

Appendix A
Air Quality and GHG Worksheets

Appendix A.1

Constructions Assumptions and Emissions Summaries

Century Boulevard Trunk Line Units 1 & 2
MND
Air Quality and Greenhouse Gas Assessment

last updated:
4/10/2018

Phase	Pipeline Length		Daily Disturbance	Total Disturbance
	ft	mi	sq ft	sq ft
Unit 1				
Phase 1	5,000	0.95	40.28	35,000
Phase 2	1,450	0.27	22	10,150
Phase 3	3,150	0.60	23	22,050
Unit 2	8,300	1.57	76	58,100

Phase	Start Date	End Date	Days	Demo (CY)	Demo				Soil				Paving Total (CY)	Paving/day (CY)	Vendor One-Way Trips/Max Day ^a	Worker One-Way Trips/Max Day ^b
					Demo/day (CY)	Demo Truck Capacity (CY)	Demo Truck One-Way Trips	Demo Truck Daily One-Way Trips	Soil Export (CY)	Soil Export/day (CY)	Soil Import (CY)	Soil Haul Truck Capacity (CY)				
Unit 1 - Phase 1	2/1/2019	6/1/2022	869	901	1.0	20	45	7,407	9		20	12,166	14	463	0.5	12
Unit 1 - Phase 2	9/1/2018	6/1/2020	456	1,351	3.0	20	68	11,111	24		20	6,384	14	694	1.5	12
Unit 1 - Phase 3	9/1/2018	6/1/2022	978	1,351	1.4	20	68	11,111	11		20	13,692	14	694	0.7	12
Unit 2 - Phase 1	1/1/2020	12/1/2022	762	2,663	3.5	20	133	21,518	28		20	10,668	14	1,852	2.4	12
Regulator Station	1/1/2025	12/31/2025	261					222	1		20	2,064	8			12

Notes:

- a. Demo, soil export, and paving values for Unit 1 were proportioned based on size of project; 25% for Phase 1 and 37.5% for Phase 2/3
- b. Pipeline disturbance width assumed to be 7 ft per data request

Unmitigated Maximum Daily Regional Construction Emissions

Source	VOC	CO	NOX	PM10	PM2.5	SO2
Unit 1 -Phase 1	6	52	54	3.5	2.6	0.2
Unit 1 - Phase 2	3	25	27	1.7	1.4	0.1
Unit 1 -Phase 3	3	24	26	1.6	1.3	0.1
Unit 2	2	24	23	1.4	1.1	0.1
Regulator Station	2	21	17	1.2	0.7	0.1
Maximum Daily Emissions	14	124	130	8.2	6.4	0
SCAQMD Thresholds	75	550	100	150	55	150
Exceeds Threshold?	No	No	Yes	No	No	No

Mitigated Maximum Daily Regional Construction Emissions

Source	VOC	CO	NOX	PM10	PM2.5	SO2
Unit 1 -Phase 1	5	59	38	2.9	2.1	0.2
Unit 1 - Phase 2	3	27	19	1.4	1.1	0.1
Unit 1 -Phase 3	2	27	18	1.3	1.0	0.1
Unit 2	2	26	16	1.2	0.9	0.1
Regulator Station	2	24	13	1.0	0.6	0.1
Maximum Daily Emissions	12	139	90	6.8	5.1	0.3
SCAQMD Thresholds	75	550	100	150	55	150
Exceeds Threshold?	No	No	No	No	No	No

Source	CO	NOx	PM10	PM2.5
Water Trucks	0.1	0.4	0.0	0.0
Demolition	0	0	0.0	0.0
Excavation	20	22	1.1	1.0
Paving	21	21	1.0	1.0
Maximum Localized Emissions	21	22	1.1	1.0
Localized Significance Threshold	664	91	5.0	3.0
Exceeds Threshold?	No	No	No	No

Notes:

Based on SRA 3 at 25 meters for a 1-acre site

Localized emissions taken from Unit 2 construction

Water Truck	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Cle:	0.005908	0.032369	0.12904	0.00906	0.003548	0.001322	138.5655	0.000274	0.004558	139.93077
Pounds per day - Grading/Excavator	0.005905	0.0325	0.127343	0.009057	0.003546	0.001317	137.99731	0.000274	0.00454	139.35702
Pounds per day - Paving	0.005888	0.032779	0.122597	0.00905	0.003539	0.001303	136.57312	0.000273	0.004493	137.91885

Fugitive Dust - Grubbing/Land Clearing	0.1	0.0208
Fugitive Dust - Grading/Excavation	0.1	0.0208
Fugitive Dust - Drainage/Utilities/Subgrade	0.1	0.0208

OffRoad

Grubbing/Land Clearing	0	0	0	0	0	0	0	0	0	0
Grading/Excavation	2.265441	19.93983	22.15148	1.065204	1.013098	0.040962	3912.1575	0.899417	0.033435	3944.6064
Paving	2.302418	21.30862	20.50667	1.008512	0.963377	0.03609	3461.7988	0.681301	0.028671	3487.3753
	0.005908	0.032369	0.12904	0.10906	0.024348	0.001322	138.5655	0.000274	0.004558	139.93077
	2.271346	19.97233	22.27882	1.174261	1.037444	0.042279	4050.1548	0.899691	0.037974	4083.9634
	2.308306	21.3414	20.62926	1.117562	0.987716	0.037393	3598.3719	0.681574	0.033164	3625.2942
	2	21	22	1.2	1.0	0.0	4050	1	0	4084

GHG Emissions

Source	MTCO2e
Unit 1 - Phase 1	1,554
Unit 1 - Phase 2	822
Unit 1 - Phase 3	1,771
Unit 2	1,345
Regulator Station	436
Total GHG Emissions	5,928
Amortized Emissions	198
Significance Threshold	10,000
Exceeds Threshold?	No

Construction Equipment by Phase

Phase	Equipment	Engine Tier	Number	HP	Load Factor	Hours/day
Excavation	Concrete/Industrial Saws	Model Default Tier	1	20	0.73	8
Excavation	Bore/Drill Rigs	Tier 4	1	206	0.5	8
Excavation	Cranes	Tier 4	1	226	0.29	8
Excavation	Excavators	Model Default Tier	1	163	0.38	8
Excavation	Generator Sets	Model Default Tier	1	84	0.74	8
Excavation	Pumps	Model Default Tier	1	84	0.74	8
Excavation	Tractors/Loaders/Backhoes	Model Default Tier	2	98	0.37	8
Paving	Air Compressors	Model Default Tier	1	78	0.48	8
Paving	Crushing/Proc. Equipment	Model Default Tier	1	85	0.78	8
Paving	Pumps	Model Default Tier	1	84	0.74	8
Paving	Rubber Tired Dozers	Tier 4	1	255	0.4	8
Paving	Surfacing Equipment	Tier 4	1	254	0.3	8
Paving	Tractors/Loaders/Backhoes	Model Default Tier	1	98	0.37	8

Appendix A.2

**Unmitigated Roadway
Construction Model Runs**

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Trunk Line Unit 1 - Phase 1														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.24	3.00	1.33	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,881.13	0.02	0.05	1,896.13
Grading/Excavation	2.68	22.98	25.53	1.47	1.37	0.10	1.24	1.21	0.02	0.06	5,798.97	0.93	0.08	5,846.27
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	2.50	23.66	21.69	1.17	1.17	0.00	1.03	1.03	0.00	0.05	5,255.97	0.70	0.07	5,295.19
Maximum (pounds/day)	2.92	25.98	26.85	1.74	1.54	0.20	1.32	1.28	0.04	0.08	7,680.10	0.95	0.13	7,742.40
Total (tons/construction project)	0.77	6.73	7.19	0.42	0.39	0.03	0.35	0.34	0.01	0.02	1,698.91	0.26	0.02	1,712.58

Notes:
 Project Start Year -> 2019
 Project Length (months) -> 29
 Total Project Area (acres) -> 1
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	3	0	280	900	40
Grading/Excavation	21	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	1	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Trunk Line Unit 1 - Phase 1														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.10	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	60.01	0.00	0.00	54.87
Grading/Excavation	0.64	5.50	6.11	0.35	0.33	0.02	0.30	0.29	0.00	0.01	1,387.40	0.22	0.02	1,268.91
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.12	1.13	1.04	0.06	0.06	0.00	0.05	0.05	0.00	0.00	251.50	0.03	0.00	229.86
Maximum (tons/phase)	0.64	5.50	6.11	0.35	0.33	0.02	0.30	0.29	0.00	0.01	1387.40	0.22	0.02	1,268.91
Total (tons/construction project)	0.77	6.73	7.19	0.42	0.39	0.03	0.35	0.34	0.01	0.02	1698.91	0.26	0.02	1,553.64

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name	Trunk Line Unit 1 - Phase 1			
Construction Start Year	2019	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	29.00	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	0.95	miles		
Total Project Area	0.80	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		21.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		2.60
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	1.30	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation	No Mitigation	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	21.75	2.90	2/1/2019	1/1/2019
Grading/Excavation	0.00	11.60		3/31/2019
Drainage/Utilities/Sub-Grade		10.15		1/21/2021
Paving		4.35	2/1/2022	1/21/2021
Totals (Months)		29	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	2	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.23	0.91	0.06	0.02	0.01	971.13	0.00	0.03	980.70
Tons per const. Period - Grading/Excavation	0.01	0.05	0.22	0.02	0.01	0.00	232.34	0.00	0.01	234.63
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.05	0.22	0.02	0.01	0.00	232.34	0.00	0.01	234.63

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.91	0.06	0.02	0.01	973.34	0.00	0.03	982.93
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.03	0.00	0.00	0.00	31.05	0.00	0.00	31.36
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving	0.00	0.01	0.04	0.00	0.00	0.00	45.75	0.00	0.00	46.20
Total tons per construction project	0.00	0.02	0.07	0.01	0.00	0.00	76.79	0.00	0.00	77.55

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip		15									
One-way trips/day		2									
No. of employees: Grubbing/Land Clearing		30				60	900.00				
No. of employees: Grading/Excavation		30				60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving		30				60	900.00				
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.02	1.19	0.13	0.05	0.02	0.00	381.71	0.01	0.01	383.53
Grading/Excavation (grams/mile)		0.02	1.12	0.12	0.05	0.02	0.00	375.35	0.01	0.00	377.04
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59
Grubbing/Land Clearing (grams/trip)		1.08	2.86	0.23	0.00	0.00	0.00	85.97	0.01	0.01	89.17
Grading/Excavation (grams/trip)		1.03	2.67	0.21	0.00	0.00	0.00	84.77	0.01	0.01	87.73
Draining/Utilities/Sub-Grade (grams/trip)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)		0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.19	2.74	0.28	0.09	0.04	0.01	768.74	0.02	0.01	772.78
Tons per const. Period - Grubbing/Land Clearing		0.01	0.09	0.01	0.00	0.00	0.00	24.52	0.00	0.00	24.65
Pounds per day - Grading/Excavation		0.18	2.58	0.26	0.09	0.04	0.01	755.97	0.02	0.01	759.72
Tons per const. Period - Grading/Excavation		0.04	0.62	0.06	0.02	0.01	0.00	180.86	0.00	0.00	181.76
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47
Tons per const. Period - Paving		0.01	0.10	0.01	0.00	0.00	0.00	33.57	0.00	0.00	33.71
Total tons per construction project		0.06	0.80	0.08	0.03	0.01	0.00	238.96	0.01	0.00	240.12

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust		2		20.00		40.00					
Grading/Excavation - Exhaust		2		20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving		2		20.00		40.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32
Grading/Excavation (grams/mile)		0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.01	0.03	0.13	0.01	0.00	0.00	139.05	0.00	0.00	140.42
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	4.44	0.00	0.00	4.48
Pounds per day - Grading/Excavation		0.01	0.03	0.13	0.01	0.00	0.00	138.73	0.00	0.00	140.10
Tons per const. Period - Grading/Excavation		0.00	0.01	0.03	0.00	0.00	0.00	33.19	0.00	0.00	33.52
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92
Tons per const. Period - Paving		0.00	0.00	0.01	0.00	0.00	0.00	6.54	0.00	0.00	6.60
Total tons per construction project		0.00	0.01	0.04	0.00	0.00	0.00	44.16	0.00	0.00	44.60

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.02	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.

