Appendix B: Air Quality/Greenhouse Gases Technical Memorandum



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Memorandum

То:	Buzz Berger, PE Associate Vice President HDR
	3003 Oak Road, Ste. 500
	Walnut Creek, CA 95747
From:	Cory Matsui, Kelsey Hartfelder, ICF
Date:	August 2, 2023
Re:	Air Quality and Greenhouse Gas Analysis of the Roseville Third Track Passenger Train Layover Facility

Introduction

In 2015, the Capitol Corridor Joint Powers Authority (CCJPA) certified a final EIR and approved the Sacramento to Roseville Third Track Passenger Rail project (CCJPA 2015). Since then, CCJPA has determined that changes to the Roseville Passenger Train Layover design and location need to be made. The purpose of this memorandum is to address the potential air quality and greenhouse gas impacts associated with changes to the Sacramento-Roseville Third Track: Roseville Passenger Train Layover (Project). The Project is required to comply with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA); thus, this memorandum provides support for both the CEQA and NEPA environmental review.

Project Description

The Project proposes the development of a layover facility, occupying approximately 9.5 acres along the Union Pacific Railroad (UPRR) right-of-way between Yosemite Street and Galleria Boulevard and serving as an endpoint where passenger trains begin and end their runs in Roseville, California. The layover facility would also be used for storage and light maintenance of up to four full passenger train sets at any one time. Typical activities at the layover facility will include storing passenger trains, cleaning the interiors of trains, emptying of sanitary retention tanks, and light maintenance. Locomotives may also receive fuel from trucks. The facility would also include an 8,000 square foot office, including a break room, a training room, administrative spaces, a small storage area, rest rooms, a locker room, and 22 employee parking spaces to serve as a point for train crews to start of finish their daily tours of duty.

CEQA Results

Criteria Air Pollutant and Greenhouse Gas Analysis Methodology

Construction Assumptions

Construction of the Project would generate emissions of reactive organic gases (ROG), nitrogen oxide (NO_X), carbon monoxide (CO), particulate matter no more than 10 microns in diameter (PM₁₀), and particulate matter no more than 2.5 microns in diameter (PM_{2.5}), resulting in short-term impacts on ambient air quality in the air quality study area (i.e., the Sacramento Valley Air Basin [SVAB]). Construction would also generate emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) that would result in long-term impacts on atmospheric greenhouse gas (GHG) concentrations. Emissions would be released in the form of exhaust from off-road equipment; exhaust from employee vehicles, vendor trucks, and haul trucks; exhaust from ballast-hauling locomotives; fugitive dust from site grading, earthmoving, and demolition; suspended road dust from vehicle travel; and off-gassing from architectural coatings and paving.

Short-term emissions generated by Project construction were calculated using CalEEMod Version 2022.1, which uses vehicle emission factors from CARB's EMFAC2021 (CAPCOA 2022). Modeling was based on Project-specific information provided by HDR and the Capitol Corridor Joint Powers Authority (CCJPA) where available, including demolition quantities, earthwork estimates, facility sizes and characteristics, expected construction phase durations, equipment inventory, number of truck trips, the area to be graded or paved, and construction electricity consumption. Default values from CalEEMod were also used, which are generated by the model based on a Project's location and land use type. Emission factors for locomotives from the United States Environmental Protection Agency (U.S. EPA) and the 2021 Port of Long Beach (POLB) Air Emissions Inventory were entered into CalEEMod to estimate emissions associated with ballast-hauling locomotives (U.S. EPA 2009; POLB 2021).

Construction of the Project was assumed to occur over approximately one year. Based on the construction schedule provided by HDR and CCJPA, construction of the Project may overlap with the final year of construction of the original Sacramento to Roseville Third Main Track project. Accordingly, the Project's construction emissions were summed with those associated with the final year of construction for the original Sacramento to Roseville Third Main Track project, as evaluated and disclosed in the 2015 Sacramento to Roseville Third Main Track Environmental Impact Report (CCJPA 2015).

Attachment A includes construction modeling outputs and detailed assumptions.

Operations Assumptions

Operation of the Project would generate emissions of ROG, NO_X , CO, PM_{10} , and $PM_{2.5}$ that could result in long-term impacts on ambient air quality. Project operation would also generate emissions of CO_2 , CH_4 , and N_2O that could result in long-term impacts on atmospheric GHG concentrations. Emissions from employee vehicles traveling to and from the facility, energy consumption, water use, waste generation, operation of the emergency generator, the reapplication of architectural coatings, the

use of consumer products, and the use of landscaping equipment were calculated using CalEEMod Version 2022.1. Modeling was based on Project-specific information where available, including the Project's estimated outdoor water use rate, solid waste generation rate, and information regarding the proposed emergency generator; and default values from CalEEMod, which are generated by the model based on a project's location and land use type.

The Project would not induce additional motor vehicles to travel to the Roseville transit station or increase passenger train activities, including locomotive usage or required maintenance, but it would result in incremental emissions in addition to the emissions identified in the 2015 EIR. The Project would increase running time for locomotives traveling the additional distance to the new location of the layover facility. Additionally, the Project would result in emissions from locomotive idling at a new location, because the layover facility was previously located in Old Town Roseville. It should be noted that the emissions from locomotive idling would not increase beyond those presented in the 2015 EIR, because the number of trains and idling time would remain the same. What is changing is the location of the idling emissions. Locomotive running and idling emissions were estimated based on EPA's locomotive emissions standards for traction engines and California Air Resources Board's (CARB's) offroad diesel engine standards for head-end-power engines.

The Project's operational emissions were summed with those from the 2015 EIR to evaluate the potential for Project implementation to result in new or more significant impacts than those evaluated and disclosed for the original Sacramento to Roseville Third Main Track project.

Attachment A includes detailed operational modeling outputs.

CEQA Air Quality Analysis Results

This section describes the estimated air quality impacts from construction and operation of the Project as required under CEQA.

Impact AQ-1: Conflict with or obstruction of implementation of the applicable air quality plan

Consistent with the analysis provided in the 2015 EIR, the Project's potential to "conflict with or obstruct implementation" is defined as circumstances under which the Project would exceed the growth assumptions utilized by the Sacramento Area Council of Governments (SACOG) in preparing the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) or worsen existing air quality violations (SACOG 2019).

The Project would not increase passenger train frequency beyond the additional service evaluated in the 2015 EIR, and would thus not increase maintenance activities, or induce additional motor vehicle travel to the Roseville transit station. The Project would only relocate the layover facility, resulting in minor additional locomotive travel of approximately two minutes per train. Accordingly, the Project would not increase the overall growth pressure in the communities served by CCJPA, and the Project would be consistent with recent growth projections for the region and would not conflict with the current air quality plans. Moreover, SACOG's MTP/SCS includes strategies to reduce single-occupancy vehicle usage and to increase alternative transportation (SACOG 2019). Implementation of the Sacramento to Roseville Third Main Track Project, including the revised location of the layover facility, would support efforts to expand passenger rail service and accommodate increased

ridership, as the proposed layover facility would be used for maintenance of passenger trains. As a result, operation of the Project would contribute to SACOG's goals to improve long-term air quality, reduce on road vehicle miles traveled (VMT), and increase alternative transportation.

As described below, while short-term emissions would be generated during construction, these would be mitigated to below air district significance thresholds (see Impact AQ-2). Likewise, long-term operation of the Project would result in a net reduction of all criteria pollutant emissions except NO_X under design year (2035) conditions, and the Project's operational NO_X emissions would not exceed the applicable PCAPCD threshold (Impact AQ-2). The Project would thus not worsen existing air quality violations,

Impact AQ-2: Potential to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard.

Construction

Table 1 summarizes the results of the emissions modeling, which are compared to PCAPCD's criteria pollutant numeric thresholds for construction emissions (PCAPCD 2017a). The emissions shown in Table 1 are the maximum daily emissions that would occur, consistent with PCAPCD guidance. Maximum daily emissions are conservative, because they capture the emissions that would occur on the worst-case day of construction, whereas the use of average daily thresholds in other air districts results in lower emissions values that are averaged across the construction period.

It should be noted that the emissions presented in Table 1 are also conservative, because the 2015 EIR included emissions for construction of a new 4,600-square-foot maintenance facility, which would likely be replaced by the proposed layover facility. However, it is not feasible to adjust the emissions disclosed in the 2015 EIR to subtract the contribution from the original maintenance facility construction. As such, the Project's emissions are summed with emissions in the third year of construction associated with the original Sacramento to Roseville Third Main Track project. As a result, there may be some unavoidable double counting of emissions between the original maintenance facility and the proposed layover facility. Although double counting may occur, summing emissions in this way is a conservative approach and allows for a comprehensive evaluation of the Sacramento to Roseville Third Main Track project with the proposed layover facility.

Table 1. Criteria Pollutant Emissions from Project Construction (maximum pounds per day)

Year/Condition	ROG	NOx	PM_{10}					
Unmitigated Construction								
2015 EIR			_					
Year 1	2	24	12					
Year 2	9	96	50					
Year 3	24	30	19					
Roseville Layover	<u>44</u>	<u>593</u>	<u>50</u>					
Net Unmitigated	<u>68</u>	<u>623</u>	<u>69</u>					

(2015 EIR Year 3 + Roseville Layover)			
PCAPCD Threshold	82	82	82
Exceed?	No	Yes	No
Mitigated Construction			
2015 EIR			
Year 1	2	19	12
Year 2	9	77	50
Year 3	24	24	19
Roseville Layover	<u>16</u>	<u>129</u>	<u>24</u>
Net Mitigated (2015 EIR Year 3 + Roseville Layover)	<u>40</u>	<u>153</u>	<u>43</u>
PCAPCD Threshold	82	82	82
Exceed?	No	<u>Yes</u>	No

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions and exceedances from 2015 EIR resulting from the Proposed Project; PCAPCD = Placer County Air Pollution Control District; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter.

As shown in Table 1, the Project's unmitigated construction activities would generate NO_X emissions that exceed the applicable PCAPCD numeric threshold and ROG and PM_{10} emissions that are below the applicable PCAPCD numeric thresholds. The primary reason for the exceedance of the emissions threshold is from the use of locomotives to haul ballast from quarries to the Project site. The ballast-hauling locomotives are high-horsepower and thus emissions-intensive equipment, but the use of the locomotives would occur for only 4 days. On these days, the maximum daily emissions scenario would occur, and the threshold would be exceeded; however, for the majority of days during construction the emissions of NO_X would be substantially lower. The average emissions during construction would thus result in lower emissions than those presented in Table 1, and the presentation of maximum daily emissions is conservative.

Mitigation Measure AQ-1 would be implemented to reduce the Project's construction NO_X emissions below PCAPCD thresholds. This would be accomplished by using Tier 4 final construction equipment, using Tier 4 locomotives for ballast hauling, and, for emissions that are still above the threshold after use of Tier 4 equipment, offsets would be purchased in coordination with PCAPCD. The use of offsets would only apply to days when the NOx threshold is exceeded. As indicated above, the number of days that emissions would be exceeded would be limited to the days that locomotive ballast hauling would occur (i.e., 3-4 days). As such, construction emissions would not be expected to contribute to a significant level of air pollution that would degrade regional air quality within the SFBAAB with the implementation of Mitigation Measure AQ-1.

Mitigation Measure AQ-1: Reduce construction emissions to below PCAPCD NO_X thresholds.

CCJPA shall ensure that construction-related emissions do not exceed PCAPCD's construction NO_X threshold of 82 pounds per day. Potential measures include but are not limited to those listed below.

- Require the usage of EPA-rated Tier 4 Final rated construction equipment. In general, replacing Tier 2 equipment with Tier 4 Final equipment can result in a 94% reduction in NO_x emissions.
- Require the usage of EPA-rated Tier 4 locomotives for ballast hauling between quarries and the Project site.
- ullet Work with PCAPCD to purchase NO_X credits to offset remaining NO_X construction emissions exceeding PCAPCD thresholds.

Operations

Table 2 summarizes the Project's estimated operational criteria pollutant emissions, which are compared to PCAPCD's operational criteria pollutant numeric thresholds (PCAPCD 2017a). The emissions shown in Table 2 represent the entire Sacramento to Roseville Third Main Track Project with the revised location of the layover facility. The only difference in emissions between what is shown in Table 2 and what is shown in the 2015 EIR is the additional run-time of approximately two minutes that would occur from the revised layover facility location. Idling emissions would remain the same as in the 2015 EIR, but the idling would occur in a different location. For this reason, idling emissions are included in the analysis of health risks below (see Impact AQ-3).

Table 2 shows emissions that would occur in both PCAPCD and the Sacramento Metropolitan Air Quality Management District (SMAQMD). However, because the only change in the overall project is within the PCAPCD, emissions in SMAQMD are not affected and thus are the same as what is shown in the 2015 EIR. Emissions are shown for various sources in Table 2, including those that are not affected by the Project (e.g., public on-road vehicles and buses), because the location of the layover facility does not affect ridership (and thus on-road vehicle travel) or bus service. Consistent with the 2015 EIR, emissions are presented for two scenarios (existing conditions in 2013 and design conditions in 2035); however, the impact determination is made with respect to design conditions only, because comparing to existing conditions would overestimate emissions. Page 3.2-7 through 3.2-8 of the draft 2015 EIR provides the rationale for determining impacts with respect to design conditions.

For the reasons noted above for construction, the emissions presented in Table 2 are conservative because the 2015 EIR included emissions for the operation of a new maintenance facility, which the proposed layover facility would likely replace. It is not feasible to adjust the emissions disclosed in the 2015 EIR to subtract the contribution from operation of the original maintenance facility. As such, the Project's emissions are conservatively summed with all emissions expected to result from the original Sacramento to Roseville Third Main Track project. Although some double counting may occur, summing emissions in this way is a conservative approach and allows for a comprehensive

evaluation of the Sacramento to Roseville Third Main Track project with the proposed layover facility.

Table 2. Net Daily Operational Emissions in SMAQMD and PCAPCD (pounds/day)

			SMA	QMD					PCA	PCD		
Source	ROG	NOx	СО	PM10	PM2.5	SO ₂	ROG	NOx	СО	PM10	PM2.5	SO ₂
Existing Conditions (2	013)											
Train operation	6.3	115.4	28	4.1	4	0.1	2.7	<u>51.4</u>	<u>11.1</u>	<u>1.8</u>	<u>1.7</u>	<u>0.1</u>
Public vehicles	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses— Thruway	<-0.1	-0.2	-0.4	<-0.1	<-0.1	<-0.1	<-0.1	-0.2	-0.4	<-0.1	<-0.1	<-0.1
Public Buses— Roseville	-	-	-	-	-	-	<0.1	0.1	0.2	<0.1	<0.1	<0.1
O&M at Roseville Station	-	-	-	-	-	-	0.1	0.1	0.3	<0.1	<0.1	<0.1
Total Net Change	-0.3	93.7	-53.2	-2.3	1.9	-0.1	-3.8	29.9	<u>-69.6</u>	<u>-4.6</u>	<u>-0.4</u>	<u>-0.1</u>
CEQA Threshold	64	64	-	-	_	-	55	55	-	82	-	-
Exceed?	No	Yes	N/A	N/A	N/A	N/A	No	No	N/A	No	N/A	N/A
Design Conditions (20	35)											
Train operation	0.9	21.4	27.4	0.3	0.3	0.1	<u>0.9</u>	<u>21.9</u>	<u>28.1</u>	0.3	0.3	<u>0.1</u>
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses— Thruway	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1	<-0.1
Public Buses— Roseville	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
O&M at Roseville Station	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
O&M at Roseville Layover Facility	-	-	-	-	-	-	<u>0.1</u>	<u><0.1</u>	<u>0.3</u>	<u>0.1</u>	<u><0.1</u>	<u><0.1</u>
Total Net Change	-1.8	15.5	-1.7	-5.9	-1.6	-0.1	<u>-1.6</u>	16.1	<u>-0.6</u>	<u>-5.8</u>	<u>-1.6</u>	<u>-0.1</u>
CEQA Threshold	64	64	-	-	-	-	55	55	-	82	-	-
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A	No	No	N/A	No	N/A	N/A

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project. SMAQMD = Sacramento Metropolitan Air Quality Management District; PCAPCD = Placer County Air Pollution Control District; ROG= reactive organic gases; NOX = N

As shown in Table 2, operation of the Project would not generate ROG, NO_X, or particulate matter that would exceed the applicable PCAPCD numeric thresholds. This conclusion is consistent with the conclusion in the 2015 EIR. As such, Project operation would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB.

Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations.

Localized Carbon Monoxide Concentrations

As noted in the 2015 EIR, increased passenger traffic near the Sacramento and Roseville stations would have the potential to create CO hot spots. The Project would not induce additional motor vehicles to travel to the Sacramento or Roseville transit stations, because ridership is not affected by the specific location of a layover facility. Thus, the Project would not have the potential to create CO hot spots beyond those analyzed in the 2015 EIR. As a result, consistent with the localized carbon monoxide analysis provided in the 2015 EIR, the Project would not be expected to result in CO hot spots at the intersections surrounding the transit stations.

Localized Diesel Particulate Matter Concentrations

Construction activities would generate emissions of diesel particulate matter (DPM) from the use of heavy-duty off-road equipment, including ballast-hauling locomotives, and trucks used for hauling materials. During the Project's operational phase, increased DPM emissions would be generated by locomotive activity along the rail line covering the additional distance to the proposed layover facility, locomotive idling at the layover facility, and the proposed diesel-fueled emergency generator. Sensitive receptors in the Project area include Roseville High School and multiple residences located directly adjacent to the Project boundary.

Because the Project would introduce DPM emissions in an area near existing sensitive receptors, a Health Risk Assessment (HRA) was conducted in accordance with PCAPCD guidelines. The HRA uses EPA's most recent air dispersion model, AERMOD (version 22112), and risk assessment methodologies for DPM provided by the Office of Environmental Health Hazard Assessment (OEHHA 2015). The HRA consists of three parts: an emissions inventory, air dispersion modeling, and risk calculations.

Exposure to DPM emissions from construction activities and locomotive movement and idling during Project operation was assessed by predicting the health risks in terms of excess cancer, non-cancer hazard impacts, and elevated DPM concentrations. Cancer health risk from exposure to diesel exhaust is associated with chronic exposure, in which a 30-year exposure period is assumed. DPM exposure and associated health risks are dependent on several factors, including variation in receptor behavior and physiology, as well as meteorological conditions and the release characteristics of the engine exhaust. Depending on the release height and other variables, the highest exposure may not be at locations nearest to the track. Note that DPM concentrations, and thus cancer risks, dissipate as a function of distance from the emissions source.

The results of the HRA are summarized in Table 3 and compared to PCAPCD's health risk thresholds (PCAPCD 2017b).

Table 3. Mitigated and Unmitigated Health Risks Resulting from Project Construction and Operation

Condition	DPM Cancer Risk	Chronic Non-Cancer HI
Project Construction and Operation		
Construction – Unmitigated	2.3	< 0.01
Construction – Mitigated	1.0	< 0.01
Operation	6.5	< 0.01
Cumulative - Unmitigated (Construction + Operation)	8.8	-
Cumulative - Mitigated (Construction + Operation)	7.5	
PCAPCD Threshold	10	1
Exceed?	No	No

Source: Attachment A of this memorandum.

Notes: Data represent maximum health risks at evaluated receptor locations; DPM = diesel particulate matter.

As shown in Table 3, DPM emissions generated by Project construction, operation, and the cumulative total of both would not result in chronic non-cancer or cancer risks that exceed PCAPCD health risk thresholds. The mitigated construction health risk estimates account for reductions in DPM emissions achieved by using Tier 4 Final construction equipment, as required by Mitigation Measure AQ-1 (see Impact AQ-2). However, this mitigation measure is not required to prevent health risks from exceeding the cancer risk threshold.

Naturally Occurring Asbestos

Disturbance of rock and soil that contains (naturally occurring asbestos) NOA can result in consequent exposure to the public. Asbestos most commonly occurs in serpentine rock and its parent material, ultramafic rock. Construction activities in areas known to contain ultramafic rocks may expose workers and the general public to NOA. The 2015 EIR evaluated the potential for construction in Placer County to expose sensitive receptors to NOA.

As described in the 2015 EIR, the Project is located in an area "least likely to contain NOA" according to the *Naturally Occurring Asbestos Hazard* map for Placer County (California Geological Survey 2008). Accordingly, submission of an NOA mitigation plan is not required for the Project, but compliance with PCAPCD Rule 228 would be required.

Impact AQ-5: Creation of objectionable odors affecting a substantial number of people.

Sources of odor during construction include diesel exhaust from construction equipment and asphalt paving. Odors from equipment exhaust would be localized and generally confined to the immediate area surrounding the work site. The Project would involve typical construction techniques, and the equipment odors would be typical of most construction sites and of temporary duration. Potential odors generated during asphalt paving would be addressed through mandatory compliance with PCAPCD Rule 217, which limits the amount of ROG from cutback asphalt.

As described in the 2015 EIR, guidance from the California Air Resources Board (CARB) indicates that land uses typically associated with odor complaints include agricultural activities, wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding facilities (CARB 2005). Operations would not include any uses

typically associated with odors and accordingly would not produce objectionable odors affecting a substantial number of people. Any odors resulting from diesel fuel combustion along the extended track or at the layover facility would be short term, occurring as trains pass by or during periods of idling. Idling time would be minimized, because locomotives and trains would connect to the electric grid for power. Moreover, odors associated with the expanded passenger rail service would be consistent with existing land uses, which include Union Pacific Railroad freight activity, in the Project vicinity.

Accordingly, the Project would not be expected to create objectionable odors affecting a substantial number of people.

CEQA Greenhouse Gas Analysis Results

This section describes the estimated greenhouse gas (GHG) impacts resulting from GHG emissions generated by Project construction and operation as required under CEQA.

Impact GHG-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction

Table 4 summarizes the Project's estimated construction GHG emissions. Detailed model assumptions and outputs are provided in Attachment A to this memorandum.

Table 4. Estimated Construction GHG Emissions (metric tons per year)

Year	CO_2	CH ₄	N_2O	Other	CO ₂ e
2015 EIR					
Year 1	1,716	<1	<1	3	1,739
Year 2	1,675	<1	<1	3	1,698
Year 3 (2015 EIR)	133	<1	<1	<1	135
Roseville Layover	<u>494</u>	<u><1</u>	<u><1</u>	<u><1</u>	<u>508</u>
Total	4.018	<u><1</u>	<u><1</u>	<u>6</u>	<u>4,080</u>

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2 e = carbon dioxide equivalents; other = emissions associated with on road gasoline vehicles, including CO_2 , CH_4 , N_2O , and HFCs; and SF_6 emissions from electricity usage.

As shown in Table 4, Project construction would result in GHG emissions that would generate approximately 4,080 metric tons of $CO_{2}e$ over the course of the approximately 12-month Project construction period. This estimate is conservative, because as noted for AQ-2, some unavoidable double counting may occur between these proposed layover facility emissions and the construction emissions from the maintenance facility from the 2015 EIR. As noted in the 2015 EIR, short-term emissions during construction would be offset through long-term GHG savings achieved during operations. This conclusion would still apply to the Project.

Operations

Table 5 summarizes the Project's estimated operational GHG emissions. Detailed model assumptions and outputs are provided in Attachment A to this memorandum. The emissions shown in Table 2 represent the entire Sacramento to Roseville Third Main Track Project with the revised location of the layover facility. The only difference in emissions between what is shown in Table 2 and what is shown in the 2015 EIR is the additional run-time of approximately two minutes that would occur from the revised layover facility location. Idling emissions would remain the same as in the 2015 EIR and are thus not included in Table 5. As noted for Impact AQ-1, the emissions shown in Table 5 are conservative because of the potential overlap between the proposed layover facility emissions and the 2015 EIR maintenance facility emissions, which the proposed layover facility would likely replace.

Table 5. Estimated Net Operational GHG Emissions (metric tons per year)

Source	CO ₂	CH ₄	N ₂ O	Other	CO ₂ e
Existing Conditions (2013)			-		•
Train operation	2,223.4	0.2	<u>0.1</u>	=	2,243.3
Public vehicles	-4,508.2	-	-	-54.1	-4,562.3
Public Buses – Thruway	-20.2	<-0.1	<-0.1	-	-20.3
Public Buses – Roseville	7.8	< 0.1	< 0.1	-	7.8
O&M at Roseville Station	28.9	0.1	< 0.1	0.1	32.2
Standby Electricity Usage	-80.3	<-0.1	<-0.1	<-0.1	-80.9
Total Net Change	-2,348.8	0.3	<u>0.1</u>	<u>-54.0</u>	-2,380.2
Design Year Conditions (2035)					
Train operation	<u>3.147.9</u>	<u>0.2</u>	<u>0.1</u>	=	<u>3,176.1</u>
Public vehicles	-3,387.8	-	-	-40.7	-3,428.5
Public Buses – Thruway	-18.4	<-0.1	<-0.1	-	-18.4
Public Buses – Roseville	7.1	< 0.1	< 0.1	-	7.1
O&M at Roseville Station	18.0	0.1	< 0.1	0.1	21.2
Standby Electricity Usage	-36.2	<-0.1	<-0.1	<-0.1	-36.7
O&M at Roseville Layover Facility	<u>95.3</u>	<u>0.3</u>	<u><0.1</u>	=	<u>104.1</u>
Total Net Change	<u>-174.1</u>	0.6	0.1	<u>-40.6</u>	<u>-175.1</u>

Source: 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2 e = carbon dioxide equivalents; other = emissions associated with on road gasoline vehicles, including CO_2 , CH_4 , N_2O , and HFCs; and SF_6 emissions from electricity usage.

As shown in Table 5, implementation of the Project would reduce operational GHG emissions under design year conditions. GHG benefits achieved through operation of the Project would offset the short-term construction emissions in approximately 23 years. This timeframe is conservative,

 $^{^{1}}$ Calculated by dividing short-term construction emissions by the annual long-term emissions savings (4,080 metric tons $CO_2e/175$ metric tons CO_2e per year = 23 years).

however, because of the overlap in emissions described above. In reality, the offset time is likely to be less than this value. Emissions savings achieved thereafter would contribute to reductions in GHG emissions, which would be an environmental benefit. Accordingly, GHG emissions generated by the Project would not exceed any published draft emissions thresholds or the net zero threshold used for this analysis.

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation, including Senate Bill (SB) 32 and Assembly Bill (AB) 1279. In December 2022, CARB adopted its Final 2022 Scoping Plan Update for Achieving Carbon Neutrality (2022 Scoping Plan), which identifies a technologically feasible, cost-effective and equity-focused path to achieve carbon neutrality by 2045, pursuant to AB 1279, as well as the GHG emissions reduction goal called for in SB 32. In addition, SACOG has adopted the 2020 MTP/SCS to reduce transportation-related emissions throughout the region. Consistency with these documents is evaluated below.

CARB's Scoping Plan and SACOG's MTP/SCS include strategies to reduce single-occupancy vehicle usage and to increase alternative transportation (CARB 2022; SACOG 2019). The Project would result in minor additional locomotive travel of approximately two minutes per train, but it would support efforts to expand passenger rail service and accommodate increased ridership, as the proposed layover facility would be used for maintenance of passenger trains. As a result, implementation of the Project would support CARB and SACOG strategies to reduce single-occupancy vehicle usage and increase alternative transportation, as well as attainment of regional and statewide GHG polices and reduction targets.

Impact GHG-3: Subject property and persons to otherwise avoidable physical harm in light of inevitable climate change

Unavoidable climate change may result in a range of potential impacts on the Project vicinity; these include increased temperatures, increased heat events, worsened air quality, increased storm intensity, increased wildland fire frequency or intensity, changes in disease and pest vectors, and changes in water supply. However, the Project would subject property or people to physical harm from climate change effects, beyond the potential evaluated in the 2015 EIR. The Project would not affect ridership and is simply moving the layover facility from one location to another, within the same general area. As such, there is no additional potential for the Project to cause physical harm from climate change. The conclusions of the 2015 EIR for this impact are also applicable to the proposed Project.

NEPA Results

This section describes the estimated air quality impacts from construction and operation of the Project as required under NEPA and demonstrates that the Project would not lead to a violation of the applicable General Conformity *de minimis* thresholds.

Attainment Status

The Project site is located in Placer County in the Sacramento Valley Air Basin, which is designated by U.S. Environmental Protection Agency (USEPA) as nonattainment for the National Ambient Air Quality Standards (NAAQS) for ozone and PM_{2.5}, as shown in Table 6. Nonattainment status indicates that measured concentrations of these pollutants in the region have violated the NAAQS in the past.

Table 6. Federal Criteria Pollutant Attainment Status for the Project Site

Criteria Pollutant	Federal Designation
Ozone	Severe Nonattainment (2008 8-hour standards);
	Serious Nonattainment (2015 8-hour standard)
PM _{2.5}	Moderate Nonattainment (2006 standard)
CO	Moderate Maintenance
All other pollutants	Attainment
Source: U.S. EPA 2023b.	

Project Emissions

Air Quality

Table 7 summarizes the Project's estimated annual construction and operational criteria pollutant emissions, which are compared to the applicable General Conformity *de minimis* thresholds (i.e., the applicable de minimis emission levels determined by the attainment status of the Project area).

Table 7. Annual Criteria Pollutant Emissions (tons per year)

Activity/Year	ROG	NOx	СО	PM_{10}	PM _{2.5}	SO ₂
Construction						
2015 EIR						
Year 1	1.7	12.4	8.4	1.3	0.6	<0.1
Year 2	1.6	11.2	8.4	1.2	0.6	< 0.1
Year 3	0.2	0.7	0.7	< 0.1	< 0.1	< 0.1
Roseville Layover	<u>0.1</u>	<u>0.7</u>	<u>1.2</u>	<u>2.0</u>	<u>0.2</u>	< <u>0.1</u>
Net Emissions (2015 EIR Year 3 + Roseville Layover)	<u>0.3</u>	<u>1.4</u>	<u>1.9</u>	<u>2.0</u>	0.2	<u><0.1</u>
Long-Term Operation (Design Year)	<u>-0.5</u>	<u>5.1</u>	<u>-0.7</u>	-2.0	<u>-0.5</u>	<-0.1
De minimis Level	25	25	100	100	100	100
Exceed?	No	No	No	No	No	No

Source: U.S. EPA 2023c; 2015 Sacramento to Roseville Third Main Track Environmental Impact (2015 EIR); Attachment A of this memorandum.

