM	5
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Operations

	DPM	
Number of Generators	2	
tons/year	0.022	
g total	19,958.07	
g per generator set	9,979.04	
seconds per year	15,768,000	assuming a 12-hour work day (daytime testing only)
avg annual g/s per generator	0.000632866	over possible testing period only - Used in AERMOD

Inputs

Release Height	6.07 meters	SJVAPCD
Emission Rate	0.000632866 g/s	Calculated above
Gas Exit Temperature	784 K	SJVACPD
Stack Inside Diameter	0.19	SJVAPCD
Gas Exit Velocity	87.68	SJVACPD
Gas Exist Flow Rate	2.486 m3/s	Calculated per AERMOD

Technical Modeling Considerations for Criteria Pollutants and Human Health Effects

In their interim guidance addressing *Sierra Club v. County of Fresno* (6 Cal. 5th 502) (Friant Ranch), SMAQMD (2019) recommends lead agencies compare the air quality models used in CEQA analyses to those models designed to evaluate regional attainment with ambient air quality standards and associated human health consequences. This section describes the three models used to estimate criteria pollutant emissions generated by construction and operation of the project and evaluates their ability to assess specific health impacts of the project. This section also analyzes whether models and tools that have been developed to quantify ambient pollutant concentrations could be used to reasonably correlate project-level emissions to specific health consequences.

Review of Project Analysis Models

Criteria pollutant emissions generated by construction and operation of the project were estimated using the California Emissions Estimator Model (CalEEMod), SMAQMD's Roadway Construction Emissions Model (RCEM), and the California Air Resources Board's (CARB) Emissions FACtor (EMFAC) model. Each of the following sections note whether the given model is suitable for quantify human health consequences or changes in nonattainment days.

California Emissions Estimator Model

CalEEMod is a statewide computer model quantifies construction and operational criteria pollutant and greenhouse gas (GHG) emissions from land use development projects. The model evaluates construction emissions associated with six phases—demolition, site preparation, grading, building construction, architectural coatings, and paving. Emission sources considered by the model include offroad construction equipment, onroad mobile vehicles, fugitive dust from land disturbance, and volatile organic compounds from architectural coatings and paving activities.

CalEEMod quantifies project emissions based on user-defined inputs for project location, operational year, land use type (e.g., commercial), climate zone, and size. Based on these minimum data inputs, users can estimate construction emissions based model generated default assumptions for construction phasing, construction equipment inventory and activities, and trip lengths. Default values included in the model were provided by California air districts and account for local conditions and regulations. Where appropriate, CalEEMod combines local data with regional and statewide values to ensure enough information is available to quantify emissions. Users can override default values with project-specific information. In addition, users can implement mitigation measures and strategies to reduce construction-related exhaust and fugitive dust emissions.

Based on the user inputs and emission factors from the CARB's EMFAC and OFFROAD models, CalEEMod calculates both daily maximum (pounds per day) and annual average (tons per year) emissions. These emissions can be compared to air district mass emission thresholds, such as those adopted by EDCAQMD. CalEEMod does not quantify concentrations of the various air pollutants (in

terms of micrograms per cubic meter or parts per million), nor does it estimate secondary pollutants (such as ozone and PM_{2.5}) or potential human health effects from exposure to criteria pollutants. Accordingly, CalEEMod cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

Road Construction Emissions Model

SMAQMD's RCEM is a public-domain spreadsheet model formatted as a series of individual worksheets. The model is specifically designed to evaluate construction criteria pollutant and GHG emissions from linear projects (e.g., water infrastructure, roads). Four generic construction phases are considered by the model: 1) grubbing/land clearing, 2) grading/excavation, 3) drainage/utilities/subgrade, and 4) paving. Within these phases, the model estimates construction emissions for load hauling (onroad heavy-duty vehicle trips), worker commutes, construction site fugitive dust, and offroad construction vehicles. Although exhaust emissions are estimated for each activity, fugitive dust estimates are currently limited to major dust-generating activities, which include grubbing/land clearing and grading/excavation.