Off-Road Equipment Emissions																
Grubbing/Land Clearing		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Override of Default Number of Vehicles	Program-estimate					pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment						ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Number of Vehicles		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				N/A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Grubbing/Land Clearing												
				Grubbing/Land Clearing												
					pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
					tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day	
Override of Default Number of Vehicles	Program-estimate															
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Bore/Drill Rigs	0.26	1.93	3.33	0.10	0.09	0.01	854.89	0.27	0.01	864.05	
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	0.00	147.09	
1.00				Model Default Tier	Cranes	0.46	2.14	5.51	0.23	0.21	0.01	551.74	0.18	0.00	557.64	
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Excavators	0.26	3.37	2.60	0.13	0.12	0.01	520.67	0.17	0.00	526.23	
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Generator Sets	0.42	3.71	3.59	0.21	0.21	0.01	623.04	0.04	0.00	625.35	
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Pumps	0.44	3.77	3.65	0.22	0.22	0.01	623.04	0.04	0.00	625.41	
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.00				Model Default Tier	Tractors/Loaders/Backhoes	0.44	4.62	4.43	0.29	0.26	0.01	613.44	0.20	0.01	619.98	
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment						ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Number of Vehicles		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grading/Excavation			pounds per day	2.46	20.15	24.23	1.21	1.15	0.04	3,933.14	0.91	0.03	3,965.75	
		Grading/Excavation			tons per phase	0.59	4.82	5.80	0.29	0.27	0.01	941.00	0.22	0.01	948.81	

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default	Mitigation Option	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)												
1.00			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Rubber Tired Dozers	0.85	7.01	8.65	0.40	0.36	0.01	862.27	0.28	0.01	871.53
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Surfacing Equipment	0.18	1.56	2.09	0.08	0.07	0.01	632.36	0.20	0.01	639.18
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving			pounds per day	2.30	21.31	20.51	1.01	0.96	0.04	3,461.80	0.68	0.03	3,487.38
	Paving			tons per phase	0.11	1.02	0.98	0.05	0.05	0.00	165.65	0.03	0.00	166.87
Total Emissions all Phases (tons per construction period) =>					0.70	5.84	6.78	0.34	0.32	0.01	1,106.65	0.25	0.01	1,115.68

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Trunk Line Unit 1 - Phase 2														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.26	3.31	1.39	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,914.93	0.03	0.05	1,930.59
Grading/Excavation	2.84	23.32	26.99	1.58	1.48	0.10	1.33	1.31	0.02	0.06	5,848.82	0.93	0.08	5,896.59
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	2.89	25.17	25.60	1.45	1.45	0.00	1.30	1.30	0.00	0.05	5,320.30	0.72	0.08	5,360.79
Maximum (pounds/day)	2.89	25.17	26.99	1.68	1.48	0.20	1.35	1.31	0.04	0.06	5,848.82	0.93	0.08	5,896.59
Total (tons/construction project)	0.43	3.61	4.05	0.24	0.22	0.01	0.20	0.20	0.00	0.01	898.89	0.14	0.01	906.16

Notes:
 Project Start Year -> 2018
 Project Length (months) -> 15
 Total Project Area (acres) -> 0
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	1	0	280	900	40
Grading/Excavation	11	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	1	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Trunk Line Unit 1 - Phase 2														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.02	0.00	0.00	29.28
Grading/Excavation	0.36	2.92	3.38	0.20	0.18	0.01	0.17	0.16	0.00	0.01	733.44	0.12	0.01	670.81
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.07	0.63	0.64	0.04	0.04	0.00	0.03	0.03	0.00	0.00	133.43	0.02	0.00	121.97
Maximum (tons/phase)	0.36	2.92	3.38	0.20	0.18	0.01	0.17	0.16	0.00	0.01	733.44	0.12	0.01	670.81
Total (tons/construction project)	0.43	3.61	4.05	0.24	0.22	0.01	0.20	0.20	0.00	0.01	898.89	0.14	0.01	822.06

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name	Trunk Line Unit 1 - Phase 2			
Construction Start Year	2018	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	15.20	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	0.27	miles		
Total Project Area	0.23	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		11.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		1.40
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	0.70	
Mitigation Options				
On-road Fleet Emissions Mitigation	Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer			
Off-road Equipment Emissions Mitigation	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard			

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	11.40	1.52	9/1/2018	1/1/2018
Grading/Excavation	0.00	6.08	12/16/2018	2/17/2018
Drainage/Utilities/Sub-Grade		5.32		1/30/2019
Paving		2.28	3/25/2020	1/30/2019
Totals (Months)		15	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	1	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.22	0.91	0.06	0.02	0.01	973.70	0.00	0.03	983.30
Tons per const. Period - Grading/Excavation	0.01	0.03	0.11	0.01	0.00	0.00	122.10	0.00	0.00	123.31
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.03	0.11	0.01	0.00	0.00	122.10	0.00	0.00	123.31

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.93	0.06	0.02	0.01	981.66	0.00	0.03	991.33
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.02	0.00	0.00	0.00	16.41	0.00	0.00	16.58
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.90	0.06	0.02	0.01	969.96	0.00	0.03	979.52
Tons per const. Period - Paving	0.00	0.01	0.02	0.00	0.00	0.00	24.33	0.00	0.00	24.57
Total tons per construction project	0.00	0.01	0.04	0.00	0.00	0.00	40.74	0.00	0.00	41.14

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip	15										
One-way trips/day	2										
No. of employees: Grubbing/Land Clearing	30					60	900.00				
No. of employees: Grading/Excavation	30					60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving	30					60	900.00				
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.03	1.33	0.15	0.05	0.02	0.00	393.83	0.01	0.01	395.91	
Grading/Excavation (grams/mile)	0.02	1.20	0.13	0.05	0.02	0.00	382.23	0.01	0.01	384.06	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08	
Grubbing/Land Clearing (grams/trip)	1.17	3.21	0.26	0.00	0.00	0.00	87.83	0.02	0.01	91.49	
Grading/Excavation (grams/trip)	1.08	2.88	0.23	0.00	0.00	0.00	86.05	0.01	0.01	89.27	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.21	3.06	0.32	0.09	0.04	0.01	793.04	0.02	0.01	797.64	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.05	0.01	0.00	0.00	0.00	13.26	0.00	0.00	13.34	
Pounds per day - Grading/Excavation	0.19	2.75	0.29	0.09	0.04	0.01	769.79	0.02	0.01	773.85	
Tons per const. Period - Grading/Excavation	0.02	0.35	0.04	0.01	0.00	0.00	96.53	0.00	0.00	97.04	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.17	2.47	0.25	0.09	0.04	0.01	748.16	0.02	0.01	751.74	
Tons per const. Period - Paving	0.00	0.06	0.01	0.00	0.00	0.00	18.76	0.00	0.00	18.85	
Total tons per construction project	0.03	0.46	0.05	0.02	0.01	0.00	128.56	0.00	0.00	129.23	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	2			20.00		40.00					
Grading/Excavation - Exhaust	2			20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving	2			20.00		40.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93	
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.01	0.03	0.13	0.01	0.00	0.00	140.24	0.00	0.00	141.62	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.00	2.37	
Pounds per day - Grading/Excavation	0.01	0.03	0.13	0.01	0.00	0.00	139.10	0.00	0.00	140.47	
Tons per const. Period - Grading/Excavation	0.00	0.00	0.02	0.00	0.00	0.00	17.44	0.00	0.00	17.62	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.01	0.03	0.13	0.01	0.00	0.00	138.57	0.00	0.00	139.93	
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	3.48	0.00	0.00	3.51	
Total tons per construction project	0.00	0.01	0.02	0.00	0.00	0.00	23.26	0.00	0.00	23.49	

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.01	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.

Off-Road Equipment Emissions														
Grubbing/Land Clearing	Default	Mitigation Option	Default	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)												
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment	If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day	
Override of Default Number of Vehicles	Program-estimate															
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Bore/Drill Rigs	0.26	1.93	3.46	0.10	0.09	0.01	865.01	0.27	0.01	874.16	
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	0.00	147.09	
1.00				Model Default Tier	Cranes	0.50	2.25	5.91	0.25	0.23	0.01	559.24	0.18	0.00	565.14	
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Excavators	0.27	3.37	2.79	0.13	0.12	0.01	527.68	0.17	0.00	533.24	
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Generator Sets	0.45	3.72	3.79	0.23	0.23	0.01	623.04	0.04	0.00	625.42	
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Pumps	0.47	3.78	3.85	0.24	0.24	0.01	623.04	0.04	0.00	625.48	
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.00				Model Default Tier	Tractors/Loaders/Backhoes	0.47	4.66	4.75	0.32	0.29	0.01	621.88	0.20	0.01	628.43	
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment						ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Number of Vehicles		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grading/Excavation				pounds per day	2.60	20.31	25.66	1.31	1.25	0.04	3,966.23	0.91	0.03	3,998.97
		Grading/Excavation				tons per phase	0.33	2.55	3.22	0.16	0.16	0.01	497.36	0.11	0.00	501.47

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default	Mitigation Option	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
1.00			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.32	2.44	2.25	0.15	0.15	0.00	375.26	0.03	0.00	376.83
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Crushing/Proc. Equipment	0.55	4.35	3.80	0.24	0.24	0.01	664.53	0.05	0.00	667.25
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Pumps	0.42	3.76	3.53	0.21	0.21	0.01	623.04	0.04	0.00	625.36
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Rubber Tired Dozers	0.96	7.94	10.15	0.47	0.43	0.01	863.07	0.28	0.01	872.34
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Surfacing Equipment	0.20	1.64	2.47	0.09	0.08	0.01	633.85	0.20	0.01	640.68
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Tractors/Loaders/Backhoes	0.21	2.30	2.13	0.13	0.12	0.00	303.87	0.10	0.00	307.14
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	2.67	22.43	24.32	1.29	1.23	0.04	3,463.62	0.70	0.03	3,489.61
		Paving		tons per phase	0.07	0.56	0.61	0.03	0.03	0.00	86.87	0.02	0.00	87.52
Total Emissions all Phases (tons per construction period) =>					0.39	3.11	3.83	0.20	0.19	0.01	584.23	0.13	0.00	588.99

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name		Trunk Line Unit 1 - Phase 2		
Construction Start Year	2018	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	33.00	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	0.62	miles		
Total Project Area	0.52	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		11.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		1.40
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	0.70	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation		Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing		3.30	9/1/2018	1/1/2018
Grading/Excavation	24.75	13.20	12/16/2018	4/12/2018
Drainage/Utilities/Sub-Grade	0.00	11.55		5/4/2020
Paving		4.95	1/1/2022	5/4/2020
Totals (Months)		33	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	1	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.22	0.91	0.06	0.02	0.01	971.76	0.00	0.03	981.33
Tons per const. Period - Grading/Excavation	0.01	0.06	0.25	0.02	0.01	0.00	264.56	0.00	0.01	267.17
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.06	0.25	0.02	0.01	0.00	264.56	0.00	0.01	267.17

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.93	0.06	0.02	0.01	981.66	0.00	0.03	991.33
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.03	0.00	0.00	0.00	35.63	0.00	0.00	35.99
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving	0.00	0.01	0.05	0.00	0.00	0.00	52.05	0.00	0.00	52.57
Total tons per construction project	0.00	0.02	0.08	0.01	0.00	0.00	87.69	0.00	0.00	88.55

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated					
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip		15									
One-way trips/day		2									
No. of employees: Grubbing/Land Clearing		30				60	900.00				
No. of employees: Grading/Excavation		30				60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving		30				60	900.00				
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.03	1.33	0.15	0.05	0.02	0.00	393.83	0.01	0.01	395.91
Grading/Excavation (grams/mile)		0.02	1.14	0.12	0.05	0.02	0.00	376.76	0.01	0.01	378.48
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59
Grubbing/Land Clearing (grams/trip)		1.17	3.21	0.26	0.00	0.00	0.00	87.83	0.02	0.01	91.49
Grading/Excavation (grams/trip)		1.04	2.71	0.22	0.00	0.00	0.00	85.03	0.01	0.01	88.04
Draining/Utilities/Sub-Grade (grams/trip)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/trip)		0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.21	3.06	0.32	0.09	0.04	0.01	793.04	0.02	0.01	797.64
Tons per const. Period - Grubbing/Land Clearing		0.01	0.11	0.01	0.00	0.00	0.00	28.79	0.00	0.00	28.95
Pounds per day - Grading/Excavation		0.18	2.61	0.27	0.09	0.04	0.01	758.79	0.02	0.01	762.61
Tons per const. Period - Grading/Excavation		0.05	0.71	0.07	0.03	0.01	0.00	206.58	0.01	0.00	207.62
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47
Tons per const. Period - Paving		0.01	0.11	0.01	0.01	0.00	0.00	38.20	0.00	0.00	38.36
Total tons per construction project		0.07	0.94	0.10	0.03	0.01	0.00	273.57	0.01	0.00	274.93

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust		2		20.00		40.00					
Grading/Excavation - Exhaust		2		20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving		2		20.00		40.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)		0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.01	0.03	0.13	0.01	0.00	0.00	140.24	0.00	0.00	141.62
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	5.09	0.00	0.00	5.14
Pounds per day - Grading/Excavation		0.01	0.03	0.13	0.01	0.00	0.00	138.82	0.00	0.00	140.19
Tons per const. Period - Grading/Excavation		0.00	0.01	0.04	0.00	0.00	0.00	37.79	0.00	0.00	38.17
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92
Tons per const. Period - Paving		0.00	0.00	0.01	0.00	0.00	0.00	7.44	0.00	0.00	7.51
Total tons per construction project		0.00	0.01	0.05	0.00	0.00	0.00	50.32	0.00	0.00	50.82

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.03	0.02	0.01
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default	Mitigation Option	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
	1.00		Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.00		Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.00		Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.00		Model Default Tier	Rubber Tired Dozers	0.85	7.01	8.65	0.40	0.36	0.01	862.27	0.28	0.01	871.53
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.00		Model Default Tier	Surfacing Equipment	0.18	1.56	2.09	0.08	0.07	0.01	632.36	0.20	0.01	639.18
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1.00		Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	2.30	21.31	20.51	1.01	0.96	0.04	3,461.80	0.68	0.03	3,487.38
		Paving		tons per phase	0.13	1.16	1.12	0.05	0.05	0.00	188.49	0.04	0.00	189.89
Total Emissions all Phases (tons per construction period) =>					0.80	6.66	7.79	0.39	0.37	0.01	1,260.82	0.28	0.01	1,271.09

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> <i>Trunk Line Unit 2</i>														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.22	2.73	1.28	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,856.68	0.02	0.05	1,871.18
Grading/Excavation	2.48	22.56	23.41	1.33	1.23	0.10	1.10	1.08	0.02	0.06	5,751.69	0.92	0.08	5,798.39
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	2.50	23.66	21.69	1.17	1.17	0.00	1.03	1.03	0.00	0.05	5,255.97	0.70	0.07	5,295.19
Maximum (pounds/day)	2.50	23.66	23.41	1.43	1.23	0.20	1.12	1.08	0.04	0.06	5,751.69	0.92	0.08	5,798.39
Total (tons/construction project)	0.63	5.77	5.82	0.33	0.31	0.02	0.28	0.27	0.00	0.02	1,471.09	0.22	0.02	1,482.88

Notes:
 Project Start Year -> 2020
 Project Length (months) -> 25
 Total Project Area (acres) -> 1
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	4	0	280	900	40
Grading/Excavation	34	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	3	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> <i>Trunk Line Unit 2</i>														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.08	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	51.88	0.00	0.00	47.43
Grading/Excavation	0.52	4.70	4.88	0.28	0.26	0.02	0.23	0.23	0.00	0.01	1,198.94	0.19	0.02	1,096.50
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.10	0.99	0.91	0.05	0.05	0.00	0.04	0.04	0.00	0.00	220.28	0.03	0.00	201.33
Maximum (tons/phase)	0.52	4.70	4.88	0.28	0.26	0.02	0.23	0.23	0.00	0.01	1198.94	0.19	0.02	1,096.50
Total (tons/construction project)	0.63	5.77	5.82	0.33	0.31	0.02	0.28	0.27	0.00	0.02	1471.09	0.22	0.02	1,345.26

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name				
Construction Start Year	2020	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	25.40	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	1.57	miles		
Total Project Area	1.33	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		34.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		4.20
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	2.90	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation		Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml). Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	18.95	2.54	1/1/2020	1/1/2020
Grading/Excavation		10.16	4/15/2020	3/19/2020
Drainage/Utilities/Sub-Grade	0.00	8.89		10/17/2021
Paving		3.81	8/1/2022	10/17/2021
Totals (Months)		25	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Please note: You have entered a different number of months than the project length shown in cell D16.