Notes: Bold, underlined text indicates changes in emissions from 2015 EIR resulting from the Proposed Project; CO = carbon monoxide; NA = threshold not applicable or no threshold established; NOx = nitrogen oxide; PM2.5 = particulate matter no more than 2.5 microns in diameter; PM10 = particulate matter no more than 10 microns in diameter; $SO_2 = sulfur$ dioxide; ROG = reactive organic gases.

The Project's estimated construction and operational criteria pollutant emissions would be below all thresholds, as shown in Table 7. Based on the estimated emission levels, ambient pollutant

concentrations associated with the Project would not exceed the applicable General Conformity thresholds.

Climate Change

Please refer to the discussion under Impact GHG-1 for a discussion of the Project's GHG emissions. As shown in Table 7, Project construction would generate approximately 4,080 metric tons of CO_2e during the 12-month construction period. However, long-term operation of the Project would reduce GHG emissions under design year conditions. GHG benefits achieved through operation of the Build Alternative would offset the short-term construction emissions in approximately 23 years. Emissions savings achieved thereafter would contribute to reductions in GHG emissions. Accordingly, the Project would result in an eventual beneficial impact on GHG emissions.

Please refer to the discussion under Impact GHG-3 for a discussion of the Project's potential to result in significant increased risk to people or structures from climate change. As discussed in Impact GHG-3, the Build Alternative would not result in significant increased risk to people or structures from climate change.

Summary

For air quality, the estimated criteria pollutant emission generated by Project construction would be below applicable PCAPCD thresholds with the implementation of Mitigation Measure AQ-1, which requires the reduction of NO_X emissions to a level below the applicable PCAPCD threshold through the use of Tier 4 Final equipment or the purchase of NO_X credits to offset remaining NO_X construction emissions exceeding PCAPCD thresholds. In addition, the Project's operational criteria pollutant emissions would be below PCAPCD's significance thresholds. Thus, with mitigation, the Project's construction and operational criteria pollutant emissions would not exceed the applicable PCAPCD CEQA significance thresholds and would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SFBAAB. Compared to the Project's impacts identified in the November 2015 Final EIR, the changes associated with the Roseville layover design would not be substantially more severe than those analyzed in 2015 with the incorporation of mitigation.

For GHG emissions, implementation of the Project would result in net negative operational GHG emissions under design year conditions, and GHG benefits achieved through operation of the Project would eventually offset the short-term construction emissions. Emissions savings achieved thereafter would contribute to reductions in GHG emissions resulting in an environmental benefit. Accordingly, GHG emissions generated by the Project would not exceed any published draft emissions thresholds or the net zero threshold used for this analysis. Compared to the Project's impacts identified in the November 2015 Final EIR, the changes associated with the Roseville layover design would not be substantially more severe than those analyzed in 2015.

For NEPA considerations, the Project would not be expected to exceed the *de minimis* thresholds during either construction or operation. Therefore, the Project would result in no adverse air quality effects under NEPA.

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Attachment A

Modeling Outputs and Detailed Assumptions

This attachment includes the components listed below.

- Six sets of CalEEMod modeling outputs:
 - Unmitigated annual emissions generated by construction of the layover facility (identified with the phase "Unmitigated Annual" on the first page of the applicable output tables);
 - Mitigated annual emissions generated by construction of the layover facility (identified with the term "Mitigated Annual" on the first page of the applicable output tables);
 - Unmitigated maximum daily emissions generated by construction of the layover facility (identified with the term "Unmitigated Max Daily" on the first page of the applicable output tables);
 - Mitigated maximum daily emissions generated by construction of the layover facility (identified with the term "Mitigated Max Daily" on the first page of the applicable output tables);
 - Unmitigated annual emissions generated by the use of ballast-hauling locomotives during Project construction (identified with the term "Unmitigated Locomotive" on the first page of the applicable output tables); and
 - Mitigated annual emissions generated by the use of ballast-hauling locomotives during Project construction (identified with the term "Mitigated Locomotive" on the first page of the applicable output tables).
- A Microsoft Excel Workbook containing operational locomotive emissions modeling.
- A Microsoft Excel Workbook containing health risk assessment parameters, modeling results, and risk calculations.

Roseville Layover Unmitigated Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Unmitigated
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.756638691082856, -121.27398577092818
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq	Special Landscape	Population	Description
					ft)	Area (sq ft)		

Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	_	_	_
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.43	6.07	24.4	25.9	0.07	0.76	37.3	38.0	0.71	4.02	4.73	_	8,875	8,875	0.27	0.50	8.79	9,039
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.55	4.08	6.32	5.34	0.03	0.14	37.5	37.6	0.13	4.26	4.39	_	3,910	3,910	0.07	0.46	0.17	4,050
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.31	0.77	3.94	3.43	0.01	0.10	9.66	9.77	0.10	1.09	1.18	_	1,619	1,619	0.04	0.13	0.90	1,661
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.06	0.14	0.72	0.63	< 0.005	0.02	1.76	1.78	0.02	0.20	0.22	_	268	268	0.01	0.02	0.15	275

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

				J, J														
Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.45	0.36	5.27	4.11	0.02	0.12	31.3	31.4	0.11	3.59	3.70	_	3,344	3,344	0.06	0.41	5.96	3,472
2028	2.43	6.07	24.4	25.9	0.07	0.76	37.3	38.0	0.71	4.02	4.73	_	8,875	8,875	0.27	0.50	8.79	9,039
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.43	0.35	5.56	3.75	0.02	0.12	31.3	31.4	0.11	3.59	3.70	_	3,307	3,307	0.06	0.42	0.15	3,433
2028	0.55	4.08	6.32	5.34	0.03	0.14	37.5	37.6	0.13	4.26	4.39	_	3,910	3,910	0.07	0.46	0.17	4,050
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.13	0.10	1.64	1.13	0.01	0.04	9.36	9.39	0.03	1.07	1.11	_	992	992	0.02	0.12	0.77	1,031
2028	0.31	0.77	3.94	3.43	0.01	0.10	9.66	9.77	0.10	1.09	1.18	_	1,619	1,619	0.04	0.13	0.90	1,661
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.02	0.02	0.30	0.21	< 0.005	0.01	1.71	1.71	0.01	0.20	0.20	_	164	164	< 0.005	0.02	0.13	171
2028	0.06	0.14	0.72	0.63	< 0.005	0.02	1.76	1.78	0.02	0.20	0.22	_	268	268	0.01	0.02	0.15	275

2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	ì	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	—	—		_	_	_	_	_	_	_
Unmit.	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739

Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7

Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	_	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Waste	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.19	1.75	1.87	< 0.005	0.07	_	0.07	0.07	_	0.07	_	455	455	0.02	< 0.005	_	456
Dust From Material Movemen	<u> </u>	_	_	_	_	_	0.78	0.78	_	0.38	0.38	_			_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	-	_	_	_	_
Off-Road Equipmen		0.19	1.75	1.87	< 0.005	0.07	_	0.07	0.07	_	0.07	_	455	455	0.02	< 0.005	_	456
Dust From Material Movemen		_	_	-	_	_	0.78	0.78	_	0.38	0.38	_	_	-	-	-	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.06	0.52	0.56	< 0.005	0.02	_	0.02	0.02	_	0.02	_	136	136	0.01	< 0.005	_	137

Dust From Material	_	_	_	_	_	_	0.23	0.23	_	0.11	0.11	_	_	-	_	_	_	_
Movemen Demolitio n		_	_	_	_	_	0.04	0.04	_	0.01	0.01	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.10	0.10	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	22.5	22.5	< 0.005	< 0.005	_	22.6
Dust From Material Movemen		_	_	_	_	_	0.04	0.04	_	0.02	0.02	_	_	_	_	_	_	_
Demolitio n	_	_	_	-	_	-	0.01	0.01	-	< 0.005	< 0.005	_	_	-	_	_	_	-
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.19	1.67	1.87	< 0.005	0.07	_	0.07	0.07	_	0.07	_	454	454	0.02	< 0.005	_	456
Dust From Material Movemen		-	_	_	_	_	0.78	0.78	_	0.38	0.38	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	

Off-Road Equipmen		0.03	0.29	0.33	< 0.005	0.01	_	0.01	0.01	_	0.01	_	80.0	80.0	< 0.005	< 0.005	_	80.3
Dust From Material Movemen:	_	_	_	_	_	_	0.14	0.14	_	0.07	0.07	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	_	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.05	0.06	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	13.3	13.3	< 0.005	< 0.005	_	13.3
Dust From Material Movemen:		_	_	_	_	_	0.02	0.02	_	0.01	0.01	_	-	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	_	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	-	-	-	-	_	_	-	_	-	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	-	_	-	_	_	_	-	_	-	_	_	_
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6

Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.05	0.48	0.76	< 0.005	0.02	_	0.02	0.02	_	0.02	_	116	116	< 0.005	< 0.005	_	117
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.05	0.48	0.76	< 0.005	0.02	_	0.02	0.02	_	0.02	_	116	116	< 0.005	< 0.005	_	117
Architect ural Coatings	_	3.61	_	_		_	_		_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.01	0.06	0.09	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	14.0	14.0	< 0.005	< 0.005	_	14.1
Architect ural Coatings	_	0.44	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		< 0.005	0.01	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.32	2.32	< 0.005	< 0.005	_	2.33
Architect ural Coatings	_	0.08	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	_	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	-
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7

Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

			,	J, J		, , , , , , ,				. ,	,							
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_		_	_		_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.14	9.92	11.4	0.03	0.42	_	0.42	0.39	_	0.39	_	2,749	2,749	0.11	0.02	_	2,758
Paving	_	0.01	_				_	_		_	_	_	_	_	_	_	_	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	_	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.07	0.60	0.69	< 0.005	0.03	_	0.03	0.02	_	0.02	_	166	166	0.01	< 0.005	_	166
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	_	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipmen		0.01	0.11	0.13	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	27.4	27.4	< 0.005	< 0.005	_	27.5
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	_	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	-	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

Ontona	i Ollataii	بنک رانی من	y ioi aan	y, ton/yr	ioi aiiii	iai, aria		orady ioi	dairy, iv	11/y1 101	ariiriaaij							
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.82	10.1	7.51	0.02	0.28	_	0.28	0.26	_	0.26	_	1,894	1,894	0.11	0.03	_	1,905
Dust From Material Movemen	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	_	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.15	1.83	1.36	< 0.005	0.05	-	0.05	0.05	_	0.05	_	343	343	0.02	0.01	_	345
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.03	0.33	0.25	< 0.005	0.01	-	0.01	0.01	_	0.01	_	56.7	56.7	< 0.005	< 0.005	_	57.0
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	_	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Other Non-Asph Surfaces	0.00 nalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_
Other Non-Asph Surfaces	0.00 nalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Annual	_	_	_	-	_	_	_	-	_	_	_	-	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 nalt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

				ly, ton/yr														
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56
Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

Source	TOG	ROG		СО		PM10E			PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44

Daily, Winter (Max)	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings		0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.01	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer																		
(Max)																		

Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	-	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	-	_	0.00	0.00	0.00	0.00	0.00	-	0.00
General Office Building	_	_	_	_	_	_	_	-	_	-	_	2.72	3.95	6.68	0.28	0.01	-	15.7
Parking Lot	_	_	_	_	_	-	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	-	_	0.45	0.65	1.11	0.05	< 0.005	-	2.59
Parking Lot	_	_	-	_	-	-	_	-	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	<u> </u>	_	_	_	_	<u> </u>	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	-	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	-	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

		10 (10, 00,	,	<i>J</i> , <i>J</i>					,	· · · J · · · · ·								
Equipme nt Type	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Ontona				i i	1									000-	0111	Na O		000
Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG			со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total		_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Species	TOG	ROG	NOx	CO	SO2			b/day for PM10T				BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Sequest	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	_
Structures	Building Construction	3/1/2028	5/1/2028	5.00	44.0	_
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	_
Track and Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	0.06	50.0	0.42

Site Work: Grading and Earthwork	Tractors/Loaders/Backh	Diesel	Average	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	0.90	160	0.43
Structures	Other Construction Equipment	Diesel	Average	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Average	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Average	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	5.06	275	0.38
Roadway Work	Paving Equipment	Diesel	Average	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	5.06	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.55	160	0.42
Track and Signal Work	Rubber Tired Loaders	Diesel	Average	1.00	0.97	250	0.36
Track and Signal Work	Tractors/Loaders/Backh oes	Diesel	Average	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	6.00	0.07	75.0	0.42

Track and Signal Work	Other Construction Equipment	Diesel	Average	4.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Average	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Average	4.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	8.00	0.52	100	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	8.00	0.52	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.73	300	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures	_	_	_	_
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2

Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT
Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	_	_	_	_
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Structures	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of	Acres Paved (acres)
				Deniis)	

Site Work: Grading and Earthwork	12,783	27,225	13.3	1,000	_
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track and Signal Work	11,690	_	3.20	0.00	_

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
raiking Lut	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
•								

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	_
General Office Building	25.0	_
Parking Lot	0.00	_

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Equipment Type	I doi typo	Linguis rici	I vallibol pol Day	Thousand Day	1 lorsopower	Load I doloi

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Appual Heat Input (MMRtu/yr)
Equipment Type	i dei type	Nullibel	Doller Rating (MIMDIG/III)	Daily Heat Input (Wilvibla/day)	Annual Fleat Input (MiMbtu/yi)

5.17. User Defined

Equipment Type	Fuel Type
_	_

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

regulation Land ode Type Tregulation Con Type Time The Time The Control of Time The Co	Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Biomaco Cover Type	Titilal 7 to 100	T Har 7 to 100

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree	e Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
	21		, , ,	

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.		
Indicator	Result for Project Census Tract	
Exposure Indicators	_	
AQ-Ozone	65.4	
AQ-PM	16.4	
AQ-DPM	62.4	
Drinking Water	0.54	
Lead Risk Housing	38.6	
Pesticides	0.00	
Toxic Releases	14.7	
Traffic	80.2	
Effect Indicators	_	
CleanUp Sites	62.4	
Groundwater	86.7	
Haz Waste Facilities/Generators	52.6	
Impaired Water Bodies	72.2	
Solid Waste	94.1	
Sensitive Population	_	
Asthma	46.2	
Cardio-vascular	83.6	
Low Birth Weights	28.8	
Socioeconomic Factor Indicators		
Education	11.4	
Housing	69.2	
Linguistic	0.92	
Poverty	42.6	

Harara la marat	04.5
 Unemployment	64.5

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier co- Indicator	Result for Project Census Tract
Economic	
Above Poverty	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	_
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	
Auto Access	87.47593995
Active commuting	52.35467727
Social	_
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	_
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	_
Homeownership	54.45912999

Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	_
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	_
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	_
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	_
Hardship	35.6
Other Decision Support	_
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 3 locomotive.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover Mitigated v4 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Mitigated v4
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.756638691082856, -121.27398577092818
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq	Special Landscape	Population	Description
					ft)	Area (sq ft)		

Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	_	_	_
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.05	6.61	16.3	27.9	0.06	0.53	37.3	37.8	0.50	4.02	4.51	_	8,867	8,867	0.27	0.50	8.79	9,031
Mit.	0.91	5.07	6.63	30.4	0.06	0.13	21.7	21.9	0.13	2.47	2.60	_	8,509	8,509	0.24	0.49	8.79	8,669
% Reduced	56%	23%	59%	-9%	6%	75%	42%	42%	73%	39%	42%	_	4%	4%	11%	2%	_	4%
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.48	4.02	5.89	6.00	0.03	0.12	37.5	37.6	0.11	4.26	4.37	_	3,908	3,908	0.07	0.46	0.17	4,049