The RCEM was designed to enable users to estimate emissions using a minimum amount of project-specific information, such as construction start year and duration, project type, and the project length and area. This was done because specific data to quantify emissions from transportation projects is often unavailable when the environmental document is being prepared. To help facilitate the quantification of construction emissions based on valid assumptions, the RCEM contains default data based on surveys of construction equipment, schedules, and other construction data from a selection of construction projects in Sacramento County, as well as construction surveys conducted for CalEEMod and a technical evaluation completed by the University of California, Davis. Emission factors used by the model are from the CARB's EMFAC and OFFROAD models.

Like CalEEMod, RCEM calculates both daily maximum (pounds per day) and annual average (tons per year) emissions. RCEM does not quantify concentrations of the various air pollutants (in terms of micrograms per cubic meter or parts per million), nor does it estimate secondary pollutants (such as ozone and PM_{2.5}) or potential human health effects from exposure to criteria pollutants. Accordingly, RCEM cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

Emissions FACTor Model

CARB developed the EMFAC model to facilitate preparation of statewide and regional mobile source emissions inventories. The model generates criteria pollutant and GHG emissions rates that can be multiplied by vehicle activity data from all motor vehicles, including passenger cars to heavy-duty trucks, operating on highways, freeways, and local roads in California. The resulting emissions estimates are mass emission quantities that can be expressed in terms of pounds per day and tons per year (or other similar unit rates). Like CalEEMod and RCEM, EMFAC does not assess pollutant dispersion or quantify concentrations or potential health effects. Accordingly, EMFAC cannot be used to evaluate changes in the number of regional nonattainment days or correlate project-level emissions to specific health consequences.

Review of Photochemical and Human Health Models

Several models and tools capable of translating mass emissions of criteria pollutants to ambient pollutant concentrations and various health endpoints have been developed. Table 1 summarizes key tools, identifies the analyzed pollutants, describes their intended application and resolution, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences.

As shown in Table 1, almost all tools were designed to be used at the national, state, regional, and/or city-levels. This is because criteria pollutants emitted by a specific source often do not deposit immediately adjacent to that source. Pollutants can be transported by prevailing winds or transformed through chemical reactions and physical interactions with other pollutants in the atmosphere. Because some pollutants can be transported over long distances, recorded violations of the ambient air quality standards at a specific monitoring station and resultant health effects experienced by the local population may be the result of faraway emission sources (some of which may not even be located within the same air basin). For this reason, attaining the ambient air quality standards and protecting human health from exposure to criteria pollutants requires a regional, and sometimes multiregional strategy that considers the combined effect of all emission-generating sources that influence air quality within an air basin.

The models and tools that have been developed to assess attainment of the ambient air quality standards and human health effects are therefore regional in nature and are not well suited to analyze small or localized changes in pollutant concentrations associated with individual projects. Said another way, “it remains impossible, using today’s models, to correlate that increase in concentration to a specific health impact [because] such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level” (San Joaquin Valley Air Pollution Control District 2015). As of the writing of this analysis “neither the Sacramento Air District nor any other air district currently have methodologies that would provide Lead Agencies and CEQA practitioners with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from a proposed project’s mass emissions” (Sacramento Metropolitan Air Quality Management District 2019).