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	2	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)	0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.23	0.89	0.06	0.02	0.01	965.98	0.00	0.03	975.50
Tons per const. Period - Grading/Excavation	0.01	0.05	0.19	0.01	0.01	0.00	201.36	0.00	0.01	203.34
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.05	0.19	0.01	0.01	0.00	201.36	0.00	0.01	203.34

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)	0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.23	0.90	0.06	0.02	0.01	969.96	0.00	0.03	979.52
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.03	0.00	0.00	0.00	27.10	0.00	0.00	27.37
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving	0.00	0.01	0.04	0.00	0.00	0.00	40.07	0.00	0.00	40.46
Total tons per construction project	0.00	0.02	0.06	0.00	0.00	0.00	67.17	0.00	0.00	67.83

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated					
User Input						Daily Trips	Daily VMT					
Miles/ one-way trip		15										
One-way trips/day		2										
No. of employees: Grubbing/Land Clearing		30				60	900.00					
No. of employees: Grading/Excavation		30				60	900.00					
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00					
No. of employees: Paving		30				60	900.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)		0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08	
Grading/Excavation (grams/mile)		0.02	1.03	0.11	0.05	0.02	0.00	365.19	0.01	0.00	366.71	
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)		0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59	
Grubbing/Land Clearing (grams/trip)		1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84	
Grading/Excavation (grams/trip)		0.96	2.40	0.19	0.00	0.00	0.00	82.85	0.01	0.01	85.47	
Draining/Utilities/Sub-Grade (grams/trip)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)		0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77	
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing		0.17	2.47	0.25	0.09	0.04	0.01	748.16	0.02	0.01	751.74	
Tons per const. Period - Grubbing/Land Clearing		0.00	0.07	0.01	0.00	0.00	0.00	20.90	0.00	0.00	21.00	
Pounds per day - Grading/Excavation		0.17	2.36	0.24	0.09	0.04	0.01	735.55	0.02	0.01	738.92	
Tons per const. Period - Grading/Excavation		0.03	0.49	0.05	0.02	0.01	0.00	153.33	0.00	0.00	154.03	
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving		0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47	
Tons per const. Period - Paving		0.01	0.09	0.01	0.00	0.00	0.00	29.40	0.00	0.00	29.52	
Total tons per construction project		0.05	0.65	0.06	0.03	0.01	0.00	203.63	0.00	0.00	204.56	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust		2		20.00		40.00					
Grading/Excavation - Exhaust		2		20.00		40.00					
Draining/Utilities/Subgrade						0.00					
Paving		2		20.00		40.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)		0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.01	0.03	0.13	0.01	0.00	0.00	138.57	0.00	0.00	139.93
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	3.87	0.00	0.00	3.91
Pounds per day - Grading/Excavation		0.01	0.03	0.13	0.01	0.00	0.00	138.00	0.00	0.00	139.36
Tons per const. Period - Grading/Excavation		0.00	0.01	0.03	0.00	0.00	0.00	28.77	0.00	0.00	29.05
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92
Tons per const. Period - Paving		0.00	0.00	0.01	0.00	0.00	0.00	5.72	0.00	0.00	5.78
Total tons per construction project		0.00	0.01	0.04	0.00	0.00	0.00	38.36	0.00	0.00	38.74

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.02	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.

Off-Road Equipment Emissions															
Grubbing/Land Clearing	Default	Mitigation Option	Default	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
	Number of Vehicles	Override of													Equipment Tier
	Override of Default Number of Vehicles	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)													
	<i>Program-estimate</i>				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment	<i>If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab</i>				ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
	Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Grubbing/Land Clearing		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
		Grubbing/Land Clearing		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day	
Override of Default Number of Vehicles	Program-estimate															
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Bore/Drill Rigs	0.25	1.94	3.03	0.09	0.08	0.01	849.21	0.27	0.01	858.39	
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	0.00	147.09	
1.00				Model Default Tier	Cranes	0.42	2.00	4.98	0.20	0.19	0.01	546.67	0.18	0.00	552.56	
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Excavators	0.24	3.37	2.34	0.11	0.10	0.01	515.99	0.17	0.00	521.55	
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Generator Sets	0.38	3.69	3.31	0.18	0.18	0.01	623.04	0.03	0.00	625.26	
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00				Model Default Tier	Pumps	0.40	3.75	3.35	0.19	0.19	0.01	623.04	0.04	0.00	625.32	
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2.00				Model Default Tier	Tractors/Loaders/Backhoes	0.40	4.58	4.02	0.25	0.23	0.01	607.88	0.20	0.01	614.43	
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment						ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Number of Vehicles		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grading/Excavation				pounds per day	2.27	19.94	22.15	1.07	1.01	0.04	3,912.16	0.90	0.03	3,944.61
		Grading/Excavation				tons per phase	0.47	4.16	4.62	0.22	0.21	0.01	815.49	0.19	0.01	822.25

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Default Equipment Tier	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate				pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
				Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab			ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade		tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default	Mitigation Option	Default		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)												
1.00			Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
			Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
			Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
			Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Rubber Tired Dozers	0.85	7.01	8.65	0.40	0.36	0.01	862.27	0.28	0.01	871.53
			Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Surfacing Equipment	0.18	1.56	2.09	0.08	0.07	0.01	632.36	0.20	0.01	639.18
			Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00			Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
			Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	2.30	21.31	20.51	1.01	0.96	0.04	3,461.80	0.68	0.03	3,487.38
		Paving		tons per phase	0.10	0.89	0.86	0.04	0.04	0.00	145.08	0.03	0.00	146.16
Total Emissions all Phases (tons per construction period) =>					0.57	5.05	5.48	0.26	0.25	0.01	960.57	0.22	0.01	968.41

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

Appendix A.3
Mitigated Roadway Construction
Model Runs

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Trunk Line Unit 1 - Phase 1														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.24	3.00	1.33	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,881.13	0.02	0.05	1,896.13
Grading/Excavation	2.41	26.64	17.58	1.19	1.09	0.10	0.98	0.96	0.02	0.06	5,798.97	0.93	0.08	5,846.27
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	1.94	23.27	11.89	0.75	0.75	0.00	0.64	0.64	0.00	0.05	5,255.97	0.70	0.07	5,295.19
Maximum (pounds/day)	2.64	29.64	18.90	1.46	1.26	0.20	1.07	1.02	0.04	0.08	7,680.10	0.95	0.13	7,742.40
Total (tons/construction project)	0.68	7.58	4.82	0.33	0.30	0.03	0.27	0.26	0.01	0.02	1,698.91	0.26	0.02	1,712.58

Notes:
 Project Start Year -> 2019
 Project Length (months) -> 29
 Total Project Area (acres) -> 2
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	3	0	280	900	40
Grading/Excavation	21	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	1	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Trunk Line Unit 1 - Phase 1														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.10	0.04	0.01	0.01	0.00	0.00	0.00	0.00	0.00	60.01	0.00	0.00	54.87
Grading/Excavation	0.58	6.37	4.20	0.28	0.26	0.02	0.23	0.23	0.00	0.01	1,387.40	0.22	0.02	1,268.91
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.09	1.11	0.57	0.04	0.04	0.00	0.03	0.03	0.00	0.00	251.50	0.03	0.00	229.86
Maximum (tons/phase)	0.58	6.37	4.20	0.28	0.26	0.02	0.23	0.23	0.00	0.01	1387.40	0.22	0.02	1,268.91
Total (tons/construction project)	0.68	7.58	4.82	0.33	0.30	0.03	0.27	0.26	0.01	0.02	1698.91	0.26	0.02	1,553.64

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name		Trunk Line Unit 1 - Phase 1		
Construction Start Year	2019	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	29.00	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	1.19	miles		
Total Project Area	2.03	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		21.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		2.60
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	1.30	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml).		
Will all off-road equipment be tier 4?	Tier 4 equipment for limited equipment types	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		
<p>If "Tier 4 equipment for limited equipment types" is selected, please provide tier information for each equipment type in cells from E183 to E379 below.</p>				

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	21.75	2.90	2/1/2019	1/1/2019
Grading/Excavation	0.00	11.60		3/31/2019
Drainage/Utilities/Sub-Grade		10.15		1/21/2021
Paving		4.35	2/1/2022	1/21/2021
Totals (Months)		29	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	2	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.23	0.91	0.06	0.02	0.01	971.13	0.00	0.03	980.70
Tons per const. Period - Grading/Excavation	0.01	0.05	0.22	0.02	0.01	0.00	232.34	0.00	0.01	234.63
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.05	0.22	0.02	0.01	0.00	232.34	0.00	0.01	234.63

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.91	0.06	0.02	0.01	973.34	0.00	0.03	982.93
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.03	0.00	0.00	0.00	31.05	0.00	0.00	31.36
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving	0.00	0.01	0.04	0.00	0.00	0.00	45.75	0.00	0.00	46.20
Total tons per construction project	0.00	0.02	0.07	0.01	0.00	0.00	76.79	0.00	0.00	77.55

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip	15										
One-way trips/day	2										
No. of employees: Grubbing/Land Clearing	30					60	900.00				
No. of employees: Grading/Excavation	30					60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving	30					60	900.00				
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.02	1.19	0.13	0.05	0.02	0.00	381.71	0.01	0.01	383.53	
Grading/Excavation (grams/mile)	0.02	1.12	0.12	0.05	0.02	0.00	375.35	0.01	0.00	377.04	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59	
Grubbing/Land Clearing (grams/trip)	1.08	2.86	0.23	0.00	0.00	0.00	85.97	0.01	0.01	89.17	
Grading/Excavation (grams/trip)	1.03	2.67	0.21	0.00	0.00	0.00	84.77	0.01	0.01	87.73	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.19	2.74	0.28	0.09	0.04	0.01	768.74	0.02	0.01	772.78	
Tons per const. Period - Grubbing/Land Clearing	0.01	0.09	0.01	0.00	0.00	0.00	24.52	0.00	0.00	24.65	
Pounds per day - Grading/Excavation	0.18	2.58	0.26	0.09	0.04	0.01	755.97	0.02	0.01	759.72	
Tons per const. Period - Grading/Excavation	0.04	0.62	0.06	0.02	0.01	0.00	180.86	0.00	0.00	181.76	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47	
Tons per const. Period - Paving	0.01	0.10	0.01	0.00	0.00	0.00	33.57	0.00	0.00	33.71	
Total tons per construction project	0.06	0.80	0.08	0.03	0.01	0.00	238.96	0.01	0.00	240.12	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	2			20.00		40.00					
Grading/Excavation - Exhaust	2			20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving	2			20.00		40.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,576.79	0.00	0.05	1,592.32	
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,573.20	0.00	0.05	1,588.70	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.01	0.03	0.13	0.01	0.00	0.00	139.05	0.00	0.00	140.42	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	4.44	0.00	0.00	4.48	
Pounds per day - Grading/Excavation	0.01	0.03	0.13	0.01	0.00	0.00	138.73	0.00	0.00	140.10	
Tons per const. Period - Grading/Excavation	0.00	0.01	0.03	0.00	0.00	0.00	33.19	0.00	0.00	33.52	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92	
Tons per const. Period - Paving	0.00	0.00	0.01	0.00	0.00	0.00	6.54	0.00	0.00	6.60	
Total tons per construction project	0.00	0.01	0.04	0.00	0.00	0.00	44.16	0.00	0.00	44.60	

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.02	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.
 Values in cells E220 through E224, E271 through E275, E322 through E326, and E373 through E377 are required when non-default Equipment are used and they are not all Tier 4