Mit.	0.32	3.89	4.53	5.98	0.03	0.06	21.5	21.5	0.06	2.47	2.53	_	3,908	3,908	0.07	0.46	0.17	4,049
% Reduced	33%	3%	23%	< 0.5%	_	49%	43%	43%	47%	42%	42%	_	_	_	_	_	_	_
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.23	0.86	2.41	3.91	0.01	0.06	9.66	9.72	0.06	1.09	1.14	_	1,618	1,618	0.04	0.13	0.90	1,660
Mit.	0.14	0.67	1.54	3.89	0.01	0.02	5.59	5.61	0.02	0.65	0.67	_	1,553	1,553	0.04	0.13	0.90	1,594
% Reduced	40%	22%	36%	1%	_	57%	42%	42%	55%	40%	41%	_	4%	4%	12%	1%	_	4%
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.04	0.16	0.44	0.71	< 0.005	0.01	1.76	1.77	0.01	0.20	0.21	_	268	268	0.01	0.02	0.15	275
Mit.	0.03	0.12	0.28	0.71	< 0.005	< 0.005	1.02	1.02	< 0.005	0.12	0.12	_	257	257	0.01	0.02	0.15	264
% Reduced	40%	22%	36%	1%	6%	57%	42%	42%	55%	40%	41%	_	4%	4%	12%	1%	_	4%

2.2. Construction Emissions by Year, Unmitigated

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.38	0.31	4.81	4.78	0.02	0.10	31.3	31.3	0.09	3.59	3.68	_	3,342	3,342	0.06	0.41	5.96	3,470
2028	2.05	6.61	16.3	27.9	0.06	0.53	37.3	37.8	0.50	4.02	4.51	_	8,867	8,867	0.27	0.50	8.79	9,031
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.36	0.29	5.10	4.42	0.02	0.10	31.3	31.3	0.09	3.59	3.68	_	3,306	3,306	0.06	0.42	0.15	3,431
2028	0.48	4.02	5.89	6.00	0.03	0.12	37.5	37.6	0.11	4.26	4.37	_	3,908	3,908	0.07	0.46	0.17	4,049

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.11	0.09	1.50	1.33	0.01	0.03	9.36	9.39	0.03	1.07	1.10	_	992	992	0.02	0.12	0.77	1,030
2028	0.23	0.86	2.41	3.91	0.01	0.06	9.66	9.72	0.06	1.09	1.14	_	1,618	1,618	0.04	0.13	0.90	1,660
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.02	0.02	0.27	0.24	< 0.005	0.01	1.71	1.71	0.01	0.20	0.20	_	164	164	< 0.005	0.02	0.13	171
2028	0.04	0.16	0.44	0.71	< 0.005	0.01	1.76	1.77	0.01	0.20	0.21	_	268	268	0.01	0.02	0.15	275

2.3. Construction Emissions by Year, Mitigated

Year	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	-	_	_	-	_	_	-	-	_	_	_	_	_	_	-
2027	0.26	0.21	3.76	4.69	0.02	0.05	17.8	17.9	0.05	2.06	2.12	_	3,342	3,342	0.06	0.41	5.96	3,470
2028	0.91	5.07	6.63	30.4	0.06	0.13	21.7	21.9	0.13	2.47	2.60	_	8,509	8,509	0.24	0.49	8.79	8,669
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.24	0.20	4.05	4.34	0.02	0.05	17.8	17.9	0.05	2.06	2.12	_	3,306	3,306	0.06	0.42	0.15	3,431
2028	0.32	3.89	4.53	5.98	0.03	0.06	21.5	21.5	0.06	2.47	2.53	_	3,908	3,908	0.07	0.46	0.17	4,049
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.07	0.06	1.18	1.30	0.01	0.02	5.34	5.36	0.02	0.62	0.63	_	992	992	0.02	0.12	0.77	1,030
2028	0.14	0.67	1.54	3.89	0.01	0.02	5.59	5.61	0.02	0.65	0.67	_	1,553	1,553	0.04	0.13	0.90	1,594
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.01	0.01	0.22	0.24	< 0.005	< 0.005	0.98	0.98	< 0.005	0.11	0.12	_	164	164	< 0.005	0.02	0.13	171
2028	0.03	0.12	0.28	0.71	< 0.005	< 0.005	1.02	1.02	< 0.005	0.12	0.12	_	257	257	0.01	0.02	0.15	264

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	-	-	_	_	-	-	-	_	-
Unmit.	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	-
Unmit.	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	-
Unmit.	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual (Max)	_	_	_	-	-	_	_	_	_	_	_	_	-	_	_	-	_	_
Unmit.	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2

Refrig.		_	_	_		_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	_	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Waste	_	_	_	_	_	_	_	_		_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

2.6. Operations Emissions by Sector, Mitigated

Sector	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.41	0.63	0.43	2.51	0.01	0.02	0.39	0.42	0.02	0.10	0.12	16.2	712	728	1.67	0.03	1.14	780
Daily, Winter (Max)	_	_	-	_	_	_	_	_	_	_	_	_	_	-	_	-	_	_
Mobile	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230

Water	_	_	_		_	_	_		_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.46	1.92	< 0.005	0.02	0.39	0.42	0.02	0.10	0.12	16.2	672	688	1.67	0.03	0.05	739
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.19	0.16	1.28	< 0.005	< 0.005	0.30	0.30	< 0.005	0.08	0.08	_	325	325	0.01	0.02	0.36	331
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.47	0.23	1.51	< 0.005	0.01	0.30	0.31	0.01	0.08	0.08	16.2	560	576	1.67	0.02	0.38	625
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Waste	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.28	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	2.69	92.7	95.3	0.28	< 0.005	0.06	103

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

				ily, ton/yi								7000	lub o o o	000=	lau.			
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_
Off-Road Equipmen		0.14	1.28	2.53	< 0.005	0.05	_	0.05	0.05	_	0.05	_	453	453	0.02	< 0.005	_	454
Dust From Material Movemen	<u> </u>	_	_	_	_	_	0.78	0.78	_	0.38	0.38	_	_	_	_	_	_	_
Demolitio n		_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.14	1.28	2.53	< 0.005	0.05	_	0.05	0.05	_	0.05	_	453	453	0.02	< 0.005	_	454
Dust From Material Movemen	_	_	_	_	_	_	0.78	0.78	_	0.38	0.38	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.04	0.38	0.76	< 0.005	0.02	_	0.02	0.01	_	0.01	_	136	136	0.01	< 0.005	_	136
Dust From Material Movement	_	_	_	_	_	_	0.23	0.23	_	0.11	0.11	_	_	-	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.04	0.04	_	0.01	0.01	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.01	0.07	0.14	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	22.4	22.4	< 0.005	< 0.005	_	22.5
Dust From Material Movement		_	_	_	_	_	0.04	0.04	_	0.02	0.02	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288

0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8
	0.07 0.03 0.01 0.02 0.01 < 0.005	0.07 0.04 — — 0.03 0.02 0.01 0.01 0.02 0.01 — — 0.01 < 0.005	0.07 0.04 2.61 — — — 0.03 0.02 0.02 0.01 0.01 0.26 0.02 0.01 0.76 — — — 0.01 < 0.005	0.07 0.04 2.61 0.54 — — — 0.03 0.02 0.02 0.31 0.01 0.01 0.26 0.07 0.02 0.01 0.76 0.16 — — — 0.01 < 0.005	0.07 0.04 2.61 0.54 0.01 — — — — 0.03 0.02 0.02 0.31 0.00 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 — — — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.09 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 — — — — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.09 0.00 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 — — — — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.09 0.00 0.02 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — — — — — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.09 0.00 0.02 0.02 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 —	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — 1,825 — — — — — — — — — — — 0.03 0.02 0.02 0.31 0.00 0.00 0.09 0.09 0.00 0.02 0.02 — 87.6 0.01 0.01 0.26 0.07 < 0.005	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — 1,825 1,825 — 197 197 197 197 197	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — 1,825 1,825 0.03 — 197 197 197 0.005 0.005 0.01 0.14 0.15	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — 1,825 1,825 0.03 0.29 —	0.07 0.04 2.61 0.54 0.01 0.03 0.47 0.51 0.03 0.13 0.16 — 1,825 1,825 0.03 0.29 0.09 0.03 0.02 0.02 0.31 0.00 0.09 0.09 0.00 0.02 0.02 — 87.6 87.6 < 0.005

3.2. Grading (2027) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.04	0.23	2.45	< 0.005	0.01	_	0.01	0.01	_	0.01	_	453	453	0.02	< 0.005	_	454
Dust From Material Movemen	<u> </u>	_	_	_	_	_	0.30	0.30	_	0.15	0.15	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	_	85.3	85.3	< 0.005	0.01	0.13	89.5

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_		_
Off-Road Equipmen		0.04	0.23	2.45	< 0.005	0.01	_	0.01	0.01	_	0.01	_	453	453	0.02	< 0.005	_	454
Dust From Material Movemen	_	_	_	_	-	_	0.30	0.30	_	0.15	0.15	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Off-Road Equipmen		0.01	0.07	0.73	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	136	136	0.01	< 0.005	_	136
Dust From Material Movemen	<u> </u>	_	_	_	-	_	0.09	0.09	_	0.04	0.04	_	_	_	_	_	_	_
Demolitio n	_	_	_	-	_	_	0.04	0.04	-	0.01	0.01	_	_	-	-	-	-	-
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	4.93	4.93	< 0.005	0.49	0.49	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.13	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	_	22.4	22.4	< 0.005	< 0.005	-	22.5
Dust From Material Movemen	_	_	_	_	_	_	0.02	0.02	_	0.01	0.01	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_

Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.90	0.90	< 0.005	0.09	0.09	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	-	_	-	_	-	-	_	_	_	_	_	_
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	_
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912
Average Daily	_	_	_	-	_	_	_	-	_	_	_	-	_	_	_	_	_	_
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_			_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.14	1.24	2.53	< 0.005	0.05	_	0.05	0.05	_	0.05	_	453	453	0.02	< 0.005	_	454
Dust From Material Movement	_	_	_	_	_	_	0.78	0.78	_	0.38	0.38	_	_	_	_	-	-	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.22	0.45	< 0.005	0.01	_	0.01	0.01	_	0.01	_	79.7	79.7	< 0.005	< 0.005	_	80.0
Dust From Material Movement	_	_	_	_	_	_	0.14	0.14	_	0.07	0.07	_	_	_	_	-	_	_
Demolitio n	_	_	_	_	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	_	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.04	0.08	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.2	13.2	< 0.005	< 0.005	_	13.2
Dust From Material Movement	_	_	_	_	_	_	0.02	0.02	_	0.01	0.01	_	_	_	_	_	_	_

Demolitio	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	_	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.4. Grading (2028) - Mitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	<u> </u>	_	<u> </u>	<u> </u>	<u> </u>	_	<u> </u>	_	_	_
Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer																		
(Max)																		

Daily, Winter (Max)				_	_	_	_		_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.04	0.23	2.45	< 0.005	0.01	_	0.01	0.01	_	0.01	_	453	453	0.02	< 0.005	_	454
Dust From Material Movemen	_	_	_	_	_	_	0.30	0.30	_	0.15	0.15	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	-	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	-	-	_	_	_	_	_	_	-	-	_	_	_	_	_
Off-Road Equipmen		0.01	0.04	0.43	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	79.7	79.7	< 0.005	< 0.005	_	80.0
Dust From Material Movemen	_	_	_	_	_	_	0.05	0.05	_	0.03	0.03	_	_	_	_	_	_	_
Demolitio n	_	_	_	-	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.90	2.90	< 0.005	0.29	0.29	-	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.08	< 0.005	< 0.005	-	< 0.005	< 0.005	-	< 0.005	-	13.2	13.2	< 0.005	< 0.005	-	13.2
Dust From Material Movemen		_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_

Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.53	0.53	< 0.005	0.05	0.05	-	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	<u> </u>	_	_	_	_	<u> </u>	_	_	_	<u> </u>	_	_	<u> </u>	<u> </u>	<u> </u>	_	_
Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer (Max)																		

Off-Road	0.05	0.05	0.48	0.76	< 0.005	0.02	_	0.02	0.02	_	0.02	_	116	116	< 0.005	< 0.005	_	117
Equipmen		0.00	0.10	0 0	7 0.000	0.02		0.02	0.02		0.02				7 0.000	1 0.000		
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Onsite ruck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.05	0.48	0.76	< 0.005	0.02	_	0.02	0.02	_	0.02	_	116	116	< 0.005	< 0.005	_	117
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite ruck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.06	0.09	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	14.0	14.0	< 0.005	< 0.005	_	14.1
Architect ural Coatings	_	0.44	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Onsite ruck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.32	2.32	< 0.005	< 0.005	_	2.33
Architect ural Coatings	_	0.08	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	_	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
ruck																		

Daily, Summer (Max)	_	_	_	_		_	_	_	_	_	_	_	_	_	_		_	_
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2028) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	<u> </u>	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipmen		0.01	0.12	0.82	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	116	116	< 0.005	< 0.005	_	117
Architect ural Coatings	_	3.61	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.12	0.82	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	116	116	< 0.005	< 0.005	_	117
Architect ural Coatings	_	3.61	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.10	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	14.0	14.0	< 0.005	< 0.005	_	14.1
Architect ural Coatings	_	0.44	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.40	0.40	< 0.005	0.04	0.04	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	< 0.005	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.32	2.32	< 0.005	< 0.005	_	2.33
Architect ural Coatings	_	0.08	_	_	_	_	_	_	_	_	_	_		_	_	_	_	
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	_	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite			_					_		_	_				_			_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Vorker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipmen		1.14	9.92	11.4	0.03	0.42	_	0.42	0.39	_	0.39	_	2,749	2,749	0.11	0.02	_	2,758
Paving	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	_	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.07	0.60	0.69	< 0.005	0.03	_	0.03	0.02	_	0.02	-	166	166	0.01	< 0.005	_	166
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	-	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.11	0.13	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	27.4	27.4	< 0.005	< 0.005	_	27.5
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	-	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2028) - Mitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.26	1.35	15.2	0.03	0.05	_	0.05	0.05	_	0.05	_	2,749	2,749	0.11	0.02	_	2,758
Paving	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	9.88	9.88	< 0.005	0.99	0.99	_	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.02	0.08	0.92	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	166	166	0.01	< 0.005	_	166
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	_	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16

Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	27.4	27.4	< 0.005	< 0.005	_	27.5
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	_	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

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Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		1.35	2.06	9.51	0.02	0.04	_	0.04	0.04	_	0.04	_	1,887	1,887	0.11	0.03	_	1,898
Dust From Material Movement	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	_	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Off-Road Equipment		0.24	0.37	1.72	< 0.005	0.01	_	0.01	0.01	_	0.01	_	341	341	0.02	0.01	_	343
Dust From Material Movement	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.04	0.07	0.31	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	56.5	56.5	< 0.005	< 0.005	_	56.8
Dust From Material Movement		_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	_	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

3.10. Trenching (2028) - Mitigated

Location	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.73	1.32	8.17	0.01	0.03	_	0.03	0.03	_	0.03	_	1,528	1,528	0.08	0.02	_	1,536