Table 1. Analysis of Photochemical and Human Health Models

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-Level CEQA Applicability
AirCounts	Abt Assoc.	Online tool that helps large and medium-sized cities quickly estimate the health benefits of PM2.5 emission reductions and economic value of those benefits. The tool estimates the number of deaths (mortality) avoided and economic value related to user-specified regional, annual PM2.5 emissions reduction. The modeling year is 2010; avoided deaths are expected to occur over a 20-year period and their present value is shown in 2010 US dollars at a 3% discount rate.	City-level	Primary PM2.5	This tool is only illustrative, as it is limited to certain cities and does not target specific sectors. Given that it was designed as a screening-level tool, is not sector specific, and includes limited California data, the tool is not recommended for project-level CEQA analysis.
AP2 (formerly Air Pollution Emission Experiments and Policy [APEEP])	Mueller and Mendelsohn, 2006	AP2 is an integrated assessment model developed to assess marginal damage impacts from emissions at the national scale but can be applied at the county-level. The model connects emissions to monetary damages through six modules: emissions (per EPA's national inventory), air quality modeling, concentrations, exposures, physical effects, and valuation. Damages are presented on a dollar-per-ton basis. Model extends damage assessment beyond human health, and includes assessment on reduced crop and timber yields, reductions in visibility, enhanced depreciation of man-made materials and damages due to lost recreation services.	National or county-level	SO ₂ , ROG, NO _x , ozone, PM2.5, PM10	The model operates at the national scale but may be applied at the county-level (although it is not clear how this adjustment should be made). The tool is also not commercially available. Accordingly, the tool is not recommended for project-level CEQA analysis.
Methodology for Estimating Premature Deaths Associated with Long-Term Exposure to Fine Airborne Particulate Matter in California	CARB	The staff report identifies a relative risk of premature death associated with PM2.5 exposure based on a review of all relevant scientific literature, and a new relative risk factor was developed. This new factor is a 10% increase in risk of premature death per 10 µg/m ³ increase in exposure to PM2.5 concentrations (uncertainty interval: 3% to 20%)	National		The primary author of the CARB staff report notes that the analysis method is not suited for small projects and may yield unreliable results due to various uncertainties. Accordingly, the tool is not recommended for project-level CEQA analysis.
Co-Benefits Risk Assessment (COBRA)	US EPA	Preliminary screening tool that contains baseline emission estimates of a variety of air pollutants for a single year (2017). COOBRA is targeted to state and local governments as a screening assessment for clean energy policies. Users specify changes to the baseline emission estimates. COBRA then uses "canned" source-receptor matrix model to estimate PM changes and resulting health outcomes and monetized values. The results can be mapped to visually represent air quality, human health, and health-related economic benefits. Analysis can be performed across the 14 major emissions categories included in the EPA's National Emissions Inventory.	National, regional, state, or county-levels	PM2.5, SO ₂ , NO _x , NH ₃ , and ROG	COBRA is a preliminary screening tool only and cannot be used at sub-county resolution. It also does not account for secondary emission changes resulting from market responses. Accordingly, the tool is not recommended for project-level CEQA analysis.
Environmental Benefits and Mapping Program-Community Edition (BenMAP-CE)	US EPA	Note that COBRA is based on EPA's BenMAP-CE (discussed in a separate entry). BenMAP is EPA's detailed model for estimating the health impacts from air pollution. It relies on input concentrations and applies concentration-response (C-R) health impact functions, which relate a change in the concentration of a pollutant with a change in the incidence of a health endpoint, including premature mortality, heart attacks, chronic respiratory illnesses, asthma exacerbation and other adverse health effects. Detailed inputs are required for air quality changes (concentrations from AERMOD), population, baseline incidence rates, and effect estimates.	National, County, City, and sub-regional levels	Ozone, PM, NO ₂ , SO ₂ , CO	The smallest default analysis resolution for BenMAP-CE is 144 square kilometers (equivalent to approximately 56 square miles or 36,000 acres). This tool could be used to derive average health incidence/ton estimates that can be used for illustrative purposes only for most projects with proper disclosure of the inherent inaccuracies involved in averaging. It is not recommended for individual modeling of smaller projects, however. The tool may be appropriate for modeling certain large-scale General Plan-level analyses.