Off-Road Equipment Emissions																
Grubbing/Land Clearing		Default Number of Vehicles	Mitigation Option Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Current Equipment Tier	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	SOx pounds/day	CO2 pounds/day	CH4 pounds/day	N2O pounds/day	CO2e pounds/day	
Override of Default Number of Vehicles	Program-estimate															
			Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Tier 4	Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Tier 4	Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
			Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
User-Defined Off-road Equipment						ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Number of Vehicles		Equipment Tier				Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A					0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grubbing/Land Clearing				pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grubbing/Land Clearing				tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Current	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Bore/Drill Rigs	0.27	4.72	0.54	0.03	0.03	0.01	854.89	0.27	864.05
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	147.09
1.00		Tier 4	Tier 4	Cranes	0.17	3.01	0.35	0.02	0.02	0.01	551.74	0.18	557.64
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Excavators	0.26	3.37	2.60	0.13	0.12	0.01	520.67	0.17	526.23
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Generator Sets	0.42	3.71	3.59	0.21	0.21	0.01	623.04	0.04	625.35
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.44	3.77	3.65	0.22	0.22	0.01	623.04	0.04	625.41
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.44	4.62	4.43	0.29	0.26	0.01	613.44	0.20	619.98
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
Number of Vehicles	Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grading/Excavation	pounds per day	2.18	23.81	16.28	0.92	0.89	0.04	3,933.14	0.91	0.03	3,965.75	
	Grading/Excavation	tons per phase	0.52	5.70	3.89	0.22	0.21	0.01	941.00	0.22	0.01	948.81	

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier		Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Current											
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier										
1.00		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Rubber Tired Dozers	0.27	4.68	0.54	0.03	0.02	0.01	862.27	0.28	0.01	871.53
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Surfacing Equipment	0.20	3.49	0.40	0.02	0.02	0.01	632.36	0.20	0.01	639.18
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	1.74	20.91	10.71	0.58	0.57	0.04	3,461.80	0.68	0.03	3,487.38
		Paving		tons per phase	0.08	1.00	0.51	0.03	0.03	0.00	165.65	0.03	0.00	166.87
Total Emissions all Phases (tons per construction period) =>					0.60	6.70	4.41	0.25	0.24	0.01	1,106.65	0.25	0.01	1,115.68

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Trunk Line Unit 1 - Phase 2														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.26	3.31	1.39	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,914.93	0.03	0.05	1,930.59
Grading/Excavation	2.52	26.87	18.51	1.27	1.17	0.10	1.05	1.03	0.02	0.06	5,848.82	0.93	0.08	5,896.59
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	2.20	23.76	13.93	0.94	0.94	0.00	0.83	0.83	0.00	0.05	5,320.30	0.72	0.08	5,360.79
Maximum (pounds/day)	2.52	26.87	18.51	1.37	1.17	0.20	1.07	1.03	0.04	0.06	5,848.82	0.93	0.08	5,896.59
Total (tons/construction project)	0.38	4.02	2.69	0.19	0.17	0.01	0.15	0.15	0.00	0.01	898.89	0.14	0.01	906.16

Notes:
 Project Start Year -> 2018
 Project Length (months) -> 15
 Total Project Area (acres) -> 0
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	1	0	280	900	40
Grading/Excavation	11	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	1	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Trunk Line Unit 1 - Phase 2														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.02	0.00	0.00	29.28
Grading/Excavation	0.32	3.37	2.32	0.16	0.15	0.01	0.13	0.13	0.00	0.01	733.44	0.12	0.01	670.81
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.06	0.60	0.35	0.02	0.02	0.00	0.02	0.02	0.00	0.00	133.43	0.02	0.00	121.97
Maximum (tons/phase)	0.32	3.37	2.32	0.16	0.15	0.01	0.13	0.13	0.00	0.01	733.44	0.12	0.01	670.81
Total (tons/construction project)	0.38	4.02	2.69	0.19	0.17	0.01	0.15	0.15	0.00	0.01	898.89	0.14	0.01	822.06

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name	Trunk Line Unit 1 - Phase 2			
Construction Start Year	2018	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	15.20	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	0.27	miles		
Total Project Area	0.23	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		11.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		1.40
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	0.70	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml).		
Will all off-road equipment be tier 4?	Tier 4 equipment for limited equipment types	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		
<p style="color: red; font-size: small;">If "Tier 4 equipment for limited equipment types" is selected, please provide tier information for each equipment type in cells from E183 to E379 below.</p>				

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	11.40	1.52	9/1/2018	1/1/2018
Grading/Excavation	0.00	6.08	12/16/2018	2/17/2018
Drainage/Utilities/Sub-Grade		5.32		1/30/2019
Paving		2.28	3/25/2020	1/30/2019
Totals (Months)		15	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	1	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.22	0.91	0.06	0.02	0.01	973.70	0.00	0.03	983.30
Tons per const. Period - Grading/Excavation	0.01	0.03	0.11	0.01	0.00	0.00	122.10	0.00	0.00	123.31
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.03	0.11	0.01	0.00	0.00	122.10	0.00	0.00	123.31

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.93	0.06	0.02	0.01	981.66	0.00	0.03	991.33
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.02	0.00	0.00	0.00	16.41	0.00	0.00	16.58
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.90	0.06	0.02	0.01	969.96	0.00	0.03	979.52
Tons per const. Period - Paving	0.00	0.01	0.02	0.00	0.00	0.00	24.33	0.00	0.00	24.57
Total tons per construction project	0.00	0.01	0.04	0.00	0.00	0.00	40.74	0.00	0.00	41.14

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip	15										
One-way trips/day	2										
No. of employees: Grubbing/Land Clearing	30					60	900.00				
No. of employees: Grading/Excavation	30					60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving	30					60	900.00				
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.03	1.33	0.15	0.05	0.02	0.00	393.83	0.01	0.01	395.91	
Grading/Excavation (grams/mile)	0.02	1.20	0.13	0.05	0.02	0.00	382.23	0.01	0.01	384.06	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08	
Grubbing/Land Clearing (grams/trip)	1.17	3.21	0.26	0.00	0.00	0.00	87.83	0.02	0.01	91.49	
Grading/Excavation (grams/trip)	1.08	2.88	0.23	0.00	0.00	0.00	86.05	0.01	0.01	89.27	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.21	3.06	0.32	0.09	0.04	0.01	793.04	0.02	0.01	797.64	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.05	0.01	0.00	0.00	0.00	13.26	0.00	0.00	13.34	
Pounds per day - Grading/Excavation	0.19	2.75	0.29	0.09	0.04	0.01	769.79	0.02	0.01	773.85	
Tons per const. Period - Grading/Excavation	0.02	0.35	0.04	0.01	0.00	0.00	96.53	0.00	0.00	97.04	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.17	2.47	0.25	0.09	0.04	0.01	748.16	0.02	0.01	751.74	
Tons per const. Period - Paving	0.00	0.06	0.01	0.00	0.00	0.00	18.76	0.00	0.00	18.85	
Total tons per construction project	0.03	0.46	0.05	0.02	0.01	0.00	128.56	0.00	0.00	129.23	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	2			20.00		40.00					
Grading/Excavation - Exhaust	2			20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving	2			20.00		40.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93	
Grading/Excavation (grams/mile)	0.07	0.36	1.48	0.10	0.04	0.02	1,577.37	0.00	0.05	1,592.91	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.01	0.03	0.13	0.01	0.00	0.00	140.24	0.00	0.00	141.62	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.00	2.37	
Pounds per day - Grading/Excavation	0.01	0.03	0.13	0.01	0.00	0.00	139.10	0.00	0.00	140.47	
Tons per const. Period - Grading/Excavation	0.00	0.00	0.02	0.00	0.00	0.00	17.44	0.00	0.00	17.62	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.01	0.03	0.13	0.01	0.00	0.00	138.57	0.00	0.00	139.93	
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	3.48	0.00	0.00	3.51	
Total tons per construction project	0.00	0.01	0.02	0.00	0.00	0.00	23.26	0.00	0.00	23.49	

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.01	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Current	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Bore/Drill Rigs	0.27	4.72	0.54	0.03	0.03	0.01	865.01	0.27	874.16
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	147.09
1.00		Tier 4	Tier 4	Cranes	0.17	3.01	0.35	0.02	0.02	0.01	559.24	0.18	565.14
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Excavators	0.27	3.37	2.79	0.13	0.12	0.01	527.68	0.17	533.24
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Generator Sets	0.45	3.72	3.79	0.23	0.23	0.01	623.04	0.04	625.42
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.47	3.78	3.85	0.24	0.24	0.01	623.04	0.04	625.48
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.47	4.66	4.75	0.32	0.29	0.01	621.88	0.20	628.43
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
Number of Vehicles	Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grading/Excavation	pounds per day	2.28	23.86	17.18	1.01	0.97	0.04	3,966.23	0.91	0.03	3,998.97	
	Grading/Excavation	tons per phase	0.29	2.99	2.15	0.13	0.12	0.01	497.36	0.11	0.00	501.47	

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier		Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Current											
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier										
1.00		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.32	2.44	2.25	0.15	0.15	0.00	375.26	0.03	0.00	376.83
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.55	4.35	3.80	0.24	0.24	0.01	664.53	0.05	0.00	667.25
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.42	3.76	3.53	0.21	0.21	0.01	623.04	0.04	0.00	625.36
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Rubber Tired Dozers	0.27	4.68	0.54	0.03	0.02	0.01	863.07	0.28	0.01	872.34
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Surfacing Equipment	0.20	3.49	0.40	0.02	0.02	0.01	633.85	0.20	0.01	640.68
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.21	2.30	2.13	0.13	0.12	0.00	303.87	0.10	0.00	307.14
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	1.98	21.03	12.64	0.78	0.76	0.04	3,463.62	0.70	0.03	3,489.61
		Paving		tons per phase	0.05	0.53	0.32	0.02	0.02	0.00	86.87	0.02	0.00	87.52
Total Emissions all Phases (tons per construction period) =>					0.34	3.52	2.47	0.15	0.14	0.01	584.23	0.13	0.00	588.99

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> Trunk Line Unit 1 - Phase 3														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.26	3.31	1.39	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,914.93	0.03	0.05	1,930.59
Grading/Excavation	2.43	26.69	17.77	1.21	1.11	0.10	0.99	0.97	0.02	0.06	5,808.11	0.93	0.08	5,855.50
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	1.94	23.27	11.89	0.75	0.75	0.00	0.64	0.64	0.00	0.05	5,255.97	0.70	0.07	5,295.19
Maximum (pounds/day)	2.43	26.69	17.77	1.31	1.11	0.20	1.01	0.97	0.04	0.06	5,808.11	0.93	0.08	5,855.50
Total (tons/construction project)	0.78	8.65	5.53	0.38	0.35	0.03	0.31	0.30	0.01	0.02	1,936.96	0.29	0.03	1,952.57

Notes:
 Project Start Year -> 2018
 Project Length (months) -> 33
 Total Project Area (acres) -> 1
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	1	0	280	900	40
Grading/Excavation	11	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	1	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Trunk Line Unit 1 - Phase 3														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.12	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	69.51	0.00	0.00	63.58
Grading/Excavation	0.66	7.27	4.84	0.33	0.30	0.03	0.27	0.26	0.01	0.02	1,581.26	0.25	0.02	1,446.21
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.11	1.27	0.65	0.04	0.04	0.00	0.03	0.03	0.00	0.00	286.19	0.04	0.00	261.57
Maximum (tons/phase)	0.66	7.27	4.84	0.33	0.30	0.03	0.27	0.26	0.01	0.02	1,581.26	0.25	0.02	1,446.21
Total (tons/construction project)	0.78	8.65	5.53	0.38	0.35	0.03	0.31	0.30	0.01	0.02	1,936.96	0.29	0.03	1,771.36

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name	Trunk Line Unit 1 - Phase 3			
Construction Start Year	2018	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	33.00	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	0.62	miles		
Total Project Area	0.52	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		11.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		1.40
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	0.70	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml).		
Will all off-road equipment be tier 4?	Tier 4 equipment for limited equipment types	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		
<p style="color: red; font-size: small;">If "Tier 4 equipment for limited equipment types" is selected, please provide tier information for each equipment type in cells from E183 to E379 below.</p>				

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	24.75	3.30	9/1/2018	1/1/2018
Grading/Excavation	0.00	13.20	12/16/2018	4/12/2018
Drainage/Utilities/Sub-Grade		11.55		5/4/2020
Paving		4.95	1/1/2022	5/4/2020
Totals (Months)		33	Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.	