Dust From Material Movement		_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	6.58	6.59	< 0.005	0.66	0.66	_	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.13	0.24	1.48	< 0.005	0.01	_	0.01	0.01	_	0.01	_	276	276	0.01	< 0.005	_	278
Dust From Material Movement	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.19	1.19	< 0.005	0.12	0.12	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.02	0.04	0.27	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	45.7	45.7	< 0.005	< 0.005	_	46.0
Dust From Material Movement		_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	_	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876

35 / 80

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8

4.1.2. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

General Office Building	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.19	1.97	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	461	461	0.02	0.02	1.12	468
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.27	0.25	0.22	1.73	< 0.005	< 0.005	0.39	0.40	< 0.005	0.10	0.10	_	422	422	0.02	0.02	0.03	429
Annual	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.23	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	53.9	53.9	< 0.005	< 0.005	0.06	54.8

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	-	_	_	_	_	_	-	_	-	-	_	-	-	-	-	_	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_		_	_	-	-	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	-	-	_	_	_	_	-	_	_	_	3.38	3.38	< 0.005	< 0.005	-	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	_ alt	_	_	_	_	_	-	_	_	_	-	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	-	_	_	-	_	_	-	-	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	-	_	-	-	-	_	-	-	-	_	_	3.38	3.38	< 0.005	< 0.005	-	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	-	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	-	_	_	_	_	-	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	-	_	_	-	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56

Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.2. Electricity Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	-	_	-	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_			_	_	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56
Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)		_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Other Non-Asph Surfaces	0.00 nalt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	-	_	_	-	_	_	_	_	-	_	_	_	-	_
Other Non-Asph Surfaces	0.00 nalt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 nalt	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

	0.04	0.005	0.07	0.00	0.005	0.04		0.04	0.04		0.04		04.0	04.0	0.04	0.005		04.5
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01		0.01		81.2	81.2	0.01	< 0.005		81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01		81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_		_	_	_	_	_	_		_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

Source	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products		0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings		0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Landsca pe Equipme	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	-	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.3.1. Mitigated

Source	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily,	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer																		
(Max)																		

Consum er	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Daily, Winter (Max)	_	_	_	_	_	_	-	_	_	_	-	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	-	_	_	_	-	_	_	_	_	_	-	_
Architect ural Coatings	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	-	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	-	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.4.1. Mitigated

		110 (1.07 0.01	,	<i>y</i> , <i>y</i>		, , , , , , ,		D, day 10	,		,		_			_		
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_		_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

Total	_	_	_		_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces		_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Land Use	TOG	ROG	NOx	СО		PM10E	i i			PM2.5D		BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.5.1. Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2

Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	-	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	-	_	_	-	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	-	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Use																		

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005

4.6.2. Mitigated

Land Use	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_		_	_		_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.7.2. Mitigated

Equipme nt	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipme nt Type	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Emergen cy Generato	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.8.2. Mitigated

			•															
Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Emergen cy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.9.2. Mitigated

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio n						PM10E				PM2.5D		BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_

Remove	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Vegetatio n	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

		(<i>J</i> ,		adij dira												
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	<u> </u>	_	<u> </u>	_	_	_	_	_	<u> </u>	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_		<u> </u>	_		_	_	_		_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	<u> </u>

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	_

Structures	Building Construction	3/1/2028	5/1/2028	5.00	44.0	_
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	_
Track and Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Tractors/Loaders/Backh oes	Diesel	Average	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.06	50.0	0.42
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.90	160	0.42
Structures	Other Construction Equipment	Diesel	Average	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Average	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Average	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	5.06	275	0.38

Roadway Work	Paving Equipment	Diesel	Average	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	5.06	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.55	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.73	300	0.42
Track and Signal Work	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	2.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Tier 4 Final	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	0.52	100	0.42

Track and Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	0.97	250	0.36
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	0.52	75.0	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	1.58	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	0.32	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	0.90	250	0.40
Site Work: Grading and Earthwork	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	0.90	86.0	0.37
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	0.03	46.0	0.45
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	0.17	275	0.38
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.06	50.0	0.42
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.90	160	0.42
Structures	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.38	80.0	0.42
Structures	Welders	Diesel	Tier 4 Final	1.00	0.55	46.0	0.45
Structures	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	1.38	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	5.06	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.06	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	5.06	275	0.38
Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	1.08	630	0.36
Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	5.06	170	0.42

Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.06	150	0.43
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	250	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	1.28	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.55	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.73	300	0.42
Track and Signal Work	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	0.97	86.0	0.37
Track and Signal Work	Other Construction Equipment	Diesel	Average	1.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.18	4,400	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	5.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	3.00	0.07	200	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	200	0.42
Track and Signal Work	Cranes	Diesel	Tier 4 Final	4.00	0.07	130	0.29
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	3.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	10.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	350	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	350	0.42

Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	160	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	84.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.07	225	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	7.00	0.52	100	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.52	100	0.42
Track and Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	0.97	250	0.36
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	7.00	0.52	75.0	0.42
Track and Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	0.52	75.0	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT

Structures	_	_	_	_
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT
Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	_	_	_	_
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures	_	_	_	_
Structures	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures	Vendor	12.0	8.80	HHDT,MHDT
Structures	Hauling	0.00	20.0	HHDT

Structures	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track and Signal Work	_	_	_	_
Track and Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track and Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track and Signal Work	Hauling	9.00	27.0	HHDT
Track and Signal Work	Onsite truck	4.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Structures	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Site Work: Grading and Earthwork	12,783	27,225	13.3	1,000	_

Roadway Work	0.00	0.00	0.00	0.00	2.50
Track and Signal Work	11,690	_	3.20	0.00	_

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	552	125	39.6	152,383
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
		· situa

Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Liberticity (Kirring), and God and Girr and Hazo and Hazoratic God (Korring),							
Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)		
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00		
General Office Building	163,088	323	0.0330	0.0040	253,451		
Parking Lot	3,816	323	0.0330	0.0040	0.00		

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	_
General Office Building	25.0	_
Parking Lot	0.00	_

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	_
General Office Building	25.0	_
Parking Lot	0.00	_

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00

General Office Building	Other commercial A/C	R-410A	2,088	< 0.005	4.00	4.00	18.0
	and heat pumps						

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

5.16.2. Process Boilers

E 1 1 1 E	E 17	No. 1	D II D II (MAD)	D. II. II (MAND) (II.)	A 111 (1 (AMAD) ()
Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
_	_

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Llee Type	Vegetation Soil Type	Initial Acres	Final Acres
Vegetation Land Use Type	Vegetation Soil Type	Illitial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

D: 0 T	1.00 LA	E. IA
Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
Promises of the type	militar risks	7 mai 7 tor 55

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type Number Electricity Saved (kWh/year) Natural Gas Saved (btu/year)
--

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
21.5			

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.			
Indicator	Result for Project Census Tract		
Exposure Indicators	_		
AQ-Ozone	65.4		
AQ-PM	16.4		
AQ-DPM	62.4		
Drinking Water	0.54		
Lead Risk Housing	38.6		
Pesticides	0.00		
Toxic Releases	14.7		
Traffic	80.2		
Effect Indicators	_		
CleanUp Sites	62.4		
Groundwater	86.7		
Haz Waste Facilities/Generators	52.6		
Impaired Water Bodies	72.2		
Solid Waste	94.1		
Sensitive Population	_		
Asthma	46.2		
Cardio-vascular	83.6		
Low Birth Weights	28.8		
Socioeconomic Factor Indicators	_		
Education	11.4		
Housing	69.2		
Linguistic	0.92		
Poverty	42.6		

Unemployment	64.5	

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.			
Indicator	Result for Project Census Tract		
Economic	_		
Above Poverty	55.89631721		
Employed	49.83959964		
Median HI	43.92403439		
Education	_		
Bachelor's or higher	58.65520339		
High school enrollment	100		
Preschool enrollment	16.54048505		
Transportation	_		
Auto Access	87.47593995		
Active commuting	52.35467727		
Social	_		
2-parent households	62.5433081		
Voting	80.61080457		
Neighborhood	_		
Alcohol availability	65.41768254		
Park access	81.35506224		
Retail density	75.01604004		
Supermarket access	31.39997434		
Tree canopy	83.53650712		
Housing	_		
Homeownership	54.45912999		

Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	_
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	_
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	_
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	_
Hardship	35.6
Other Decision Support	_
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 4 locomotive.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover - Max Daily Unmit Detailed Report

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 - 5.12.1. Unmitigated
- 5.13. Operational Waste Generation

- 5.13.1. Unmitigated
- 5.14. Operational Refrigeration and Air Conditioning Equipment
 - 5.14.1. Unmitigated
- 5.15. Operational Off-Road Equipment
 - 5.15.1. Unmitigated
- 5.16. Stationary Sources
 - 5.16.1. Emergency Generators and Fire Pumps
 - 5.16.2. Process Boilers
- 5.17. User Defined
- 5.18. Vegetation
 - 5.18.1. Land Use Change
 - 5.18.1.1. Unmitigated
 - 5.18.1. Biomass Cover Type
 - 5.18.1.1. Unmitigated
 - 5.18.2. Sequestration
 - 5.18.2.1. Unmitigated
- 6. Climate Risk Detailed Report

- 6.1. Climate Risk Summary
- 6.2. Initial Climate Risk Scores
- 6.3. Adjusted Climate Risk Scores
- 6.4. Climate Risk Reduction Measures
- 7. Health and Equity Details
 - 7.1. CalEnviroScreen 4.0 Scores
 - 7.2. Healthy Places Index Scores
 - 7.3. Overall Health & Equity Scores
 - 7.4. Health & Equity Measures
 - 7.5. Evaluation Scorecard
 - 7.6. Health & Equity Custom Measures
- 8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover - Max Daily Unmit
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75695399967785, -121.27424308615056
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq	Special Landscape	Population	Description
					ft)	Area (sq ft)		

Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	_	_	_
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	10.9	21.7	227	163	0.39	6.09	37.3	43.3	5.75	5.35	9.77	_	42,609	42,609	2.27	1.05	8.79	42,988
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.42	5.65	19.7	18.8	0.05	0.79	41.1	41.9	0.73	6.01	6.74	_	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.01	3.74	41.7	29.1	0.07	1.14	10.5	11.4	1.07	1.60	2.47	_	7,855	7,855	0.41	0.24	0.90	7,937
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.37	0.68	7.60	5.30	0.01	0.21	1.91	2.09	0.20	0.29	0.45	_	1,301	1,301	0.07	0.04	0.15	1,314

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

				J, J		· , - · · ·	(· J ,	. ,								
Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	2.07	1.72	17.2	15.4	0.05	0.68	34.9	35.6	0.63	5.35	5.98	_	6,086	6,086	0.17	0.43	5.96	6,223
2028	10.9	21.7	227	163	0.39	6.09	37.3	43.3	5.75	4.02	9.77	_	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
2027	2.05	1.71	17.5	15.1	0.05	0.68	34.9	35.6	0.63	5.35	5.98	_	6,050	6,050	0.17	0.44	0.15	6,185
2028	2.42	5.65	19.7	18.8	0.05	0.79	41.1	41.9	0.73	6.01	6.74	_	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.62	0.51	5.21	4.52	0.01	0.20	10.5	10.7	0.19	1.60	1.79	_	1,813	1,813	0.05	0.13	0.77	1,855
2028	2.01	3.74	41.7	29.1	0.07	1.14	10.3	11.4	1.07	1.40	2.47	_	7,855	7,855	0.41	0.24	0.90	7,937
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.11	0.09	0.95	0.82	< 0.005	0.04	1.91	1.95	0.03	0.29	0.33	_	300	300	0.01	0.02	0.13	307
2028	0.37	0.68	7.60	5.30	0.01	0.21	1.88	2.09	0.20	0.25	0.45	_	1,301	1,301	0.07	0.04	0.15	1,314

2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768

Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7

Waste	_	_	_		-	_	_	_	_	_	-	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	_	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Waste	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.55	13.7	13.2	0.03	0.64	_	0.64	0.59	_	0.59	_	3,197	3,197	0.13	0.03	_	3,208
Dust From Material Movemen	<u>—</u>	_	_	_	_	_	4.45	4.45	_	2.14	2.14	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.55	13.7	13.2	0.03	0.64	_	0.64	0.59	_	0.59	_	3,197	3,197	0.13	0.03	_	3,208
Dust From Material Movemen	<u>—</u>	_	_	_	_	_	4.45	4.45	_	2.14	2.14	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.47	4.10	3.95	0.01	0.19	_	0.19	0.18	_	0.18	_	957	957	0.04	0.01	_	960

Dust From	_	_	_	_	_	_	1.33	1.33	_	0.64	0.64	_	_	_	_	_	_	_
Material Movemen	i.																	
Demolitio n	_	_	_	_	_	_	0.04	0.04	_	0.01	0.01	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.08	0.75	0.72	< 0.005	0.03	_	0.03	0.03	_	0.03	_	158	158	0.01	< 0.005	_	159
Dust From Material Movemen	<u> </u>	_	_	_	_	-	0.24	0.24	_	0.12	0.12	_	-	_	_	_	_	_
Demolitio n	_	_	_	-	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		1.62	13.7	13.3	0.03	0.67	_	0.67	0.62	_	0.62	_	3,196	3,196	0.13	0.03	_	3,207
Dust From Material Movemen		_	_	_	_	_	4.45	4.45	_	2.14	2.14	-	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipmen		0.29	2.41	2.35	0.01	0.12	_	0.12	0.11	_	0.11	_	563	563	0.02	< 0.005	_	565
Dust From Material Movemen:	_	_	_	_	_	_	0.78	0.78	_	0.38	0.38	_	-	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	_	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_
Off-Road Equipmen		0.05	0.44	0.43	< 0.005	0.02	_	0.02	0.02	_	0.02	_	93.2	93.2	< 0.005	< 0.005	_	93.5
Dust From Material Movemen:		_	_	_	_	_	0.14	0.14	_	0.07	0.07	_	-	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	_	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	-	_	_	_	_	_	_	_	-	_	_	_
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6

Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.19	1.86	2.79	< 0.005	0.07	_	0.07	0.06	_	0.06	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.19	1.86	2.79	< 0.005	0.07	_	0.07	0.06	_	0.06	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_			_		_	_	_	_	_	_		_	_	_
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5

				_														
Average Daily		_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.22	0.34	< 0.005	0.01	_	0.01	0.01	_	0.01	_	50.3	50.3	< 0.005	< 0.005	_	50.4
Architect ural Coatings	_	0.44	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.04	0.06	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	8.32	8.32	< 0.005	< 0.005	_	8.35
Architect ural Coatings	_	0.08	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	_	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7

Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		2.05	17.2	20.2	0.05	0.69	_	0.69	0.64	_	0.64	_	5,475	5,475	0.22	0.04	_	5,494
Paving	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	_	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.12	1.04	1.21	< 0.005	0.04	_	0.04	0.04	_	0.04	_	330	330	0.01	< 0.005	_	331
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	_	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	_	_	_	_	_	_	_	-	_	_	_	-	_	_	_	_	_	_

Off-Road Equipmen		0.02	0.19	0.22	< 0.005	0.01	_	0.01	0.01	_	0.01	_	54.6	54.6	< 0.005	< 0.005	_	54.8
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	_	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

Ontona	· onatan	(15/44)	, ioi aan	y,, y.	ioi aiiiio	iai, aria	01100 (1	or aay ioi	adily, iv	, y	ariridaij							
Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		15.4	204	134	0.32	5.28	_	5.28	5.00	_	5.00	_	32,601	32,601	1.98	0.56	_	32,817
Dust From Material Movemen	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	-	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	_	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		2.79	36.8	24.2	0.06	0.96	_	0.96	0.90	_	0.90	_	5,895	5,895	0.36	0.10	_	5,934
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.51	6.72	4.42	0.01	0.17	_	0.17	0.17	_	0.17	_	976	976	0.06	0.02	_	982
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	_	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Annual	_	_	_	-	_	_	_	_	_	_	_	-	_	_	_	_	_	-
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

		its (lb/da																
Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56
Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