Tool	Created by	Description	Resolution	Pollutants Analyzed	Project-Level CEQA Applicability
Fast Scenario Screening Tool (TM5-FASST)	Joint Research Centre (Italy)	Tool allows users to evaluate how air pollutant emissions affect large scale pollutant concentrations and their impact on human health (mortality and years of life lost) and crop yield from national to regional air quality policies, such as climate policies. The tool is web-based and does not require coding or modelling. Users must gain access through publishers.	Global and national-levels	PM2.5, ozone, NOx, NH3, CO, ROG, EC, CH4, SO2	This tool is applicable at national to global scales. Accordingly, the tool is not recommended for project-level CEQA analysis.
Long-range Energy Alternatives Planning System-- Integrated Benefits Calculator (LEAP-IBC)	Climate and Clean Air Coalit-ion (CCAC)	Allows users to rapidly estimate the impacts of reducing emissions on health, climate, and agriculture. Tool uses sensitivity coefficients that link gridded emissions of air pollutants and precursors to health, climate and agricultural impacts at a national level. The sensitivity coefficients are generated by a chemical transport model, so air quality modeling not necessary. Tool is currently Excel-based and is available through the developers only. A web-based interface is currently under development.	National-level	PM2.5, ozone, NO2	This tool is applicable at national scale. Accordingly, the tool is not recommended for project-level CEQA analysis.
Multi-Pollutant Evaluation Method (MPEM)	BAAQMD	Estimates the impacts of control measures on pollutant concentration, population exposures, and health outcomes for criteria, toxic, and GHG pollutants. Monetizes the value of total health benefits from reductions in PM2.5, ozone, and certain carcinogens, and the social value of GHG reductions. MPEM was designed for development of a Clean Air Plan for the San Francisco Bay Area. The inputs are specific to the SF region and are not appropriate for projects outside BAAQMD.	Regional level in the SFBAAB	Ozone, PM, air toxics, GHG	This tool is designed to support the BAAQMD in regional planning and emissions analysis within the SFBAAB. The model applies changes in pollutant concentrations over a four-square kilometer grid. This tool could be used to derive average health incidence/ton estimates that can be used for illustrative purposes only for most projects with proper disclosure of the inherent inaccuracies involved in averaging. It is not recommended for individual modeling of smaller projects, however. The tool may be appropriate for certain large-scale planning-level analyses in the SFBAAB (with permission of BAAQMD).
Response Surface Model (RSM)-based Benefit-per-Ton Estimates	US EPA	Consists of tables reporting the monetized PM2.5-related health benefits from reducing PM2.5 precursors from certain source types nationally and for 9 US cities/regions. Applying these estimates simply involves multiplying the emissions reduction by the relevant benefit per-ton metric. The resulting value is the PM mortality risk estimate at a 3% discount rate.	National or regional (San Joaquin County only) levels	EC, SOx, VOC, NH3, NOx	While RSM includes regional values specific to San Joaquin County, the metrics only reflect the benefits of reductions in exposure to ambient PM alone and do not include the benefits of reductions in other pollutants. The values are also dated as new sector-based BPT values are more current. Accordingly, the tool is not recommended for project-level CEQA analysis (even in San Joaquin County).
Sector-based Benefit-per-Ton Estimates	US EPA	Two specific sets of BPT estimates for 17 key source categories are available. Both are a reduced-form approach based on BenMAP modeling. The first are based on Fann et al. (2012) values and available from EPA's website. The second is based on updated modeling from Fann et al. (2017) and available in a Technical Support Document (TSD) from EPA. Applying these factors involves multiplying the emissions reduction (in tons) by the relevant benefit (economic value) or incidence (rates of mortality and morbidity) per-ton metric. The resulting value is the economics, mortality, and morbidity of direct and indirect PM2.5 emissions. All values are based on a national-scale study. Local values are preferred, but not available from any existing reduced form model and use of reduced form estimates for another city is unlikely to provide a better-than-national value. Use of the current values from EPA's 2018 TSD represent the most current estimate of monetized or incidence risk. Values from Lepeule et al. (2012) represent the most current estimate of mortality.	National-scale	PM2.5, SO2, NOx	Due to the complex non-linear chemistry governing ozone formation, EPA was not able to derive ozone or secondary PM BPT values. The BPT estimates provide a rough order-of-magnitude analysis of health consequences from directly-emitted PM and precursors to PM (with no secondary formation). However, the multipliers do not account for project-specific characteristics, receptor locations, or local dispersion characteristics. The resultant health effects are therefore reflective of national averages and may not be exact when applied to the project-level. Nonetheless, the estimates can be used to present an informational and scaled health risk analysis of directly-emitted PM and precursors to PM (with no secondary formation).

Approach to Greenhouse Gas Analysis

Applicability of Available Thresholds

Below is additional detail describing potential threshold approaches for the evaluation of greenhouse gas (GHG) emissions.

Compliance with a Qualified GHG Reduction Strategy

The Office of Planning and Research (OPR) acknowledges that the State Legislature encourages lead agencies to tier or streamline their environmental documents whenever feasible, and that GHG emissions may be best analyzed and mitigated at the programmatic level (California Office of Planning and Research 2018). A qualified plan may be used in the cumulative impact analysis for later projects when the analysis “identifies those requirements specified in the plan that apply to the project.” For a GHG reduction plan to be considered a qualified plan, it must meet certain criteria established under State California Environmental Quality Act (CEQA) Guidelines Sections 15183.5 (b) and 15064.4, also specified above. Consequently, if a project is consistent with a local Climate Action Plan (CAP) that was created to meet that area’s fair share reductions towards the Assembly Bill (AB) 32 GHG target for 2020, then the project would be considered consistent with statewide GHG reduction goals for 2020. Additionally, if a CAP was adopted that was consistent with the State’s overall goals for post-2020, including the downward trajectory as clarified in Senate Bill (SB) 32 and Executive Order (EO) S-03-05, and a project is consistent with that CAP, it would be considered consistent with the State’s post-2020 GHG emission strategy. Section 15183.5 also specifies that the project’s CEQA analysis “must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project.”