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing				0	0.00					
Miles/round trip: Grading/Excavation	20.00		14	1	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving				0	0.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation	0.04	0.22	0.91	0.06	0.02	0.01	971.76	0.00	0.03	981.33
Tons per const. Period - Grading/Excavation	0.01	0.06	0.25	0.02	0.01	0.00	264.56	0.00	0.01	267.17
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project	0.01	0.06	0.25	0.02	0.01	0.00	264.56	0.00	0.01	267.17

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions	User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input										
Miles/round trip: Grubbing/Land Clearing	20.00		14	1	280.00					
Miles/round trip: Grading/Excavation				0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade				0	0.00					
Miles/round trip: Paving	20.00		14	1	280.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing	0.04	0.22	0.93	0.06	0.02	0.01	981.66	0.00	0.03	991.33
Tons per const. Period - Grubbing/Land Clearing	0.00	0.01	0.03	0.00	0.00	0.00	35.63	0.00	0.00	35.99
Pounds per day - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving	0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving	0.00	0.01	0.05	0.00	0.00	0.00	52.05	0.00	0.00	52.57
Total tons per construction project	0.00	0.02	0.08	0.01	0.00	0.00	87.69	0.00	0.00	88.55

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input				Daily Trips	Daily VMT						
Miles/ one-way trip	15										
One-way trips/day	2										
No. of employees: Grubbing/Land Clearing	30			60	900.00						
No. of employees: Grading/Excavation	30			60	900.00						
No. of employees: Drainage/Utilities/Sub-Grade				0	0.00						
No. of employees: Paving	30			60	900.00						
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.03	1.33	0.15	0.05	0.02	0.00	393.83	0.01	0.01	395.91	
Grading/Excavation (grams/mile)	0.02	1.14	0.12	0.05	0.02	0.00	376.76	0.01	0.01	378.48	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59	
Grubbing/Land Clearing (grams/trip)	1.17	3.21	0.26	0.00	0.00	0.00	87.83	0.02	0.01	91.49	
Grading/Excavation (grams/trip)	1.04	2.71	0.22	0.00	0.00	0.00	85.03	0.01	0.01	88.04	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.21	3.06	0.32	0.09	0.04	0.01	793.04	0.02	0.01	797.64	
Tons per const. Period - Grubbing/Land Clearing	0.01	0.11	0.01	0.00	0.00	0.00	28.79	0.00	0.00	28.95	
Pounds per day - Grading/Excavation	0.18	2.61	0.27	0.09	0.04	0.01	758.79	0.02	0.01	762.61	
Tons per const. Period - Grading/Excavation	0.05	0.71	0.07	0.03	0.01	0.00	206.58	0.01	0.00	207.62	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47	
Tons per const. Period - Paving	0.01	0.11	0.01	0.01	0.00	0.00	38.20	0.00	0.00	38.36	
Total tons per construction project	0.07	0.94	0.10	0.03	0.01	0.00	273.57	0.01	0.00	274.93	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	2			20.00		40.00					
Grading/Excavation - Exhaust	2			20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving	2			20.00		40.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.07	0.36	1.51	0.10	0.04	0.02	1,590.26	0.00	0.05	1,605.93	
Grading/Excavation (grams/mile)	0.07	0.36	1.47	0.10	0.04	0.02	1,574.22	0.00	0.05	1,589.73	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.01	0.03	0.13	0.01	0.00	0.00	140.24	0.00	0.00	141.62	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	5.09	0.00	0.00	5.14	
Pounds per day - Grading/Excavation	0.01	0.03	0.13	0.01	0.00	0.00	138.82	0.00	0.00	140.19	
Tons per const. Period - Grading/Excavation	0.00	0.01	0.04	0.00	0.00	0.00	37.79	0.00	0.00	38.17	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92	
Tons per const. Period - Paving	0.00	0.00	0.01	0.00	0.00	0.00	7.44	0.00	0.00	7.51	
Total tons per construction project	0.00	0.01	0.05	0.00	0.00	0.00	50.32	0.00	0.00	50.82	

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.03	0.02	0.01
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.
 Values in cells E220 through E224, E271 through E275, E322 through E326, and E373 through E377 are required when non-default Equipment are used and they are not all Tier 4

Off-Road Equipment Emissions															
Grubbing/Land Clearing		Default Number of Vehicles	Mitigation Option		Current	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles		Program-estimate	Override of Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)		Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
			Model Default Tier	Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Model Default Tier	Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment		If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab				ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier		Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grubbing/Land Clearing			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grubbing/Land Clearing			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Current	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Bore/Drill Rigs	0.27	4.72	0.54	0.03	0.03	0.01	856.61	0.27	865.77
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	147.09
1.00		Tier 4	Tier 4	Cranes	0.17	3.01	0.35	0.02	0.02	0.01	553.01	0.18	558.91
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Excavators	0.26	3.37	2.63	0.13	0.12	0.01	521.85	0.17	527.41
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Generator Sets	0.42	3.71	3.63	0.21	0.21	0.01	623.04	0.04	625.37
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.45	3.77	3.69	0.22	0.22	0.01	623.04	0.04	625.42
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.45	4.63	4.50	0.29	0.27	0.01	614.86	0.20	621.40
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
Number of Vehicles	Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grading/Excavation	pounds per day	2.20	23.82	16.46	0.94	0.90	0.04	3,938.74	0.91	0.03	3,971.37	
	Grading/Excavation	tons per phase	0.60	6.48	4.48	0.26	0.25	0.01	1,072.32	0.25	0.01	1,081.21	

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier		Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Current											
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier										
				Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
1.00		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Rubber Tired Dozers	0.27	4.68	0.54	0.03	0.02	0.01	862.27	0.28	0.01	871.53
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Surfacing Equipment	0.20	3.49	0.40	0.02	0.02	0.01	632.36	0.20	0.01	639.18
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	1.74	20.91	10.71	0.58	0.57	0.04	3,461.80	0.68	0.03	3,487.38
		Paving		tons per phase	0.09	1.14	0.58	0.03	0.03	0.00	188.49	0.04	0.00	189.89
Total Emissions all Phases (tons per construction period) =>					0.69	7.62	5.06	0.29	0.28	0.01	1,260.82	0.28	0.01	1,271.09

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

The maximum pounds per day in row 11 is summed over overlapping phases, but the maximum tons per phase in row 34 is not summed over overlapping phases.

Road Construction Emissions Model, Version 8.1.0

Daily Emission Estimates for -> <i>Trunk Line Unit 2</i>														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.22	2.73	1.28	0.27	0.17	0.10	0.09	0.07	0.02	0.02	1,856.68	0.02	0.05	1,871.18
Grading/Excavation	2.25	26.35	16.29	1.08	0.98	0.10	0.87	0.85	0.02	0.06	5,751.69	0.92	0.08	5,798.39
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Paving	1.94	23.27	11.89	0.75	0.75	0.00	0.64	0.64	0.00	0.05	5,255.97	0.70	0.07	5,295.19
Maximum (pounds/day)	2.25	26.35	16.29	1.18	0.98	0.20	0.89	0.85	0.04	0.06	5,751.69	0.92	0.08	5,798.39
Total (tons/construction project)	0.56	6.54	3.93	0.26	0.24	0.02	0.21	0.21	0.00	0.02	1,471.09	0.22	0.02	1,482.88

Notes:
 Project Start Year -> 2020
 Project Length (months) -> 25
 Total Project Area (acres) -> 1
 Maximum Area Disturbed/Day (acres) -> 0
 Water Truck Used? -> Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	4	0	280	900	40
Grading/Excavation	34	0	280	0	900	40
Drainage/Utilities/Sub-Grade	0	0	0	0	0	0
Paving	0	3	0	280	900	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> <i>Trunk Line Unit 2</i>														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.01	0.08	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	51.88	0.00	0.00	47.43
Grading/Excavation	0.47	5.49	3.40	0.23	0.20	0.02	0.18	0.18	0.00	0.01	1,198.94	0.19	0.02	1,096.50
Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.08	0.98	0.50	0.03	0.03	0.00	0.03	0.03	0.00	0.00	220.28	0.03	0.00	201.33
Maximum (tons/phase)	0.47	5.49	3.40	0.23	0.20	0.02	0.18	0.18	0.00	0.01	1198.94	0.19	0.02	1,096.50
Total (tons/construction project)	0.56	6.54	3.93	0.26	0.24	0.02	0.21	0.21	0.00	0.02	1471.09	0.22	0.02	1,345.26

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Road Construction Emissions Model Data Entry Worksheet		Version 8.1.0		
<p>Note: Required data input sections have a yellow background. Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background. The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types. Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.</p>		<p>To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.</p>		
Input Type				
Project Name	Trunk Line Unit 2			
Construction Start Year	2020	Enter a Year between 2014 and 2025 (inclusive)		
Project Type	4	1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation than widening an existing roadway 2) Road Widening : Project to add a new lane to an existing roadway 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment than a new roadway, such as a crane 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction		
Project Construction Time	25.40	months		
Working Days per Month	22.00	days (assume 22 if unknown)		
Predominant Soil/Site Type: Enter 1, 2, or 3 <small>(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)</small>	1	1) Sand Gravel : Use for quaternary deposits (Delta/West County) 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta) 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)		
Project Length	1.57	miles		
Total Project Area	1.33	acres		
Maximum Area Disturbed/Day	0.01	acres		
Water Trucks Used?	1	1. Yes 2. No		
Material Hauling Quantity Input				
Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing			
	Grading/Excavation	20.00		34.00
	Drainage/Utilities/Sub-Grade			
	Paving			
Asphalt	Grubbing/Land Clearing	20.00		4.20
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving	20.00	2.90	
Mitigation Options				
On-road Fleet Emissions Mitigation		Select "2010 and Newer On-road Vehicles Fleet" option when the on-road heavy-duty truck fleet for the project will be limited to vehicles of model year 2010 or newer		
Off-road Equipment Emissions Mitigation	Tier 4 Equipment	Select "20% NOx and 45% Exhaust PM reduction" option if the project will be required to use a lower emitting off-road construction fleet. The SMAQMD Construction Mitigation Calculator can be used to confirm compliance with this mitigation measure (http://www.airquality.org/ceqa/mitigation.shtml).		
Will all off-road equipment be tier 4?	Tier 4 equipment for limited equipment types	Select "Tier 4 Equipment" option if some or all off-road equipment used for the project meets CARB Tier 4 Standard		
<p style="color: red; font-size: small;">If "Tier 4 equipment for limited equipment types" is selected, please provide tier information for each equipment type in cells from E183 to E379 below.</p>				

Please note that the soil type instructions provided in cells E18 to E20 are specific to Sacramento County. Maps available from the California Geologic Survey (see weblink below) can be used to determine soil type outside Sacramento County.

http://www.conservation.ca.gov/cgs/information/geologic_mapping/Pages/googlemaps.aspx#regionalseries

The remaining sections of this sheet contain areas that require modification when 'Other Project Type' is selected.

Note: The program's estimates of construction period phase length can be overridden in cells D50 through D53, and F50 through F53.

Construction Periods	User Override of Construction Months	Program Calculated Months	User Override of Phase Starting Date	Program Default Phase Starting Date
Grubbing/Land Clearing	18.95	2.54	1/1/2020	1/1/2020
Grading/Excavation	0.00	10.16	4/15/2020	3/19/2020
Drainage/Utilities/Sub-Grade		8.89		10/17/2021
Paving		3.81	8/1/2022	10/17/2021
Totals (Months)	25			

Note: You have entered a non-default starting date. Please provide starting date for all phases, or default values for other phases will be used.

Please note: You have entered a different number of months than the project length shown in cell D16.

Note: Soil Hauling emission default values can be overridden in cells D61 through D64, and F61 through F64.

Soil Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input											
Miles/round trip: Grubbing/Land Clearing					0	0.00					
Miles/round trip: Grading/Excavation		20.00		14	2	280.00					
Miles/round trip: Drainage/Utilities/Sub-Grade					0	0.00					
Miles/round trip: Paving					0	0.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)		0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Hauling Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grubbing/Land Clearing		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Grading/Excavation		0.04	0.23	0.89	0.06	0.02	0.01	965.98	0.00	0.03	975.50
Tons per const. Period - Grading/Excavation		0.01	0.05	0.19	0.01	0.01	0.00	201.36	0.00	0.01	203.34
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Paving		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total tons per construction project		0.01	0.05	0.19	0.01	0.01	0.00	201.36	0.00	0.01	203.34

Note: Asphalt Hauling emission default values can be overridden in cells D87 through D90, and F87 through F90.

Asphalt Hauling Emissions		User Override of Miles/Round Trip	Program Estimate of Miles/Round Trip	User Override of Truck Round Trips/Day	Default Values Round Trips/Day	Calculated Daily VMT					
User Input											
Miles/round trip: Grubbing/Land Clearing		20.00		14	1	280.00					
Miles/round trip: Grading/Excavation					0	0.00					
Miles/round trip: Drainage/Utilities/Sub-Grade					0	0.00					
Miles/round trip: Paving		20.00		14	1	280.00					
Emission Rates		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Grubbing/Land Clearing (grams/mile)		0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79
Grading/Excavation (grams/mile)		0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28
Draining/Utilities/Sub-Grade (grams/mile)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving (grams/mile)		0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97
Emissions		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Pounds per day - Grubbing/Land Clearing		0.04	0.23	0.90	0.06	0.02	0.01	969.96	0.00	0.03	979.52
Tons per const. Period - Grubbing/Land Clearing		0.00	0.01	0.03	0.00	0.00	0.00	27.10	0.00	0.00	27.37
Pounds per day - Grading/Excavation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grading/Excavation		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Drainage/Utilities/Sub-Grade		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day - Paving		0.04	0.23	0.86	0.06	0.02	0.01	956.01	0.00	0.03	965.43
Tons per const. Period - Paving		0.00	0.01	0.04	0.00	0.00	0.00	40.07	0.00	0.00	40.46
Total tons per construction project		0.00	0.02	0.06	0.00	0.00	0.00	67.17	0.00	0.00	67.83

Note: Worker commute default values can be overridden in cells D113 through D118.