		110 (10, 00	,	.,, , .		aai, aiia	000	,		, ,	ar ii raai,							
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)		_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	-	81.5
Parking Lot	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

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

Source	TOG	ROG		СО		PM10E			PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_		_	_	_	_		_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer																		
(Max)																		

Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	-	0.00
General Office Building	_	_	_	_	_	_	_	_	_		_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	-	_	-	-	_	-	_	_	-	_	0.00	0.00	0.00	0.00	0.00	-	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	-	_	_	_	_	_	_	-	-	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Parking Lot	_	-	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	-	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	-	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	-	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	-	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land	TOG	ROG	NOx	СО	SO2	PM10E			PM2.5E				NBCO2	CO2T	CH4	N2O	R	CO2e
Use			, i.ox			1 11102	1		2.02	2.05		3002	1.5552			1.23		0020
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	-	_	_	-	_	_	_	_	_	_	_	_	-	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt						PM10E				PM2.5D		BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

		10 (1.07 0.01)	,	<i>y</i> , <i>y</i> .				-, ,	J ,		, ,							
Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

O I I I C I I C		. (,	J, J-			(J ,		, ,							
Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	<u> </u>	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	<u> </u>
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Cillena	Poliulari	is (ib/ua	y ioi uaii	y, ton/yr		iai) aliu												
Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Sequest	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	_
Structures Work	Building Construction	3/1/2028	5/1/2028	5.00	44.0	_
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	_
Track & Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Average	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Average	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	5.00	50.0	0.42

Site Work: Grading and Earthwork	Tractors/Loaders/Backh	Diesel	Average	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Average	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Average	1.00	5.00	160	0.43
Structures Work	Other Construction Equipment	Diesel	Average	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Average	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Average	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Average	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Average	1.00	8.00	275	0.38
Roadway Work	Paving Equipment	Diesel	Average	1.00	6.00	630	0.36
Roadway Work	Pavers	Diesel	Average	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Average	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	160	0.42
Track & Signal Work	Rubber Tired Loaders	Diesel	Average	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backh oes	Diesel	Average	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	6.00	6.00	75.0	0.42

Track & Signal Work	Other Construction Equipment	Diesel	Average	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Average	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Average	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	6.00	225	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	8.00	6.00	100	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	8.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Average	1.00	4.00	300	0.45

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	_	_	_	_
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2

Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Structures Work	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Debris)	Ph	hase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)		Material Demolished (Ton of Debris)	Acres Paved (acres)
---------	----	-----------	---------------------------------	---------------------------------	--	-------------------------------------	---------------------

Site Work: Grading and Earthwork	12,783	27,225	109	1,000	_
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track & Signal Work	11,690	_	3.20	0.00	_

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084

Dorkin	00104	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parkir	na Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	.9	****							

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Other Non-Asphalt Surfaces	0.00	0.00
General Office Building	1,421,870	7,000
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	_
General Office Building	25.0	_
Parking Lot	0.00	_

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Equipinont Typo	I doi Typo	Engino noi	rturnoor por Buy	riodic r or Day	rioroopowor	Loud I doto!

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Appual Heat Input (MMRtu/yr)
Equipment Type	i dei type	Nullibel	Doller Rating (MIMDIG/III)	Daily Heat Input (Wilviblu/day)	Annual Fleat Input (MiMbtu/yi)

5.17. User Defined

Equipment Type	Fuel Type
_	_

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

regulation Land ode Type Tregulation Con Type Time The Time The Control of Time The Co	Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Biomass cover type	miliar / Cros	i ilai /tolos

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
2.1 21 2	1 11		

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.		
Indicator	Result for Project Census Tract	
Exposure Indicators	_	
AQ-Ozone	65.4	
AQ-PM	16.4	
AQ-DPM	62.4	
Drinking Water	0.54	
Lead Risk Housing	38.6	
Pesticides	0.00	
Toxic Releases	14.7	
Traffic	80.2	
Effect Indicators	_	
CleanUp Sites	62.4	
Groundwater	86.7	
Haz Waste Facilities/Generators	52.6	
Impaired Water Bodies	72.2	
Solid Waste	94.1	
Sensitive Population	_	
Asthma	46.2	
Cardio-vascular	83.6	
Low Birth Weights	28.8	
Socioeconomic Factor Indicators		
Education	11.4	
Housing	69.2	
Linguistic	0.92	
Poverty	42.6	

Unemployment	64.5

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier co- Indicator	Result for Project Census Tract
Economic	
Above Poverty	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	_
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	
Auto Access	87.47593995
Active commuting	52.35467727
Social	_
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	_
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	_
Homeownership	54.45912999

Housing habitability	70.61465418
	80.17451559
Low-inc homeowner severe housing cost burden	
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	_
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	_
Binge Drinking	7.5
Current Smoker	49.4

No Leisure Time for Physical Activity	72.6
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	_
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	_
Hardship	35.6
Other Decision Support	_
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Based on data from EPA and Port of Long Beach.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover - Max Daily Mit Detailed Report

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 - 5.3. Construction Vehicles

- 5.3.1. Unmitigated
- 5.3.2. Mitigated
- 5.4. Vehicles
 - 5.4.1. Construction Vehicle Control Strategies
- 5.5. Architectural Coatings
- 5.6. Dust Mitigation
 - 5.6.1. Construction Earthmoving Activities
 - 5.6.2. Construction Earthmoving Control Strategies
- 5.7. Construction Paving
- 5.8. Construction Electricity Consumption and Emissions Factors
- 5.9. Operational Mobile Sources
 - 5.9.1. Unmitigated
 - 5.9.2. Mitigated
- 5.10. Operational Area Sources
 - 5.10.1. Hearths
 - 5.10.1.1. Unmitigated
 - 5.10.1.2. Mitigated

- 5.10.2. Architectural Coatings
- 5.10.3. Landscape Equipment
- 5.10.4. Landscape Equipment Mitigated
- 5.11. Operational Energy Consumption
 - 5.11.1. Unmitigated
 - 5.11.2. Mitigated
- 5.12. Operational Water and Wastewater Consumption
 - 5.12.1. Unmitigated
 - 5.12.2. Mitigated
- 5.13. Operational Waste Generation
 - 5.13.1. Unmitigated
 - 5.13.2. Mitigated
- 5.14. Operational Refrigeration and Air Conditioning Equipment
 - 5.14.1. Unmitigated
 - 5.14.2. Mitigated
- 5.15. Operational Off-Road Equipment
 - 5.15.1. Unmitigated

- 5.15.2. Mitigated
- 5.16. Stationary Sources
 - 5.16.1. Emergency Generators and Fire Pumps
 - 5.16.2. Process Boilers
- 5.17. User Defined
- 5.18. Vegetation
 - 5.18.1. Land Use Change
 - 5.18.1.1. Unmitigated
 - 5.18.1.2. Mitigated
 - 5.18.1. Biomass Cover Type
 - 5.18.1.1. Unmitigated
 - 5.18.1.2. Mitigated
 - 5.18.2. Sequestration
 - 5.18.2.1. Unmitigated
 - 5.18.2.2. Mitigated
- 6. Climate Risk Detailed Report
 - 6.1. Climate Risk Summary

- 6.2. Initial Climate Risk Scores
- 6.3. Adjusted Climate Risk Scores
- 6.4. Climate Risk Reduction Measures
- 7. Health and Equity Details
 - 7.1. CalEnviroScreen 4.0 Scores
 - 7.2. Healthy Places Index Scores
 - 7.3. Overall Health & Equity Scores
 - 7.4. Health & Equity Measures
 - 7.5. Evaluation Scorecard
 - 7.6. Health & Equity Custom Measures
- 8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover - Max Daily Mit
Construction Start Date	8/1/2027
Operational Year	2029
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75695399967785, -121.27424308615056
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq	Special Landscape	Population	Description
					ft)	Area (sq ft)		

Other Non-Asphalt Surfaces	9.20	Acre	9.20	0.00	0.00	_	_	_
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.00	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E		PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	2.65	8.93	47.8	197	0.39	0.96	37.3	38.2	0.96	5.35	5.45	_	42,609	42,609	2.27	1.05	8.79	42,988
Mit.	2.65	8.93	47.8	197	0.39	0.96	21.7	22.7	0.96	2.75	3.42	_	42,609	42,609	2.27	1.05	8.79	42,988
% Reduced	_	_	_	_	_	_	42%	41%	_	49%	37%	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.63	4.20	7.20	23.1	0.05	0.12	41.1	41.2	0.12	6.01	6.13	_	6,953	6,953	0.19	0.49	0.17	7,103
Mit.	0.63	4.20	7.20	23.1	0.05	0.12	22.9	23.0	0.12	3.16	3.28	_	6,953	6,953	0.19	0.49	0.17	7,103

% Reduced	_	_	_	_	_	_	44%	44%	_	47%	47%	_	_	_	_	_	_	_
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.47	1.39	9.19	34.8	0.07	0.18	10.5	10.5	0.18	1.60	1.63	_	7,855	7,855	0.41	0.24	0.90	7,937
Mit.	0.47	1.39	9.19	34.8	0.07	0.18	5.84	6.02	0.18	0.82	0.94	_	7,855	7,855	0.41	0.24	0.90	7,937
% Reduced	_	_	_	_	_	_	44%	43%	_	49%	42%	_	_	_	_	_	-	_
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.09	0.25	1.68	6.36	0.01	0.03	1.91	1.91	0.03	0.29	0.30	_	1,301	1,301	0.07	0.04	0.15	1,314
Mit.	0.09	0.25	1.68	6.36	0.01	0.03	1.07	1.10	0.03	0.15	0.17	_	1,301	1,301	0.07	0.04	0.15	1,314
% Reduced	_	_	_	_	-	-	44%	43%	_	49%	42%	-	_	_	_	_	-	_

2.2. Construction Emissions by Year, Unmitigated

Year	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E		PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.53	0.48	6.01	19.7	0.05	0.10	34.9	35.0	0.10	5.35	5.45	_	6,086	6,086	0.17	0.43	5.96	6,223
2028	2.65	8.93	47.8	197	0.39	0.96	37.3	38.2	0.96	4.02	4.97	_	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.52	0.47	6.30	19.4	0.05	0.10	34.9	35.0	0.10	5.35	5.45	_	6,050	6,050	0.17	0.44	0.15	6,185
2028	0.63	4.20	7.20	23.1	0.05	0.12	41.1	41.2	0.12	6.01	6.13	_	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

2027	0.16	0.14	1.86	5.80	0.01	0.03	10.5	10.5	0.03	1.60	1.63	_	1,813	1,813	0.05	0.13	0.77	1,855
2028	0.47	1.39	9.19	34.8	0.07	0.18	10.3	10.5	0.18	1.40	1.57	_	7,855	7,855	0.41	0.24	0.90	7,937
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.03	0.03	0.34	1.06	< 0.005	0.01	1.91	1.91	0.01	0.29	0.30	_	300	300	0.01	0.02	0.13	307
2028	0.09	0.25	1.68	6.36	0.01	0.03	1.88	1.91	0.03	0.25	0.29	_	1,301	1,301	0.07	0.04	0.15	1,314

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
2027	0.53	0.48	6.01	19.7	0.05	0.10	19.3	19.4	0.10	2.75	2.85	_	6,086	6,086	0.17	0.43	5.96	6,223
2028	2.65	8.93	47.8	197	0.39	0.96	21.7	22.7	0.96	2.47	3.42	_	42,609	42,609	2.27	1.05	8.79	42,988
Daily - Winter (Max)	-	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
2027	0.52	0.47	6.30	19.4	0.05	0.10	19.3	19.4	0.10	2.75	2.85	_	6,050	6,050	0.17	0.44	0.15	6,185
2028	0.63	4.20	7.20	23.1	0.05	0.12	22.9	23.0	0.12	3.16	3.28	_	6,953	6,953	0.19	0.49	0.17	7,103
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2027	0.16	0.14	1.86	5.80	0.01	0.03	5.77	5.80	0.03	0.82	0.85	_	1,813	1,813	0.05	0.13	0.77	1,855
2028	0.47	1.39	9.19	34.8	0.07	0.18	5.84	6.02	0.18	0.77	0.94	_	7,855	7,855	0.41	0.24	0.90	7,937
Annual	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_
2027	0.03	0.03	0.34	1.06	< 0.005	0.01	1.05	1.06	0.01	0.15	0.16	_	300	300	0.01	0.02	0.13	307
2028	0.09	0.25	1.68	6.36	0.01	0.03	1.07	1.10	0.03	0.14	0.17	_	1,301	1,301	0.07	0.04	0.15	1,314

2.4. Operations Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

2.5. Operations Emissions by Sector, Unmitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8

Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	_	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

Waste	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

2.6. Operations Emissions by Sector, Mitigated

Sector	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Area	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.42	0.63	0.44	2.62	0.01	0.02	0.42	0.44	0.02	0.11	0.13	16.2	744	760	1.67	0.03	1.21	812
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Area	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	<u> </u>	<u> </u>	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2

Refrig.	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	0.02	0.02
Stationar y	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.32	0.54	0.47	2.00	< 0.005	0.02	0.42	0.44	0.02	0.11	0.13	16.2	700	716	1.67	0.03	0.05	768
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.21	0.20	0.16	1.34	< 0.005	< 0.005	0.32	0.32	< 0.005	0.08	0.08	_	347	347	0.01	0.02	0.39	353
Area	0.03	0.27	< 0.005	0.17	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.71	0.71	< 0.005	< 0.005	_	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	229	229	0.02	< 0.005	_	230
Water	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Waste	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Stationar y	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.55	0.55	< 0.005	< 0.005	0.00	0.55
Total	0.25	0.48	0.24	1.57	< 0.005	0.01	0.32	0.33	0.01	0.08	0.09	16.2	582	598	1.67	0.03	0.41	648
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	37.9	37.9	< 0.005	< 0.005	_	38.1
Water	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Waste	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Stationar y	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	0.05	0.09	0.04	0.29	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	2.69	96.3	99.0	0.28	< 0.005	0.07	107

3. Construction Emissions Details

3.1. Grading (2027) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	_	0.06	_	3,197	3,197	0.13	0.03	_	3,208
Dust From Material Movemen	_	-	_	_	_	_	4.45	4.45	_	2.14	2.14	-	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	-
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	_	0.06	_	3,197	3,197	0.13	0.03	_	3,208
Dust From Material Movemen		-	_	-	_	_	4.45	4.45	_	2.14	2.14	_	_	-	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	-
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.09	0.74	5.23	0.01	0.02	_	0.02	0.02	_	0.02	_	957	957	0.04	0.01	_	960

Dust From	_	_	_	_	_	_	1.33	1.33	_	0.64	0.64	_	_	_	_	_	_	_
Material Movemen	:																	
Demolitio n	_	_	_	_	_	_	0.04	0.04	_	0.01	0.01	_	_	_	_	_	_	_
Onsite ruck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	8.80	8.80	< 0.005	0.88	0.88	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.14	0.95	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	158	158	0.01	< 0.005	_	159
Dust From Material Movemen		_	_	_	_	_	0.24	0.24	_	0.12	0.12	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	1.61	1.61	< 0.005	0.16	0.16	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912

Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8

3.2. Grading (2027) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	_	0.06	_	3,197	3,197	0.13	0.03	_	3,208
Dust From Material Movemen	<u> </u>	_	_	_	_	_	1.73	1.73	_	0.84	0.84	_	_	_	_	_	_	_
Demolitio n	_	_	-	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.23	0.10	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	_	85.3	85.3	< 0.005	0.01	0.13	89.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Off-Road Equipmen		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	-	0.06	_	3,197	3,197	0.13	0.03	_	3,208

Dust From Material Movemen	 :			_		_	1.73	1.73	_	0.84	0.84				_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	_	85.6	85.6	< 0.005	0.01	< 0.005	89.7
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.09	0.74	5.23	0.01	0.02	_	0.02	0.02	_	0.02	_	957	957	0.04	0.01	_	960
Dust From Material Movement	<u> </u>	_	_	_	_	_	0.52	0.52	_	0.25	0.25	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.04	0.04	_	0.01	0.01	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	4.93	4.93	< 0.005	0.49	0.49	_	25.6	25.6	< 0.005	< 0.005	0.02	26.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.02	0.14	0.95	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	158	158	0.01	< 0.005	_	159
Dust From Material Movement		_	_	_	_	_	0.09	0.09	_	0.05	0.05	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.90	0.90	< 0.005	0.09	0.09	_	4.24	4.24	< 0.005	< 0.005	< 0.005	4.44
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_

Worker	0.10	0.09	0.06	1.39	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	322	322	< 0.005	< 0.005	0.97	324
Vendor	0.03	0.02	0.82	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	656	656	0.01	0.10	1.44	687
Hauling	0.08	0.05	2.42	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,824	1,824	0.03	0.29	3.42	1,914
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.09	0.08	0.08	1.00	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	285	285	0.01	0.01	0.03	288
Vendor	0.03	0.02	0.88	0.23	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	657	657	0.01	0.10	0.04	686
Hauling	0.07	0.04	2.61	0.54	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,825	1,825	0.03	0.29	0.09	1,912
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.03	0.02	0.02	0.31	0.00	0.00	0.09	0.09	0.00	0.02	0.02	_	87.6	87.6	< 0.005	< 0.005	0.12	88.7
Vendor	0.01	0.01	0.26	0.07	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	_	197	197	< 0.005	0.03	0.19	205
Hauling	0.02	0.01	0.76	0.16	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	_	546	546	0.01	0.09	0.44	573
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	14.5	14.5	< 0.005	< 0.005	0.02	14.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	32.5	32.5	< 0.005	< 0.005	0.03	34.0
Hauling	< 0.005	< 0.005	0.14	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	90.4	90.4	< 0.005	0.01	0.07	94.8

3.3. Grading (2028) - Unmitigated

Location	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipment		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	_	0.06	_	3,196	3,196	0.13	0.03	_	3,207
Dust From Material Movement	_	_	_	_	_	_	4.45	4.45	_	2.14	2.14	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	29.4	29.4	< 0.005	2.93	2.94	_	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.06	0.44	3.08	0.01	0.01	_	0.01	0.01	_	0.01	_	563	563	0.02	< 0.005	_	565
Dust From Material Movement	_	_	-	_	_	_	0.78	0.78	_	0.38	0.38	-	_	_	-	_	_	_
Demolitio n	_	_	_	_	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.18	5.18	< 0.005	0.52	0.52	_	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.01	0.08	0.56	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	93.2	93.2	< 0.005	< 0.005	_	93.5
Dust From Material Movement	_	_	_	_	_	_	0.14	0.14	_	0.07	0.07	-	_	_	_	_	_	_
Demolitio n	_	_	_	-	_	_	< 0.005	< 0.005	-	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.94	0.94	< 0.005	0.09	0.09	_	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	-	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.4. Grading (2028) - Mitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_
Off-Road Equipmen		0.32	2.49	17.5	0.03	0.06	_	0.06	0.06	_	0.06	_	3,196	3,196	0.13	0.03	_	3,207

Dust From Material Movemen	_			_	_	_	1.73	1.73	_	0.84	0.84		_		_	_	_	_
Demolitio n	_	_	_	_	_	_	0.13	0.13	_	0.02	0.02	_	_	_	_	_	_	_
Onsite truck	0.01	0.01	0.24	0.11	< 0.005	< 0.005	16.5	16.5	< 0.005	1.64	1.65	_	83.5	83.5	< 0.005	0.01	< 0.005	87.4
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Off-Road Equipmen		0.06	0.44	3.08	0.01	0.01	_	0.01	0.01	_	0.01	_	563	563	0.02	< 0.005	_	565
Dust From Material Movemen		_	_	_	_	_	0.31	0.31	_	0.15	0.15	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	0.02	0.02	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	2.90	2.90	< 0.005	0.29	0.29	_	14.7	14.7	< 0.005	< 0.005	0.01	15.4
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.08	0.56	< 0.005	< 0.005	_	< 0.005	< 0.005	-	< 0.005	_	93.2	93.2	< 0.005	< 0.005	_	93.5
Dust From Material Movemen		_	_	_	_	_	0.06	0.06	_	0.03	0.03	_	_	_	_	_	_	_
Demolitio n	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	-	-	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.53	0.53	< 0.005	0.05	0.05	-	2.43	2.43	< 0.005	< 0.005	< 0.005	2.55
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.08	0.08	0.07	0.95	0.00	0.00	0.30	0.30	0.00	0.07	0.07	_	279	279	0.01	0.01	0.02	282
Vendor	0.03	0.02	0.84	0.22	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	640	640	0.01	0.10	0.03	669
Hauling	0.07	0.04	2.51	0.53	0.01	0.03	0.47	0.51	0.03	0.13	0.16	_	1,777	1,777	0.03	0.28	0.08	1,860
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.17	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	50.5	50.5	< 0.005	< 0.005	0.07	50.6
Vendor	< 0.005	< 0.005	0.14	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	113	113	< 0.005	0.02	0.09	118
Hauling	0.01	0.01	0.43	0.09	< 0.005	0.01	0.08	0.09	0.01	0.02	0.03	_	313	313	< 0.005	0.05	0.24	328
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	8.35	8.35	< 0.005	< 0.005	0.01	8.39
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	18.6	18.6	< 0.005	< 0.005	0.02	19.5
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	51.8	51.8	< 0.005	0.01	0.04	54.3

3.5. Building Construction (2028) - Unmitigated

Location	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.04	0.54	2.94	< 0.005	0.01	_	0.01	0.01	_	0.01	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_
Off-Road Equipmen		0.04	0.54	2.94	< 0.005	0.01	_	0.01	0.01	_	0.01	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	5.88	5.88	< 0.005	0.59	0.59	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	_	_	_	_	_	_	_	_	_	_	-	-	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.07	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	50.3	50.3	< 0.005	< 0.005	_	50.4
Architect ural Coatings	_	0.44	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.71	0.71	< 0.005	0.07	0.07	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.06	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	8.32	8.32	< 0.005	< 0.005	_	8.35
Architect ural Coatings	_	0.08	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	-	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2028) - Mitigated

Location	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.04	0.54	2.94	< 0.005	0.01	_	0.01	0.01	_	0.01	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	_	16.6	16.6	< 0.005	< 0.005	0.02	17.5

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_
Off-Road Equipmen		0.04	0.54	2.94	< 0.005	0.01	_	0.01	0.01	_	0.01	_	417	417	0.02	< 0.005	_	418
Architect ural Coatings	_	3.61	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	3.29	3.29	< 0.005	0.33	0.33	_	16.7	16.7	< 0.005	< 0.005	< 0.005	17.5
Average Daily	_	_	_	_	_	_	_	_	_	_	-	-	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.07	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	50.3	50.3	< 0.005	< 0.005	_	50.4
Architect ural Coatings	_	0.44	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.40	0.40	< 0.005	0.04	0.04	_	2.01	2.01	< 0.005	< 0.005	< 0.005	2.11
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		< 0.005	0.01	0.06	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	8.32	8.32	< 0.005	< 0.005	_	8.35
Architect ural Coatings	_	0.08	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.07	0.07	< 0.005	0.01	0.01	-	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Worker	0.08	0.07	0.04	1.05	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	252	252	< 0.005	< 0.005	0.68	254
Vendor	0.01	0.01	0.39	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.62	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.07	0.06	0.05	0.76	0.00	0.00	0.24	0.24	0.00	0.06	0.06	_	223	223	< 0.005	0.01	0.02	226
Vendor	0.01	0.01	0.42	0.11	< 0.005	< 0.005	0.09	0.09	< 0.005	0.02	0.03	_	320	320	< 0.005	0.05	0.02	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	27.6	27.6	< 0.005	< 0.005	0.04	27.7
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	38.5	38.5	< 0.005	0.01	0.03	40.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	_	4.57	4.57	< 0.005	< 0.005	0.01	4.59
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	6.38	6.38	< 0.005	< 0.005	0.01	6.68
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2028) - Unmitigated

Location	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.52	2.70	29.6	0.05	0.10	_	0.10	0.10	_	0.10	_	5,475	5,475	0.22	0.04	_	5,494
Paving	_	0.01	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	<u> </u>	_	<u> </u>	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	17.6	17.6	< 0.005	1.76	1.76	_	49.9	49.9	< 0.005	0.01	0.07	52.4

Daily, – Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average – Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road 0 Equipment		0.03	0.16	1.79	< 0.005	0.01	_	0.01	0.01	-	0.01	-	330	330	0.01	< 0.005	_	331
Paving -	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite <	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.06	1.06	< 0.005	0.11	0.11	_	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual –	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road 0 Equipment		0.01	0.03	0.33	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	54.6	54.6	< 0.005	< 0.005	_	54.8
Paving -	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite <	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.19	0.19	< 0.005	0.02	0.02	_	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite -	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, – Summer (Max)	_	_	_	_	-	-	_	_	_	_	-	-	_	-	_	_	_	_
Worker 0	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor 0	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, – Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average - Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker 0	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor <	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
vendoi																		
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Paving (2028) - Mitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Off-Road Equipmen		0.52	2.70	29.6	0.05	0.10	_	0.10	0.10	_	0.10	_	5,475	5,475	0.22	0.04	_	5,494
Paving	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	9.88	9.88	< 0.005	0.99	0.99	_	49.9	49.9	< 0.005	0.01	0.07	52.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.03	0.16	1.79	< 0.005	0.01	_	0.01	0.01	-	0.01	_	330	330	0.01	< 0.005	_	331
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	_	3.01	3.01	< 0.005	< 0.005	< 0.005	3.16
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.01	0.03	0.33	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	54.6	54.6	< 0.005	< 0.005	_	54.8
Paving	_	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	_	0.50	0.50	< 0.005	< 0.005	< 0.005	0.52
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.12	0.11	0.07	1.58	0.00	0.00	0.36	0.36	0.00	0.09	0.09	_	379	379	< 0.005	< 0.005	1.03	381
Vendor	0.04	0.03	1.17	0.32	0.01	0.01	0.27	0.28	0.01	0.07	0.09	_	959	959	0.01	0.15	1.87	1,004
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.07	0.00	0.00	0.02	0.02	0.00	0.01	0.01	_	20.7	20.7	< 0.005	< 0.005	0.03	20.8
Vendor	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	_	57.8	57.8	< 0.005	0.01	0.05	60.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.43	3.43	< 0.005	< 0.005	< 0.005	3.44
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	9.57	9.57	< 0.005	< 0.005	0.01	10.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Trenching (2028) - Unmitigated

Location	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	<u> </u>	<u> </u>	<u> </u>	_	<u> </u>	<u> </u>	_	_	_	_	_	_	_	_	<u> </u>	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_

Off-Road Equipmen		4.30	40.7	158	0.32	0.80	_	0.80	0.80	_	0.80	_	32,601	32,601	1.98	0.56	_	32,817
Dust From Material Movemen	_	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	-	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	11.8	11.8	< 0.005	1.17	1.17	_	33.3	33.3	< 0.005	0.01	0.05	34.9
Daily, Winter (Max)	_	-	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.78	7.36	28.7	0.06	0.14	_	0.14	0.14	_	0.14	-	5,895	5,895	0.36	0.10	_	5,934
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	2.13	2.13	< 0.005	0.21	0.21	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.14	1.34	5.23	0.01	0.03	_	0.03	0.03	_	0.03	_	976	976	0.06	0.02	_	982
Dust From Material Movemen	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14		631	631	0.01	< 0.005	1.71	634

Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

3.10. Trenching (2028) - Mitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		4.30	40.7	158	0.32	0.80	_	0.80	0.80	_	0.80	_	32,601	32,601	1.98	0.56	_	32,817
Dust From Material Movemen	<u> </u>	_	_	_	_	_	0.01	0.01	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	0.09	0.04	< 0.005	< 0.005	6.58	6.59	< 0.005	0.66	0.66	_	33.3	33.3	< 0.005	0.01	0.05	34.9

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
Off-Road Equipmen		0.78	7.36	28.7	0.06	0.14	_	0.14	0.14	_	0.14	_	5,895	5,895	0.36	0.10	_	5,934
Dust From Material Movemen:	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	-	_	_	_
Onsite truck	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	1.19	1.19	< 0.005	0.12	0.12	_	6.03	6.03	< 0.005	< 0.005	< 0.005	6.32
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.14	1.34	5.23	0.01	0.03	_	0.03	0.03	_	0.03	_	976	976	0.06	0.02	_	982
Dust From Material Movement	_	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	_	1.00	1.00	< 0.005	< 0.005	< 0.005	1.05
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.20	0.18	0.11	2.64	0.00	0.00	0.61	0.61	0.00	0.14	0.14	_	631	631	0.01	< 0.005	1.71	634
Vendor	0.03	0.02	0.78	0.21	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	_	639	639	0.01	0.10	1.25	670
Hauling	0.03	0.02	1.00	0.18	0.01	0.02	0.23	0.24	0.02	0.06	0.08	_	835	835	0.01	0.13	1.49	876
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	104	104	< 0.005	< 0.005	0.13	104
Vendor	< 0.005	< 0.005	0.15	0.04	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	_	116	116	< 0.005	0.02	0.10	121
Hauling	0.01	< 0.005	0.19	0.03	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	151	151	< 0.005	0.02	0.12	158
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	17.2	17.2	< 0.005	< 0.005	0.02	17.2
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	19.1	19.1	< 0.005	< 0.005	0.02	20.0
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	25.0	25.0	< 0.005	< 0.005	0.02	26.2

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E		PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Other Non-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Annual	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5

4.1.2. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.31	0.29	0.20	2.09	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	492	492	0.02	0.02	1.19	500
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.28	0.26	0.23	1.81	< 0.005	< 0.005	0.42	0.42	< 0.005	0.11	0.11	_	450	450	0.02	0.02	0.03	458
Annual	_	_	-	-	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Other Non-Asph Surfaces		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00
Total	0.04	0.04	0.03	0.24	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.02	_	57.5	57.5	< 0.005	< 0.005	0.06	58.5

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Land	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Use																		