The City of San Bruno developed a draft CAP in 2012. However, the CAP has not been adopted. Therefore, the CAP is not a “qualified GHG reduction strategy” under State CEQA Guidelines and compliance with the CAP is not an appropriate threshold approach for the Project’s analysis.

Performance-Based Reductions

Performance-based thresholds are based on a percentage reduction from a projected future condition; for example, reducing future Business As Usual (BAU) emissions by the AB 32 target of 29 percent (below 2020 BAU levels) through a combination of State measures, project design features (e.g., renewable energy), or mitigation. The Bay Area Air Quality Management District (BAAQMD) recommends a 26 percent reduction from 2020 BAU levels to meet the AB 32 target (Bay Area Air Quality Management District 2017).

Based on the Court’s reasoning in the Newhall Ranch decision (*Centers for Biological Diversity et al. vs. California Department of Fish and Wildlife*, California Supreme Court, 2015) relating a given project to the achievement of State reduction targets may require adjustments to the California Air Resources Board’s (CARB’s) statewide BAU model to not only isolate new development emissions, but also to consider unique geographic conditions and operational characteristics that may affect the performance of reduction measures in certain locations. To date, this type of adjustment to the statewide BAU target has not been performed and, therefore, is not appropriate for the project’s analysis. The primary value of a performance-based target, as indicated in the Newhall Ranch decision, is that it can provide a scenario by which to evaluate the effectiveness of a project’s reduction efficiency relative to an unmitigated condition. As such, future year targets can be used to benchmark performance, using either statewide or regional emission targets, to determine a project’s fair share of mitigation.

Numeric Bright-Line Thresholds

Numerical bright-line thresholds identify the point at which additional analysis and mitigation of project-related GHG emission impacts is necessary. The BAAQMD has not developed bright-line thresholds for construction, but has for the operation of land use development projects (1,100 metric tons of carbon dioxide equivalent [CO₂e] per year) and stationary source (10,000 metric tons of CO₂e per year) projects. The land use development threshold is based on a gap analysis¹ and ties back to the state's AB 32 reduction target (1990 levels by 2020).² Because the buildout years for the Phase I Development and the Specific Plan are 2022 and 2040, respectively, use of BAAQMD's numeric-bright line land use development threshold tailored to 2020 reduction targets would not be appropriate for the project's analysis.

The stationary source threshold is derived from the California Air Pollution Control Officers Association's capture rate analysis of required reductions needed to meet EO S-3-05, which indicates that in order to reach the 2050 milestone, future BAU emissions will need to be reduced by 90 percent (California Air Pollution Control Officers Association 2009). The stationary source threshold is used, in part, to analyze project impacts and is further discussed below, under Section 3.4.2.1, *Thresholds of Significance*.

Efficiency-Based Thresholds

Another type of quantitative threshold is an efficiency-based threshold. Efficiency-based thresholds represent the GHG efficiency needed for development to achieve California's GHG emissions targets. While the Newhall Ranch decision did not specifically recommend the efficiency-based approach, the ruling did note that numerical threshold approaches may be appropriate for determining significance of GHG emissions and to emphasize the consideration of GHG efficiency. Efficiency-based thresholds allow lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the State's reduction goals. Efficiency-based thresholds for a residential project can be expressed on a per-capita basis, for an office project on a per-employee basis, or for a mixed-use project on a per service population (the sum of jobs and residents) basis.

The BAAQMD has developed GHG efficiency thresholds for land use projects (4.6 metric tons of carbon CO₂e per service population) and plans (6.6 metric tons of CO₂e per service population) with GHG emissions resulting from a mixture of building energy, transportation, solid waste, and other emissions. These threshold values are based on the required efficiency emissions that these sources must achieve per service population (i.e., per the sum of jobs and residents) to meet the state's 2020 reduction targets. Because the buildout years for the Phase I Development and the Specific Plan are 2022 and 2040, respectively, the use of BAAQMD's performance-based thresholds tailored to 2020 reduction targets would not be appropriate for the project's analysis.