Worker Commute Emissions		User Override of Worker Commute Default Values		Default Values		Calculated	Calculated				
User Input						Daily Trips	Daily VMT				
Miles/ one-way trip	15										
One-way trips/day	2										
No. of employees: Grubbing/Land Clearing	30					60	900.00				
No. of employees: Grading/Excavation	30					60	900.00				
No. of employees: Drainage/Utilities/Sub-Grade						0	0.00				
No. of employees: Paving	30					60	900.00				
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.02	1.08	0.11	0.05	0.02	0.00	371.46	0.01	0.00	373.08	
Grading/Excavation (grams/mile)	0.02	1.03	0.11	0.05	0.02	0.00	365.19	0.01	0.00	366.71	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.02	0.92	0.09	0.05	0.02	0.00	348.29	0.01	0.00	349.59	
Grubbing/Land Clearing (grams/trip)	1.00	2.55	0.20	0.00	0.00	0.00	84.03	0.01	0.01	86.84	
Grading/Excavation (grams/trip)	0.96	2.40	0.19	0.00	0.00	0.00	82.85	0.01	0.01	85.47	
Draining/Utilities/Sub-Grade (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/trip)	0.87	2.06	0.16	0.00	0.00	0.00	79.59	0.01	0.01	81.77	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.17	2.47	0.25	0.09	0.04	0.01	748.16	0.02	0.01	751.74	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.07	0.01	0.00	0.00	0.00	20.90	0.00	0.00	21.00	
Pounds per day - Grading/Excavation	0.17	2.36	0.24	0.09	0.04	0.01	735.55	0.02	0.01	738.92	
Tons per const. Period - Grading/Excavation	0.03	0.49	0.05	0.02	0.01	0.00	153.33	0.00	0.00	154.03	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.15	2.09	0.20	0.09	0.04	0.01	701.59	0.02	0.01	704.47	
Tons per const. Period - Paving	0.01	0.09	0.01	0.00	0.00	0.00	29.40	0.00	0.00	29.52	
Total tons per construction project	0.05	0.65	0.06	0.03	0.01	0.00	203.63	0.00	0.00	204.56	

Note: Water Truck default values can be overridden in cells D145 through D148, and F145 through F148.

Water Truck Emissions		User Override of Default # Water Trucks	Program Estimate of Number of Water Trucks	User Override of Truck Miles Traveled/Vehicle/Day	Default Values Miles Traveled/Vehicle/Day	Calculated Daily VMT					
Grubbing/Land Clearing - Exhaust	2			20.00		40.00					
Grading/Excavation - Exhaust	2			20.00		40.00					
Drainage/Utilities/Subgrade						0.00					
Paving	2			20.00		40.00					
Emission Rates	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Grubbing/Land Clearing (grams/mile)	0.07	0.37	1.46	0.10	0.04	0.01	1,571.31	0.00	0.05	1,586.79	
Grading/Excavation (grams/mile)	0.07	0.37	1.44	0.10	0.04	0.01	1,564.86	0.00	0.05	1,580.28	
Draining/Utilities/Sub-Grade (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Paving (grams/mile)	0.07	0.37	1.39	0.10	0.04	0.01	1,548.71	0.00	0.05	1,563.97	
Emissions	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
Pounds per day - Grubbing/Land Clearing	0.01	0.03	0.13	0.01	0.00	0.00	138.57	0.00	0.00	139.93	
Tons per const. Period - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00	3.87	0.00	0.00	3.91	
Pounds per day - Grading/Excavation	0.01	0.03	0.13	0.01	0.00	0.00	138.00	0.00	0.00	139.36	
Tons per const. Period - Grading/Excavation	0.00	0.01	0.03	0.00	0.00	0.00	28.77	0.00	0.00	29.05	
Pounds per day - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pounds per day - Paving	0.01	0.03	0.12	0.01	0.00	0.00	136.57	0.00	0.00	137.92	
Tons per const. Period - Paving	0.00	0.00	0.01	0.00	0.00	0.00	5.72	0.00	0.00	5.78	
Total tons per construction project	0.00	0.01	0.04	0.00	0.00	0.00	38.36	0.00	0.00	38.74	

Note: Fugitive dust default values can be overridden in cells D171 through D173.

Fugitive Dust	User Override of Max Acreage Disturbed/Day	Default Maximum Acreage/Day	PM10 pounds/day	PM10 tons/per period	PM2.5 pounds/day	PM2.5 tons/per period
Fugitive Dust - Grubbing/Land Clearing	0.01		0.10	0.00	0.02	0.00
Fugitive Dust - Grading/Excavation	0.01		0.10	0.02	0.02	0.00
Fugitive Dust - Drainage/Utilities/Subgrade	0.01		0.10	0.00	0.02	0.00

Values in cells D183 through D216, D234 through D267, D285 through D318, and D336 through D369 are required when 'Other Project Type' is selected.
 Values in cells E220 through E224, E271 through E275, E322 through E326, and E373 through E377 are required when non-default Equipment are used and they are not all Tier 4

Off-Road Equipment Emissions														
Grubbing/Land Clearing	Default	Mitigation Option		Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Current											
Override of Default Number of Vehicles	Program-estimate	Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Tier 4	Tier 4	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Tier 4	Tier 4	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier			Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A				0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grubbing/Land Clearing			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Grubbing/Land Clearing			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Grading/Excavation		Default Number of Vehicles	Mitigation Option Override of Current	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Bore/Drill Rigs	0.27	4.72	0.54	0.03	0.03	0.01	849.21	0.27	858.39
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.18	0.60	1.12	0.04	0.04	0.00	146.34	0.02	147.09
1.00		Tier 4	Tier 4	Cranes	0.17	3.01	0.35	0.02	0.02	0.01	546.67	0.18	552.56
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Excavators	0.24	3.37	2.34	0.11	0.10	0.01	515.99	0.17	521.55
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Generator Sets	0.38	3.69	3.31	0.18	0.18	0.01	623.04	0.03	625.26
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.40	3.75	3.35	0.19	0.19	0.01	623.04	0.04	625.32
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.40	4.58	4.02	0.25	0.23	0.01	607.88	0.20	614.43
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment				If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab									
Number of Vehicles	Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Grading/Excavation	pounds per day	2.04	23.73	15.03	0.82	0.78	0.04	3,912.16	0.90	0.03	3,944.61	
	Grading/Excavation	tons per phase	0.43	4.95	3.13	0.17	0.16	0.01	815.49	0.19	0.01	822.25	

Drainage/Utilities/Subgrade		Default Number of Vehicles	Mitigation Option Override of Current		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pumps	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment					ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
Number of Vehicles		Equipment Tier		Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00		N/A			0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			pounds per day	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage/Utilities/Sub-Grade			tons per phase	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Paving	Default		Mitigation Option		ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	Number of Vehicles	Override of	Current											
	Override of Default Number of Vehicles	Program-estimate	Default Equipment Tier (applicable only when "Tier 4 Mitigation" Option Selected)	Equipment Tier										
1.00		Model Default Tier	Model Default Tier	Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Air Compressors	0.27	2.42	1.88	0.11	0.11	0.00	375.26	0.02	0.00	376.72
		Model Default Tier	Model Default Tier	Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Cranes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Crushing/Proc. Equipment	0.48	4.33	3.23	0.18	0.18	0.01	664.53	0.04	0.00	667.10
		Model Default Tier	Model Default Tier	Excavators	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Graders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pavers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Pumps	0.35	3.73	2.97	0.16	0.16	0.01	623.04	0.03	0.00	625.23
		Model Default Tier	Model Default Tier	Rollers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Rubber Tired Dozers	0.27	4.68	0.54	0.03	0.02	0.01	862.27	0.28	0.01	871.53
		Model Default Tier	Model Default Tier	Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Tier 4	Tier 4	Surfacing Equipment	0.20	3.49	0.40	0.02	0.02	0.01	632.36	0.20	0.01	639.18
		Model Default Tier	Model Default Tier	Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00		Model Default Tier	Model Default Tier	Tractors/Loaders/Backhoes	0.17	2.26	1.69	0.09	0.08	0.00	304.34	0.10	0.00	307.62
		Model Default Tier	Model Default Tier	Trenchers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Model Default Tier	Model Default Tier	Welders	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User-Defined Off-road Equipment														
If non-default vehicles are used, please provide information in 'Non-default Off-road Equipment' tab														
	Number of Vehicles		Equipment Tier	Type	ROG	CO	NOx	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		N/A		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving		pounds per day	1.74	20.91	10.71	0.58	0.57	0.04	3,461.80	0.68	0.03	3,487.38
		Paving		tons per phase	0.07	0.88	0.45	0.02	0.02	0.00	145.08	0.03	0.00	146.16
Total Emissions all Phases (tons per construction period) =>					0.50	5.82	3.58	0.19	0.19	0.01	960.57	0.22	0.01	968.41

Equipment default values for horsepower and hours/day can be overridden in cells D391 through D424 and F391 through F424.

Equipment	User Override of Horsepower	Default Values Horsepower	User Override of Hours/day	Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		78		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		9		8
Concrete/Industrial Saws	20.00	81		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		85		8
Excavators		163		8
Forklifts		89		8
Generator Sets		84		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		13		8
Pumps		84		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		6		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		46		8

END OF DATA ENTRY SHEET

Appendix A.4
Regulator Station Unmitigated
CalEEMod Outputs

Trunk Line Regulator Room - Los Angeles-South Coast County, Annual

Trunk Line Regulator Room
Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - See construction assumptions
- Construction Phase - See construction assumptions
- Off-road Equipment - See construction equipment estimate
- Off-road Equipment - See construction equipment estimate
- Trips and VMT - See construction assumptions
- Grading -
- Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	28.00	2,064.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9521	499.9521	0.0954	0.0000	502.3377
Maximum	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9521	499.9521	0.0954	0.0000	502.3377

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9516	499.9516	0.0954	0.0000	502.3372
Maximum	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9516	499.9516	0.0954	0.0000	502.3372

	ROG	NOx	CO	SO2	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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2025	3-31-2025	0.6180	0.6180
2	4-1-2025	6-30-2025	0.6237	0.6237
3	7-1-2025	9-30-2025	0.4953	0.4953
		Highest	0.6237	0.6237

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29
Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1077	0.9503	1.2540	2.6500e-003		0.0386	0.0386		0.0367	0.0367	0.0000	229.4101	229.4101	0.0516	0.0000	230.6998
Total	0.1077	0.9503	1.2540	2.6500e-003	1.0000e-005	0.0386	0.0386	0.0000	0.0367	0.0367	0.0000	229.4101	229.4101	0.0516	0.0000	230.6998

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	5.4100e-003	0.1703	0.0608	7.4000e-004	0.0177	3.0000e-004	0.0180	4.8700e-003	2.9000e-004	5.1600e-003	0.0000	73.7494	73.7494	4.9800e-003	0.0000	73.8740
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	5.2900e-003	3.5300e-003	0.0429	1.5000e-004	0.0170	1.3000e-004	0.0171	4.5100e-003	1.2000e-004	4.6200e-003	0.0000	13.2547	13.2547	3.1000e-004	0.0000	13.2624
Total	0.0107	0.1739	0.1037	8.9000e-004	0.0347	4.3000e-004	0.0351	9.3800e-003	4.1000e-004	9.7800e-003	0.0000	87.0042	87.0042	5.2900e-003	0.0000	87.1364

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1077	0.9503	1.2540	2.6500e-003		0.0386	0.0386		0.0367	0.0367	0.0000	229.4098	229.4098	0.0516	0.0000	230.6995
Total	0.1077	0.9503	1.2540	2.6500e-003	0.0000	0.0386	0.0386	0.0000	0.0367	0.0367	0.0000	229.4098	229.4098	0.0516	0.0000	230.6995

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	5.4100e-003	0.1703	0.0608	7.4000e-004	0.0177	3.0000e-004	0.0180	4.8700e-003	2.9000e-004	5.1600e-003	0.0000	73.7494	73.7494	4.9800e-003	0.0000	73.8740
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	5.2900e-003	3.5300e-003	0.0429	1.5000e-004	0.0170	1.3000e-004	0.0171	4.5100e-003	1.2000e-004	4.6200e-003	0.0000	13.2547	13.2547	3.1000e-004	0.0000	13.2624
Total	0.0107	0.1739	0.1037	8.9000e-004	0.0347	4.3000e-004	0.0351	9.3800e-003	4.1000e-004	9.7800e-003	0.0000	87.0042	87.0042	5.2900e-003	0.0000	87.1364

3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1054	0.8811	1.0480	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9749	169.9749	0.0382	0.0000	170.9307
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1054	0.8811	1.0480	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9749	169.9749	0.0382	0.0000	170.9307

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708
Total	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708

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	0.1054	0.8811	1.0479	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9747	169.9747	0.0382	0.0000	170.9305
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1054	0.8811	1.0479	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9747	169.9747	0.0382	0.0000	170.9305

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	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708
Total	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708

Trunk Line Regulator Room - Los Angeles-South Coast County, Summer

**Trunk Line Regulator Room
Los Angeles-South Coast County, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See construction assumptions

Construction Phase - See construction assumptions

Off-road Equipment - See construction equipment estimate

Off-road Equipment - See construction equipment estimate

Trips and VMT - See construction assumptions

Grading -

Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15

tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	28.00	2,064.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

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					
2025	1.8338	17.3563	21.0793	0.0551	0.5483	0.6043	1.1525	0.1479	0.5751	0.7230	0.0000	5,426.797	5,426.7971	0.9713	0.0000	5,451.080
												1				0

Maximum	1.8338	17.3563	21.0793	0.0551	0.5483	0.6043	1.1525	0.1479	0.5751	0.7230	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800
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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					
2025	1.8338	17.3563	21.0793	0.0551	0.5482	0.6043	1.1524	0.1479	0.5751	0.7230	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800
Maximum	1.8338	17.3563	21.0793	0.0551	0.5482	0.6043	1.1524	0.1479	0.5751	0.7230	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800

	ROG	NOx	CO	SO2	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	0.02	0.00	0.01	0.01	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	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29

Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000

Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688		3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	1.9000e-004	0.5976	0.5978	3.0000e-005	0.5688	0.5689		3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0831	2.5748	0.9262	0.0116	0.2798	4.6600e-003	0.2845	0.0767	4.4500e-003	0.0812		1,269.5318	1,269.5318	0.0842		1,271.6367
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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.1644	2.6231	1.6373	0.0140	0.5481	6.6300e-003	0.5547	0.1479	6.2600e-003	0.1541		1,506.1562	1,506.1562	0.0897		1,508.3984

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					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	8.0000e-005	0.5976	0.5977	1.0000e-005	0.5688	0.5688	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0831	2.5748	0.9262	0.0116	0.2798	4.6600e-003	0.2845	0.0767	4.4500e-003	0.0812		1,269.5318	1,269.5318	0.0842		1,271.6367
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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617

Total	0.1644	2.6231	1.6373	0.0140	0.5481	6.6300e-003	0.5547	0.1479	6.2600e-003	0.1541		1,506.1562	1,506.1562	0.0897		1,508.3984
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3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617

Trunk Line Regulator Room - Los Angeles-South Coast County, Winter

**Trunk Line Regulator Room
Los Angeles-South Coast County, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See construction assumptions

Construction Phase - See construction assumptions

Off-road Equipment - See construction equipment estimate

Off-road Equipment - See construction equipment estimate

Trips and VMT - See construction assumptions

Grading -

Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	28.00	2,064.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29
Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688		3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	1.9000e-004	0.5976	0.5978	3.0000e-005	0.5688	0.5689		3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0851	2.5937	0.9637	0.0114	0.2798	4.7600e-003	0.2846	0.0767	4.5600e-003	0.0813		1,247.7540	1,247.7540	0.0865		1,249.9153
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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.1766	2.6470	1.6101	0.0137	0.5481	6.7300e-003	0.5548	0.1479	6.3700e-003	0.1542		1,470.5740	1,470.5740	0.0916		1,472.8638

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					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	8.0000e-005	0.5976	0.5977	1.0000e-005	0.5688	0.5688	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0851	2.5937	0.9637	0.0114	0.2798	4.7600e-003	0.2846	0.0767	4.5600e-003	0.0813		1,247.7540	1,247.7540	0.0865		1,249.9153
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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.1766	2.6470	1.6101	0.0137	0.5481	6.7300e-003	0.5548	0.1479	6.3700e-003	0.1542		1,470.5740	1,470.5740	0.0916		1,472.8638

3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486

Appendix A.5
Regulator Station Mitigated
CalEEMod Outputs

Trunk Line Regulator Room - Los Angeles-South Coast County, Annual

**Trunk Line Regulator Room
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - See construction assumptions
- Construction Phase - See construction assumptions
- Off-road Equipment - See construction equipment estimate
- Off-road Equipment - See construction equipment estimate
- Trips and VMT - See construction assumptions
- Grading -
- Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	231.00	226.00

tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	28.00	2,064.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9521	499.9521	0.0954	0.0000	502.3377
Maximum	0.2292	2.0089	2.4495	5.6400e-003	0.0521	0.0770	0.1291	0.0140	0.0730	0.0870	0.0000	499.9521	499.9521	0.0954	0.0000	502.3377

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1659	1.2828	2.6407	5.6400e-003	0.0521	0.0456	0.0977	0.0140	0.0444	0.0584	0.0000	499.9516	499.9516	0.0954	0.0000	502.3372
Maximum	0.1659	1.2828	2.6407	5.6400e-003	0.0521	0.0456	0.0977	0.0140	0.0444	0.0584	0.0000	499.9516	499.9516	0.0954	0.0000	502.3372

	ROG	NOx	CO	SO2	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	27.61	36.14	-7.80	0.00	0.00	40.78	24.33	0.00	39.20	32.90	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2025	3-31-2025	0.6180	0.4769
2	4-1-2025	6-30-2025	0.6237	0.4811
3	7-1-2025	9-30-2025	0.4953	0.2433
		Highest	0.6237	0.4811

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29
Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1077	0.9503	1.2540	2.6500e-003		0.0386	0.0386		0.0367	0.0367	0.0000	229.4101	229.4101	0.0516	0.0000	230.6998
Total	0.1077	0.9503	1.2540	2.6500e-003	1.0000e-005	0.0386	0.0386	0.0000	0.0367	0.0367	0.0000	229.4101	229.4101	0.0516	0.0000	230.6998

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	5.4100e-003	0.1703	0.0608	7.4000e-004	0.0177	3.0000e-004	0.0180	4.8700e-003	2.9000e-004	5.1600e-003	0.0000	73.7494	73.7494	4.9800e-003	0.0000	73.8740
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	5.2900e-003	3.5300e-003	0.0429	1.5000e-004	0.0170	1.3000e-004	0.0171	4.5100e-003	1.2000e-004	4.6200e-003	0.0000	13.2547	13.2547	3.1000e-004	0.0000	13.2624
Total	0.0107	0.1739	0.1037	8.9000e-004	0.0347	4.3000e-004	0.0351	9.3800e-003	4.1000e-004	9.7800e-003	0.0000	87.0042	87.0042	5.2900e-003	0.0000	87.1364

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0869	0.6881	1.4438	2.6500e-003		0.0279	0.0279		0.0270	0.0270	0.0000	229.4098	229.4098	0.0516	0.0000	230.6995
Total	0.0869	0.6881	1.4438	2.6500e-003	0.0000	0.0279	0.0279	0.0000	0.0270	0.0270	0.0000	229.4098	229.4098	0.0516	0.0000	230.6995

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	5.4100e-003	0.1703	0.0608	7.4000e-004	0.0177	3.0000e-004	0.0180	4.8700e-003	2.9000e-004	5.1600e-003	0.0000	73.7494	73.7494	4.9800e-003	0.0000	73.8740
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	5.2900e-003	3.5300e-003	0.0429	1.5000e-004	0.0170	1.3000e-004	0.0171	4.5100e-003	1.2000e-004	4.6200e-003	0.0000	13.2547	13.2547	3.1000e-004	0.0000	13.2624
Total	0.0107	0.1739	0.1037	8.9000e-004	0.0347	4.3000e-004	0.0351	9.3800e-003	4.1000e-004	9.7800e-003	0.0000	87.0042	87.0042	5.2900e-003	0.0000	87.1364

3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1054	0.8811	1.0480	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9749	169.9749	0.0382	0.0000	170.9307
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1054	0.8811	1.0480	1.9500e-003		0.0379	0.0379		0.0358	0.0358	0.0000	169.9749	169.9749	0.0382	0.0000	170.9307

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708
Total	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708

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	0.0629	0.4173	1.0493	1.9500e-003		0.0171	0.0171		0.0168	0.0168	0.0000	169.9747	169.9747	0.0382	0.0000	170.9305
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0629	0.4173	1.0493	1.9500e-003		0.0171	0.0171		0.0168	0.0168	0.0000	169.9747	169.9747	0.0382	0.0000	170.9305

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	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708
Total	5.4100e-003	3.6200e-003	0.0439	1.5000e-004	0.0174	1.3000e-004	0.0175	4.6100e-003	1.2000e-004	4.7300e-003	0.0000	13.5630	13.5630	3.1000e-004	0.0000	13.5708

Trunk Line Regulator Room - Los Angeles-South Coast County, Summer

Trunk Line Regulator Room - Mitigated
Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - See construction assumptions
- Construction Phase - See construction assumptions
- Off-road Equipment - See construction equipment estimate
- Off-road Equipment - See construction equipment estimate
- Trips and VMT - See construction assumptions
- Grading -
- Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	231.00	226.00

tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	28.00	2,064.00
tblTripsAndVMT	WorkerTripNumber	20.00	24.00
tblTripsAndVMT	WorkerTripNumber	13.00	24.00

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					
2025	1.8338	17.3563	21.0793	0.0551	0.5483	0.6043	1.1525	0.1479	0.5751	0.7230	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800
Maximum	1.8338	17.3563	21.0793	0.0551	0.5483	0.6043	1.1525	0.1479	0.5751	0.7230	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800

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					
2025	1.5110	13.2910	24.0219	0.0551	0.5482	0.4392	0.9874	0.1479	0.4252	0.5730	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800
Maximum	1.5110	13.2910	24.0219	0.0551	0.5482	0.4392	0.9874	0.1479	0.4252	0.5730	0.0000	5,426.7971	5,426.7971	0.9713	0.0000	5,451.0800

	ROG	NOx	CO	SO2	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	17.60	23.42	-13.96	0.00	0.02	27.31	14.33	0.01	26.07	20.74	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	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29
Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688		3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	1.9000e-004	0.5976	0.5978	3.0000e-005	0.5688	0.5689		3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0831	2.5748	0.9262	0.0116	0.2798	4.6600e-003	0.2845	0.0767	4.4500e-003	0.0812		1,269.5318	1,269.5318	0.0842		1,271.6367
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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.1644	2.6231	1.6373	0.0140	0.5481	6.6300e-003	0.5547	0.1479	6.2600e-003	0.1541		1,506.1562	1,506.1562	0.0897		1,508.3984

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					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.3467	10.6680	22.3846	0.0411		0.4326	0.4326		0.4189	0.4189	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.3467	10.6680	22.3846	0.0411	8.0000e-005	0.4326	0.4327	1.0000e-005	0.4189	0.4189	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0831	2.5748	0.9262	0.0116	0.2798	4.6600e-003	0.2845	0.0767	4.4500e-003	0.0812		1,269.5318	1,269.5318	0.0842		1,271.6367
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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.1644	2.6231	1.6373	0.0140	0.5481	6.6300e-003	0.5547	0.1479	6.2600e-003	0.1541		1,506.1562	1,506.1562	0.0897		1,508.3984

3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617

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	0.9533	6.3220	15.8987	0.0296		0.2596	0.2596		0.2552	0.2552	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9533	6.3220	15.8987	0.0296		0.2596	0.2596		0.2552	0.2552	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617
Total	0.0813	0.0482	0.7111	2.3700e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		236.6244	236.6244	5.4900e-003		236.7617

Trunk Line Regulator Room - Los Angeles-South Coast County, Winter

Trunk Line Regulator Room - Mitigated
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	6.00	1000sqft	0.01	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	8			Operational Year	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MW hr)	1227.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics -
- Land Use - See construction assumptions
- Construction Phase - See construction assumptions
- Off-road Equipment - See construction equipment estimate
- Off-road Equipment - See construction equipment estimate
- Trips and VMT - See construction assumptions
- Grading -
- Construction Off-road Equipment Mitigation - See construction equipment estimate

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	2.00	129.00
tblConstructionPhase	NumDays	5.00	132.00
tblGrading	MaterialExported	0.00	222.00
tblLandUse	LotAcreage	0.14	0.01
tblOffRoadEquipment	HorsePower	221.00	206.00
tblOffRoadEquipment	HorsePower	81.00	20.00
tblOffRoadEquipment	HorsePower	231.00	226.00
tblOffRoadEquipment	HorsePower	158.00	163.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	HorsePower	247.00	255.00
tblOffRoadEquipment	HorsePower	263.00	254.00
tblOffRoadEquipment	HorsePower	97.00	98.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2025	6/30/2025	5	129	
2	Paving	Paving	7/1/2025	12/31/2025	5	132	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	206	0.50
Grading	Concrete/Industrial Saws	1	8.00	20	0.73
Grading	Cranes	1	8.00	226	0.29
Grading	Excavators	1	8.00	163	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Pumps	1	8.00	84	0.74
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	98	0.37
Paving	Air Compressors	1	8.00	78	0.48
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crushing/Proc. Equipment	1	8.00	85	0.78
Paving	Pavers	0	7.00	130	0.42
Paving	Rollers	0	7.00	80	0.38
Paving	Rubber Tired Dozers	1	8.00	255	0.40
Paving	Surfacing Equipment	1	8.00	254	0.30
Paving	Tractors/Loaders/Backhoes	1	8.00	98	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	8	24.00	0.00	2,064.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	24.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	1.6695	14.7333	19.4420	0.0411		0.5976	0.5976		0.5688	0.5688		3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.6695	14.7333	19.4420	0.0411	1.9000e-004	0.5976	0.5978	3.0000e-005	0.5688	0.5689		3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0851	2.5937	0.9637	0.0114	0.2798	4.7600e-003	0.2846	0.0767	4.5600e-003	0.0813		1,247.7540	1,247.7540	0.0865		1,249.9153
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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.1766	2.6470	1.6101	0.0137	0.5481	6.7300e-003	0.5548	0.1479	6.3700e-003	0.1542		1,470.5740	1,470.5740	0.0916		1,472.8638

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					8.0000e-005	0.0000	8.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	1.3467	10.6680	22.3846	0.0411		0.4326	0.4326		0.4189	0.4189	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816
Total	1.3467	10.6680	22.3846	0.0411	8.0000e-005	0.4326	0.4327	1.0000e-005	0.4189	0.4189	0.0000	3,920.6409	3,920.6409	0.8816		3,942.6816

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	0.0851	2.5937	0.9637	0.0114	0.2798	4.7600e-003	0.2846	0.0767	4.5600e-003	0.0813		1,247.7540	1,247.7540	0.0865		1,249.9153
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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.1766	2.6470	1.6101	0.0137	0.5481	6.7300e-003	0.5548	0.1479	6.3700e-003	0.1542		1,470.5740	1,470.5740	0.0916		1,472.8638

3.3 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.5965	13.3498	15.8780	0.0296		0.5739	0.5739		0.5424	0.5424		2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486