CARB (2017) recommends statewide efficiency targets of no more than 6 metric tons of CO₂e per capita by 2030 and no more than 2 metric tons of CO₂e per capita by 2050. These targets were derived based on total statewide emissions from all emission categories (including emissions from stationary and industrial sources) and the reductions needed to achieve California's 2030 statewide target under SB 32 and the longer-term EO S-3-05 reduction goal of 80 percent below 1990 levels by 2050.

¹ The gap analysis demonstrates the reductions needed at the residential and commercial land use levels to achieve State targets. Capture is the process of estimating the portion of projects that would result in emissions that exceed a significance threshold and would be subject to mitigation.

² The AB 32 Scoping Plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020.

Because CARB's per capita efficiency targets are based on statewide emissions, they represent an average efficiency that does not specifically consider the unique geographic and project-specific features that could influence emissions reductions achieved the Project. The targets are also based on an inventory of GHG emissions from existing and future development through 2050, and therefore do not isolate the required emissions reductions from just new development that are needed to meet state goals. Tailoring CARB's per capita targets to local project conditions is not possible with the available data published in the 2017 Climate Change Scoping Plan. Moreover, the thresholds evaluate emissions per person or resident; the project is primarily a commercial development and does not include a significant amount of new housing units.

Accordingly, CARB's efficiency targets are not appropriate thresholds to independently evaluate the significance of project-generated GHG emissions.

Compliance with Regulatory Programs

A lead agency could rely on regulatory compliance to show less-than-significant GHG impact if the project complies with or exceeds those programs adopted by CARB or other State agencies. However, such analysis is only applicable within the area governed by the regulations. For example, consistency with regulations addressing building efficiency would not suffice to determine that the project would not have significant GHG emissions from transportation.

The Newhall Ranch decision specifically mentions consistency with the Sustainable Community Strategies (per SB 375) and AB 32 as potential mechanisms for evaluating significance. A lead agency could assess project-level consistency with AB 32 in whole or part by evaluating whether the project complies with applicable policies in the AB 32 Scoping Plan. The AB 32 Scoping Plan does not consider deeper reductions needed to meet the state's 2030 target under SB 32. Accordingly, exclusively relying on consistency with the AB 32 Scoping Plan and related programs to evaluate emissions generated by land use development projects constructed after 2020 would not fully consider a project's potential GHG impacts to the state's long-term reduction trajectory.

More recent guidance on GHG reduction strategies and thresholds for operational emissions has been provided at the state level through the 2017 Scoping Plan, OPR, and CARB. The 2017 Scoping Plan outlines GHG reduction strategies by emission sector (water, transportation, and energy) required to meet the State's 2030 target under SB 32. OPR (2018) guidance specifies that a "land use development project that produces low vehicle miles traveled (VMT), achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." Further, CARB (2019) guidance specifies per capita VMT reduction targets that would be needed statewide to meet long-term (2050) mobile source GHG reduction targets, considering increased vehicle efficiency and reduced carbon content in vehicle fuels.

To the extent the Specific Plan and the Phase I Development policies applicable to GHGs comply with or exceed the regulations outlined in the 2017 Scoping Plan and adopted by CARB or other State agencies, the Project could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill the statewide goal for reducing GHG emissions. The Project's compliance with regulatory programs adopted by CARB and other State agencies is therefore used to evaluate the significance of the Phase I Development and the Specific Plan's GHG emissions. While the regulatory framework to achieve long-term (post-2030) emissions reductions is in its infancy, many of the programs outlined in the 2017 Scoping Plan are likely to be carried forward or have already been adopted with post-2030 requirements (e.g., Renewable Portfolios Standard). Accordingly, evaluating

consistency with these programs and relevant guidance published by OPR and CARB for the reduction of long-term emissions is therefore also considered in the analysis of the Project's emissions.