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	0.9533	6.3220	15.8987	0.0296		0.2596	0.2596		0.2552	0.2552	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9533	6.3220	15.8987	0.0296		0.2596	0.2596		0.2552	0.2552	0.0000	2,838.8670	2,838.8670	0.6386		2,854.8314

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	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486
Total	0.0915	0.0533	0.6463	2.2300e-003	0.2683	1.9700e-003	0.2702	0.0711	1.8100e-003	0.0730		222.8200	222.8200	5.1400e-003		222.9486

Appendix A.6

de Minimis Calculations

de minimis Calculations

2018

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Unit 1 - Phase 1	-	-	-	-	-
Unit 1 - Phase 2	0.11	1.16	0.80	0.06	0.05
Unit 1 - Phase 3	0.10	1.15	0.76	0.06	0.04
Unit 2	-	-	-	-	-
Total	0.21	2.30	1.56	0.12	0.09
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(9.79)	(97.70)	(8.44)	(99.88)	(65.72)

2019

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Unit 1 - Phase 1	0.31	3.53	2.25	0.17	0.13
Unit 1 - Phase 2	0.33	3.51	2.42	0.18	0.14
Unit 1 - Phase 3	0.32	3.48	2.32	0.17	0.13
Unit 2	-	-	-	-	-
Total	0.96	10.52	6.98	0.52	0.40
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(9.04)	(89.48)	(3.02)	(99.48)	(50.62)

2020

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Unit 1 - Phase 1	0.35	3.88	2.48	0.19	0.14
Unit 1 - Phase 2	0.33	3.52	2.42	0.18	0.14
Unit 1 - Phase 3	0.32	3.50	2.33	0.17	0.13
Unit 2	0.29	3.45	2.13	0.15	0.12
Total	1.29	14.35	9.36	0.70	0.53
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(8.71)	(85.65)	(0.64)	(99.30)	(43.77)

2021

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Unit 1 - Phase 1	0.34	3.87	2.47	0.19	0.14
Unit 1 - Phase 2	-	-	-	-	-
Unit 1 - Phase 3	0.32	3.48	2.32	0.17	0.13
Unit 2	0.29	3.44	2.13	0.15	0.12
Total	0.96	10.79	6.91	0.52	0.39
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(9.04)	(89.21)	(3.09)	(99.48)	(50.44)

2022

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Unit 1 - Phase 1	0.14	1.60	1.02	0.08	0.06
Unit 1 - Phase 2	0.00	-	-	-	-
Unit 1 - Phase 3	0.13	1.44	0.96	0.07	0.05
Unit 2	0.27	3.15	1.95	0.14	0.11
Total	0.54	6.19	3.93	0.29	0.22
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(9.46)	(93.81)	(6.07)	(99.71)	(58.83)

2025

Phase	Emissions (Tons/Year)				
	VOC	CO	NOx	PM10	PM2.5
Regulator Station	0.24	2.75	2.27	0.15	0.09
Total	0.24	2.75	2.27	0.15	0.09
<i>de minimis</i> Thresholds	10	100	10	100	70
Amount Over/(Under)	(9.76)	(97.25)	(7.73)	(99.85)	(64.50)

de minimis Calculations

Phase	Tons/year VOC					
	2018	2019	2020	2021	2022	2025
Unit 1 - Phase 1	-	0.31	0.35	0.34	0.14	-
Unit 1 - Phase 2	0.11	0.33	0.33			-
Unit 1 - Phase 3	0.10	0.32	0.32	0.32	0.13	-
Unit 2 - Phase 1	-	-	0.29	0.29	0.27	-
Regulator Station	-	-	-	-	-	0.24
Total	0.21	0.96	1.29	0.96	0.54	0.24

Phase	lbs/day
Unit 1 - Phase 1	2.64
Unit 1 - Phase 2	2.52
Unit 1 - Phase 3	2.43
Unit 2 - Phase 1	2.25
Regulator Station	1.85

Ton	lbs
1	2,000

Year	Phase	Schedule		Days/year
2018	Unit 1 - Phase 1	-	-	-
	Unit 1 - Phase 2	9/1/2018	12/31/2018	86
	Unit 1 - Phase 3	9/1/2018	12/31/2018	86
	Unit 2 - Phase 1	-	-	-
2019	Unit 1 - Phase 1	2/1/2019	12/31/2019	238
	Unit 1 - Phase 2	1/1/2019	12/31/2019	261
	Unit 1 - Phase 3	1/1/2019	12/31/2019	261
	Unit 2 - Phase 1	-	-	-
2020	Unit 1 - Phase 1	1/1/2020	12/31/2020	262
	Unit 1 - Phase 2	1/1/2020	12/31/2020	262
	Unit 1 - Phase 3	1/1/2020	12/31/2020	262
	Unit 2 - Phase 1	1/1/2020	12/31/2020	262
2021	Unit 1 - Phase 1	1/1/2021	12/31/2021	261
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2021	12/31/2021	261
	Unit 2 - Phase 1	1/1/2021	12/31/2021	261
2022	Unit 1 - Phase 1	1/1/2022	6/1/2022	108
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2022	6/1/2022	108
	Unit 2 - Phase 1	1/1/2022	12/1/2022	239
2025	Regulator Station	1/1/2025	12/31/2025	261

de minimis Calculations

Phase	Tons/year NOx					
	2018	2019	2020	2021	2022	2025
Unit 1 - Phase 1	-	2.25	2.48	2.47	1.02	-
Unit 1 - Phase 2	0.80	2.42	2.42	-	-	-
Unit 1 - Phase 3	0.76	2.32	2.33	2.32	0.96	-
Unit 2 - Phase 1	-	-	2.13	2.13	1.95	-
Regulator Station	-	-	-	-	-	2.27
Total	1.56	6.98	9.36	6.91	3.93	2.27

Phase	lbs/day
Unit 1 - Phase 1	18.9
Unit 1 - Phase 2	18.51
Unit 1 - Phase 3	17.77
Unit 2 - Phase 1	16.29
Regulator Station	17.38

Ton	lbs
1	2,000

Year	Phase	Schedule		Days/year
2018	Unit 1 - Phase 1	-	-	-
	Unit 1 - Phase 2	9/1/2018	12/31/2018	86
	Unit 1 - Phase 3	9/1/2018	12/31/2018	86
	Unit 2 - Phase 1	-	-	-
2019	Unit 1 - Phase 1	2/1/2019	12/31/2019	238
	Unit 1 - Phase 2	1/1/2019	12/31/2019	261
	Unit 1 - Phase 3	1/1/2019	12/31/2019	261
	Unit 2 - Phase 1	-	-	-
2020	Unit 1 - Phase 1	1/1/2020	12/31/2020	262
	Unit 1 - Phase 2	1/1/2020	12/31/2020	262
	Unit 1 - Phase 3	1/1/2020	12/31/2020	262
	Unit 2 - Phase 1	1/1/2020	12/31/2020	262
2021	Unit 1 - Phase 1	1/1/2021	12/31/2021	261
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2021	12/31/2021	261
	Unit 2 - Phase 1	1/1/2021	12/31/2021	261
2022	Unit 1 - Phase 1	1/1/2022	6/1/2022	108
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2022	6/1/2022	108
	Unit 2 - Phase 1	1/1/2022	12/1/2022	239
2025	Regulator Station	1/1/2025	12/31/2025	261

de minimis Calculations

Phase	Tons/year CO					
	2018	2019	2020	2021	2022	2025
Unit 1 - Phase 1	-	3.53	3.88	3.87	1.60	-
Unit 1 - Phase 2	1.16	3.51	3.52	-	-	-
Unit 1 - Phase 3	1.15	3.48	3.50	3.48	1.44	-
Unit 2 - Phase 1	-	-	3.45	3.44	3.15	-
Regulator Station	-	-	-	-	-	2.75
Total	2.30	10.52	14.35	10.79	6.19	2.75

Phase	lbs/day
Unit 1 - Phase 1	29.64
Unit 1 - Phase 2	26.87
Unit 1 - Phase 3	26.69
Unit 2 - Phase 1	26.35
Regulator Station	21.08

Ton	lbs
1	2,000

Year	Phase	Schedule		Days/year
2018	Unit 1 - Phase 1	-	-	-
	Unit 1 - Phase 2	9/1/2018	12/31/2018	86
	Unit 1 - Phase 3	9/1/2018	12/31/2018	86
	Unit 2 - Phase 1	-	-	-
2019	Unit 1 - Phase 1	2/1/2019	12/31/2019	238
	Unit 1 - Phase 2	1/1/2019	12/31/2019	261
	Unit 1 - Phase 3	1/1/2019	12/31/2019	261
	Unit 2 - Phase 1	-	-	-
2020	Unit 1 - Phase 1	1/1/2020	12/31/2020	262
	Unit 1 - Phase 2	1/1/2020	12/31/2020	262
	Unit 1 - Phase 3	1/1/2020	12/31/2020	262
	Unit 2 - Phase 1	1/1/2020	12/31/2020	262
2021	Unit 1 - Phase 1	1/1/2021	12/31/2021	261
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2021	12/31/2021	261
	Unit 2 - Phase 1	1/1/2021	12/31/2021	261
2022	Unit 1 - Phase 1	1/1/2022	6/1/2022	108
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2022	6/1/2022	108
	Unit 2 - Phase 1	1/1/2022	12/1/2022	239
2025	Regulator Station	1/1/2025	12/31/2025	261

de minimis Calculations

Phase	Tons/year PM10					
	2018	2019	2020	2021	2022	2025
Unit 1 - Phase 1	-	0.17	0.19	0.19	0.08	-
Unit 1 - Phase 2	0.06	0.18	0.18	-	-	-
Unit 1 - Phase 3	0.06	0.17	0.17	0.17	0.07	-
Unit 2 - Phase 1	-	-	0.15	0.15	0.14	-
Regulator Station	-	-	-	-	-	0.15
Total	0.12	0.52	0.70	0.52	0.29	0.15

Phase	lbs/day
Unit 1 - Phase 1	1.46
Unit 1 - Phase 2	1.37
Unit 1 - Phase 3	1.31
Unit 2 - Phase 1	1.18
Regulator Station	1.15

Ton	lbs
1	2,000

Year	Phase	Schedule		Days/year
2018	Unit 1 - Phase 1	-	-	-
	Unit 1 - Phase 2	9/1/2018	12/31/2018	86
	Unit 1 - Phase 3	9/1/2018	12/31/2018	86
	Unit 2 - Phase 1	-	-	-
2019	Unit 1 - Phase 1	2/1/2019	12/31/2019	238
	Unit 1 - Phase 2	1/1/2019	12/31/2019	261
	Unit 1 - Phase 3	1/1/2019	12/31/2019	261
	Unit 2 - Phase 1	-	-	-
2020	Unit 1 - Phase 1	1/1/2020	12/31/2020	262
	Unit 1 - Phase 2	1/1/2020	12/31/2020	262
	Unit 1 - Phase 3	1/1/2020	12/31/2020	262
	Unit 2 - Phase 1	1/1/2020	12/31/2020	262
2021	Unit 1 - Phase 1	1/1/2021	12/31/2021	261
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2021	12/31/2021	261
	Unit 2 - Phase 1	1/1/2021	12/31/2021	261
2022	Unit 1 - Phase 1	1/1/2022	6/1/2022	108
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2022	6/1/2022	108
	Unit 2 - Phase 1	1/1/2022	12/1/2022	239
2025	Regulator Station	1/1/2025	12/31/2025	261

de minimis Calculations

Phase	Tons/year PM2.5					
	2018	2019	2020	2021	2022	2025
Unit 1 - Phase 1	-	0.13	0.14	0.14	0.06	-
Unit 1 - Phase 2	0.05	0.14	0.14	-	-	-
Unit 1 - Phase 3	0.04	0.13	0.13	0.13	0.05	-
Unit 2 - Phase 1	-	-	0.12	0.12	0.11	-
Regulator Station	-	-	-	-	-	0.09
Total	0.09	0.40	0.53	0.39	0.22	0.09

Phase	lbs/day
Unit 1 - Phase 1	1.07
Unit 1 - Phase 2	1.07
Unit 1 - Phase 3	1.01
Unit 2 - Phase 1	0.89
Regulator Station	0.72

Ton	lbs
1	2,000

Year	Phase	Schedule		Days/year
2018	Unit 1 - Phase 1	-	-	-
	Unit 1 - Phase 2	9/1/2018	12/31/2018	86
	Unit 1 - Phase 3	9/1/2018	12/31/2018	86
	Unit 2 - Phase 1	-	-	-
2019	Unit 1 - Phase 1	2/1/2019	12/31/2019	238
	Unit 1 - Phase 2	1/1/2019	12/31/2019	261
	Unit 1 - Phase 3	1/1/2019	12/31/2019	261
	Unit 2 - Phase 1	-	-	-
2020	Unit 1 - Phase 1	1/1/2020	12/31/2020	262
	Unit 1 - Phase 2	1/1/2020	12/31/2020	262
	Unit 1 - Phase 3	1/1/2020	12/31/2020	262
	Unit 2 - Phase 1	1/1/2020	12/31/2020	262
2021	Unit 1 - Phase 1	1/1/2021	12/31/2021	261
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2021	12/31/2021	261
	Unit 2 - Phase 1	1/1/2021	12/31/2021	261
2022	Unit 1 - Phase 1	1/1/2022	6/1/2022	108
	Unit 1 - Phase 2	-	-	-
	Unit 1 - Phase 3	1/1/2022	6/1/2022	108
	Unit 2 - Phase 1	1/1/2022	12/1/2022	239
2025	Regulator Station	1/1/2025	12/31/2025	261