Selected Project Construction Threshold Approach

As discussed above, BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed, and that a determination regarding the significance of these GHG emissions be made with respect to whether a project is consistent with the emission reduction goals. The BAAQMD further recommends incorporation of Best Management Practices to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

Selected Project Construction Threshold Approach

While BAAQMD has adopted GHG thresholds for operational emissions from land use development projects (numeric and efficiency), these thresholds are based on the state's 2020 target under AB 32 and do not consider deeper reductions needed to meet the state's 2030 target under SB 32. Accordingly, exclusively relying on BAAQMD's adopted thresholds to evaluate emissions generated by land use development projects constructed after 2020 would not fully consider a project's potential GHG impacts to the state's long-term reduction trajectory. Similarly, the City of San Bruno does not have qualified GHG reduction plan and available statewide BAU and efficiency-metrics do not meet recommendations from the Courts for appropriate project-level GHG thresholds.

Based on the available threshold concepts recommended by air districts and the courts, GHG emissions from the Project are evaluated on a sector-by-sector (e.g., energy, water) basis using the most applicable regulatory programs, policies, and thresholds recommend by BAAQMD, CARB, and OPR, as described below ("compliance with regulatory programs"). Buildout years for the Phase I Development and the Specific Plan are 2022 and 2040, respectively. The State has a reduction goal of carbon neutrality set by B-55-18. However, the State's goal has not been codified in law, and neither the State nor the City has adopted a plan or framework to achieve the 2045 reduction goal. The State's 2030 target has been codified in law through SB 32 and the 2017 Climate Change Scoping Plan adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the Project. The analysis focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Emissions generated at full buildout in 2040 are used as an indicator for long-term emissions reduction progress and are evaluated as they relate to the Project's impacts on the State's long-term goal expressed under B-55-18. Where applicable, guidance from CARB, OPR, and other agencies related to long-term emissions reduction requirements is incorporated into the analysis.

- **Mobile sources:** CARB's 2017 Scoping Plan recognizes that while vehicle technologies and low carbon fuels will continue to reduce transportation sector emissions, VMT reductions are necessary to achieve California's long-term GHG reduction target. Recent CARB analysis demonstrate that a 14.3 percent reduction of VMT per service population by 2050 (compared to a 2015-2018 average) would be needed statewide to meet their long-term climate change planning goals through 2050. This reduction target is consistent with recent OPR guidance issued on SB 743, as discussed in Section 3.4.1, *Existing Conditions* and Section 3.10, *Transportation*. The Project would be constructed after 2020 and have a buildout near 2040 or later. Accordingly, use of CARB's 14.3 percent reduction of VMT per service population threshold for mobile source emissions is applicable to the Project. Mobile source emissions would be considered less than significant if the Project achieves a per service population VMT reduction of at least 14.3 percent (compared to a 2015-2018 average). In addition to VMT reductions, compliance with

regulatory programs (e.g., AB 1493, Low Carbon Fuel Standards, SB 743, and SB 375) would also be required to reduce the statewide mobile GHG emissions for a less than significant impact.

- **Energy, water, waste, area, and land sources.** CARB's 2017 Scoping Plan, which relies heavily on state programs (e.g., Title 24 and SB 100), outlines strategies required to reduce statewide GHG emissions in order to achieve California's SB 32 reduction target. Projects that implement applicable strategies from the 2017 Scoping Plan would be consistent with the state's GHG reduction framework and requirements for these sectors. Accordingly, a sector-by-sector review of the respective project features and sustainability measures included in the Specific Plan and Phase I Development is conducted to evaluate consistency with the 2017 Scoping Plan. This assessment also considers recent OPR (2018) guidance related to the long-term reduction of statewide emissions. Accordingly, energy, water, waste, area, and land use source emissions would be considered less than significant if the Project is consistent with all applicable 2017 Scoping Plan strategies and supporting regulations and guidance.
- **Stationary sources.** BAAQMD has adopted a threshold of 10,000 metric tons CO₂e for stationary source projects. This threshold is consistent with stationary source thresholds adopted by other air quality management districts throughout the state. The threshold level is intended to capture 95 percent of all GHG emissions from new permit applications from stationary sources in the San Francisco Bay Area Air Basin and would do so by capturing only the large, significant projects since permit applications with emissions above the 10,000 metric tons CO₂e threshold account for less than 10 percent of applications. The emergency generators included as part of the Project would be permitted sources, and as such, the BAAQMD's 10,000 metric tons CO₂e threshold is appropriate for analyzing the significance of emissions generated by the generators. Stationary source emissions would be considered less than significant if emissions are less than 10,000 metric tons CO₂e.

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