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	-	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	-	-	_	_	_	_	_	_	_	-	3.38	3.38	< 0.005	< 0.005	-	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	-	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56
Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.2. Electricity Emissions By Land Use - Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	-	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	144	144	0.01	< 0.005	_	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Daily, Winter (Max)	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	-	_	_	_	_	_	_	_	144	144	0.01	< 0.005	-	145
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	3.38	3.38	< 0.005	< 0.005	_	3.40
Total	_	_	_	_	_	_	_	_	_	_	_	_	148	148	0.02	< 0.005	_	149
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	23.9	23.9	< 0.005	< 0.005	_	24.1
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	_	0.56	0.56	< 0.005	< 0.005	_	0.56
Total	_	_	_	_	_	_	_	_	_	_	_	_	24.5	24.5	< 0.005	< 0.005	_	24.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

		110 (10, 00	,	.,, , .		aai, aiia	000	,		, ,	ar ii raai,							
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)		_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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

Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Land	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T		PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Use	100	INOG	INOX		302	INTOL	INTOD	I WITOI	I WIZ.JL	I WZ.JD	1 1012.51	0002	NBCOZ	0021	0114	INZU		0026
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01	_	81.2	81.2	0.01	< 0.005	_	81.5
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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

	0.04	0.005	0.07	0.00	0.005	0.04		0.04	0.04		0.04		04.0	04.0	0.04	0.005		04.5
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01		0.01		81.2	81.2	0.01	< 0.005		81.5
Parking Lot	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
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	_	0.01	0.01	_	0.01		81.2	81.2	0.01	< 0.005	_	81.5
Annual	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	0.00 alt	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
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5
Parking Lot	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
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	13.4	13.4	< 0.005	< 0.005	_	13.5

4.3. Area Emissions by Source

4.3.2. Unmitigated

Source	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products		0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings		0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Landsca pe Equipme	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	-	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.3.1. Mitigated

Source	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer																		
(Max)																		

Consum er	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Landsca pe Equipme nt	0.06	0.06	< 0.005	0.35	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Total	0.06	0.30	< 0.005	0.35	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.43	1.43	< 0.005	< 0.005	_	1.44
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Consum er Products	_	0.20	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	0.25	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consum er Products	_	0.04	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architect ural Coatings	_	0.01	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landsca pe Equipme nt	0.01	0.01	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12
Total	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.12	0.12	< 0.005	< 0.005	_	0.12

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	-	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	-	_	_	_	_	-	_	_	_	_	_	-	-
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

General Office Building	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.4.1. Mitigated

Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Parking Lot		_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_		_	_	2.72	3.95	6.68	0.28	0.01		15.7
Parking Lot	_	_	_	_	_	_				_	_	0.00	0.00	0.00	0.00	0.00	_	0.00

Total	_	_	_		_	_	_	_	_	_	_	2.72	3.95	6.68	0.28	0.01	_	15.7
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces		_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	0.45	0.65	1.11	0.05	< 0.005	_	2.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

		ito (ib/ua																
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	-	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Aspha Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.5.1. Mitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2

Parking	_	_			_			_		_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Lot												0.00	0.00	0.00	0.00	0.00		0.00
Total	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	-	_	_	_	_	_	_	_	13.5	0.00	13.5	1.35	0.00	_	47.2
Annual	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Other Non-Asph Surfaces	— alt	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
General Office Building	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82
Parking Lot	_	_	_	_	_	_	_	_	_	_	_	0.00	0.00	0.00	0.00	0.00	_	0.00
Total	_	_	_	_	_	_	_	_	_	_	_	2.23	0.00	2.23	0.22	0.00	_	7.82

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Use																		

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005

4.6.2. Mitigated

Land Use	TOG	ROG	NOx	СО		PM10E			PM2.5E			BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.02	0.02
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Office Building	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	< 0.005	< 0.005
Total	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.7.2. Mitigated

Equipme nt	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	<u> </u>	<u> </u>	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Equipme nt Type	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Emergen cy Generato	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.8.2. Mitigated

Equipme nt	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Туре																		
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r		0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Total	0.04	0.03	0.17	0.13	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	16.8	16.8	< 0.005	< 0.005	0.00	16.8
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Emergen cy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	0.09	0.09	< 0.005	< 0.005	0.00	0.09

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme nt Type	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.9.2. Mitigated

Equipme nt	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Type Daily,	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Summer (Max)																		
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio n		ROG		СО						PM2.5D		BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	<u> </u>	_	_	_	<u> </u>	_	_	<u> </u>	_	<u> </u>	_	_	_	<u> </u>	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_	_

Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Remove	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_
Subtotal	_	_	_	_	_	_	<u> </u>	_	_	_	_	_		_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

				, ·														
Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

		(<i>J</i> ,		adij dira												
Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	<u> </u>	_	<u> </u>	_	_	_	_	_	<u> </u>	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_		_	_	_	_	_	_	_	_	<u> </u>	_	_	<u> </u>	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Work: Grading and Earthwork	Grading	8/1/2027	3/30/2028	5.00	174	_

Structures Work	Building Construction	3/1/2028	5/1/2028	5.00	44.0	_
Roadway Work	Paving	5/1/2028	5/30/2028	5.00	22.0	_
Track & Signal Work	Trenching	5/1/2028	7/31/2028	5.00	66.0	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	160	0.43
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	50.0	0.42
Site Work: Grading and Earthwork	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	8.00	275	0.38

Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	6.00	630	0.36
Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	300	0.45
Track & Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Tier 4 Final	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	225	0.42

Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	100	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	75.0	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	5.00	275	0.38
Site Work: Grading and Earthwork	Graders	Diesel	Tier 4 Final	1.00	5.00	190	0.41
Site Work: Grading and Earthwork	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	5.00	250	0.40
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	160	0.43
Site Work: Grading and Earthwork	Other Construction Equipment	Diesel	Tier 4 Final	1.00	5.00	50.0	0.42
Site Work: Grading and Earthwork	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	6.00	86.0	0.37
Site Work: Grading and Earthwork	Excavators	Diesel	Tier 4 Final	1.00	6.00	275	0.38
Site Work: Grading and Earthwork	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	6.00	80.0	0.42
Structures Work	Welders	Diesel	Tier 4 Final	1.00	3.00	46.0	0.45
Structures Work	Rough Terrain Forklifts	Diesel	Tier 4 Final	1.00	3.00	75.0	0.40
Roadway Work	Graders	Diesel	Tier 4 Final	1.00	8.00	190	0.41
Roadway Work	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	250	0.40
Roadway Work	Excavators	Diesel	Tier 4 Final	1.00	8.00	275	0.38
Roadway Work	Paving Equipment	Diesel	Tier 4 Final	1.00	6.00	630	0.36

Roadway Work	Pavers	Diesel	Tier 4 Final	1.00	8.00	170	0.42
Roadway Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	8.00	150	0.43
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	250	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	1.00	4.00	300	0.45
Track & Signal Work	Rubber Tired Loaders	Diesel	Tier 4 Final	1.00	4.00	250	0.36
Track & Signal Work	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	4.00	86.0	0.37
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	4.00	4,400	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	6.00	6.00	75.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	200	0.42
Track & Signal Work	Cranes	Diesel	Tier 4 Final	4.00	6.00	130	0.29
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	4.00	6.00	10.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	350	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	160	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	84.0	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	2.00	6.00	225	0.42
Track & Signal Work	Other Construction Equipment	Diesel	Tier 4 Final	8.00	6.00	100	0.42

Tra	ack & Signal Work	Other Construction	Diesel	Tier 4 Final	8.00	6.00	75.0	0.42
		Equipment						

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	_	_	_	_
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Work: Grading and Earthwork	_	_	_	_
Site Work: Grading and Earthwork	Worker	30.0	14.3	LDA,LDT1,LDT2
Site Work: Grading and Earthwork	Vendor	24.0	8.80	HHDT,MHDT
Site Work: Grading and Earthwork	Hauling	34.0	15.0	HHDT
Site Work: Grading and Earthwork	Onsite truck	10.0	2.00	HHDT
Structures Work	_	_	_	_
Structures Work	Worker	24.0	14.3	LDA,LDT1,LDT2
Structures Work	Vendor	12.0	8.80	HHDT,MHDT
Structures Work	Hauling	0.00	20.0	HHDT
Structures Work	Onsite truck	2.00	2.00	HHDT
Roadway Work	_	_	_	_
Roadway Work	Worker	36.0	14.3	LDA,LDT1,LDT2
Roadway Work	Vendor	36.0	8.80	HHDT,MHDT
Roadway Work	Hauling	0.00	20.0	HHDT
Roadway Work	Onsite truck	6.00	2.00	HHDT
Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	60.0	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	24.0	8.80	HHDT,MHDT
Track & Signal Work	Hauling	9.00	27.0	HHDT
Track & Signal Work	Onsite truck	4.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

P	Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
S	Structures Work	0.00	0.00	12,000	4,000	24,306

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)		Material Demolished (Ton of Debris)	Acres Paved (acres)
Site Work: Grading and Earthwork	12,783	27,225	109	1,000	_
Roadway Work	0.00	0.00	0.00	0.00	2.50
Track & Signal Work	11,690	_	3.20	0.00	_

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	2.40	0%
General Office Building	0.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CHA	N2O
Year	rkyvn ber year		(;H4	INZO
Tour	I KVVII poi Toui	002	OI I T	I LEO

2027	300	528	0.03	< 0.005
2028	300	528	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General Office Building	77.9	17.7	5.60	21,529	590	134	42.4	163,084
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	12,000	4,000	24,306

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00
General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Other Non-Asphalt Surfaces	0.00	323	0.0330	0.0040	0.00

General Office Building	163,088	323	0.0330	0.0040	253,451
Parking Lot	3,816	323	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
Other Non-Asphalt Surfaces	0.00	0.00	
General Office Building	1,421,870	7,000	
Parking Lot	0.00	0.00	

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
Other Non-Asphalt Surfaces	0.00	0.00	
General Office Building	1,421,870	7,000	
Parking Lot	0.00	0.00	

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	_
General Office Building	25.0	_
Parking Lot	0.00	_

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)	
Other Non-Asphalt Surfaces	0.00	_	
General Office Building	25.0	_	
Parking Lot	0.00	_	

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
		The state of the s				

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
	**			, and the second		

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	0.50	6.00	40.0	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Appual Heat Input (MMRtu/yr)
Equipment Type	r der Type	Number	Doller Kating (MMDtu/III)	Daily Fleat Input (MiMblu/day)	Annual Fleat Input (MMDtu/yl)

5.17. User Defined

Equipment Type	Fuel Type
_	_

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
Vogotation Lana Coo Typo	rogotation con Typo	Titilai 7 to 100	1 11101 7 10100

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
71	J 3		

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type Initial Acres Final Acres

5.18.1.2. Mitigated

Biomass Cover Type Initial Acres Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type Number Electricity Saved (kWh/year) Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type Number Electricity Saved (kWh/year) Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about 3/4 an inch of rain, which would be light to moderate rainfall if received over a full

day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2

Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	_
AQ-Ozone	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	_
CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6

Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	_
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	_
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6
Unemployment	64.5

7.2. Healthy Places Index Scores

Indicator	Result for Project Census Tract
Economic	
Above Poverty	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	
Auto Access	87.47593995
Active commuting	52.35467727

Social	_
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	_
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	_
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4

Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	_
Binge Drinking	7.5
Current Smoker	49.4
No Leisure Time for Physical Activity	72.6
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	_
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	_
Hardship	35.6
Other Decision Support	_

2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Based on applicant-provided data.
Construction: Construction Phases	Based on applicant-provided data.
Construction: Off-Road Equipment	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Based on data from EPA and Port of Long Beach.
Construction: Dust From Material Movement	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Construction: Trips and VMT	Based on applicant-provided data.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Electricity	Based on applicant-provided data.
Operations: Water and Waste Water	Outdoor water use rate based on applicant-provided data.
Operations: Solid Waste	Solid waste generation rate based on applicant-provided data.

Roseville Layover Off-Site Locomotive - Construction Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Off-Site Locomotive - Construction
Construction Start Date	8/1/2027
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75690813656374, -121.27417374770475
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_

Other Non-Asphalt Surfaces	9.20	Acre	9.20	9.50	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.10	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	22.3	367	149	0.41	6.52	0.00	6.52	6.36	0.00	6.36	_	39,845	39,845	3.26	1.06	0.00	40,242
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	0.24	4.02	1.63	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	_	437	437	0.04	0.01	0.00	441
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	0.04	0.73	0.30	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	72.3	72.3	0.01	< 0.005	0.00	73.0

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily -	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_		_
Summer (Max)																		
(IVIAX)																		

2028	0.00	22.3	367	149	0.41	6.52	0.00	6.52	6.36	0.00	6.36	_	39,845	39,845	3.26	1.06	0.00	40,242
Daily - Winter (Max)	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	0.24	4.02	1.63	< 0.005	0.07	0.00	0.07	0.07	0.00	0.07	_	437	437	0.04	0.01	0.00	441
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_
2028	0.00	0.04	0.73	0.30	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	72.3	72.3	0.01	< 0.005	0.00	73.0

3. Construction Emissions Details

3.1. Trenching (2028) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

						iai) and												
Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		22.3	367	149	0.41	6.52	_	6.52	6.36	_	6.36	_	39,845	39,845	3.26	1.06	_	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.24	4.02	1.63	< 0.005	0.07	_	0.07	0.07	_	0.07	_	437	437	0.04	0.01	_	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

Annual	_	_	_		_	_		_	_	_	_	_	_	_	_	_	_	-
Off-Road Equipmen		0.04	0.73	0.30	< 0.005	0.01	_	0.01	0.01	_	0.01	_	72.3	72.3	0.01	< 0.005	_	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

			,	· j, · · · · · · j ·		, ,	'		· J,	. ,								
Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

				, ,			<u> </u>		J /									
Land Use	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Remove	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_
Subtotal	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Track & Signal Work	Trenching	5/1/2028	5/4/2028	5.00	4.00	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated	Residential Exterior Area Coated	Non-Residential Interior Area	Non-Residential Exterior Area	Parking Area Coated (sq ft)
	(sq ft)	(sq ft)	Coated (sq ft)	Coated (sq ft)	

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
	1, 2, 2, 4, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,	1 (-77			

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	2.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	0.00	0.00	0.00

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type Vegetation Soil Type Initial Acres Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type Initial Acres Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type Number Electricity Saved (kWh/year) Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3

Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	_
AQ-Ozone	65.4
AQ-PM	16.4
AQ-DPM	62.4
Drinking Water	0.54
Lead Risk Housing	38.6
Pesticides	0.00
Toxic Releases	14.7
Traffic	80.2
Effect Indicators	_

CleanUp Sites	62.4
Groundwater	86.7
Haz Waste Facilities/Generators	52.6
Impaired Water Bodies	72.2
Solid Waste	94.1
Sensitive Population	_
Asthma	46.2
Cardio-vascular	83.6
Low Birth Weights	28.8
Socioeconomic Factor Indicators	_
Education	11.4
Housing	69.2
Linguistic	0.92
Poverty	42.6
Unemployment	64.5

7.2. Healthy Places Index Scores

Indicator	Result for Project Census Tract
Economic	_
Above Poverty	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	_
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505

Transportation	_
Auto Access	87.47593995
Active commuting	52.35467727
Social	_
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	_
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712
Housing	_
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	_
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8

82.1
45.6
62.4
24.6
32.5
56.0
79.8
54.0
44.6
66.1
70.4
_
7.5
49.4
72.6
_
0.0
0.0
73.7
47.3
70.8
4.8
85.4
_
78.6
75.9
49.4

Other Indices	_
Hardship	35.6
Other Decision Support	_
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract		
CalEnviroScreen 4.0 Score for Project Location (a)	54.0		
Healthy Places Index Score for Project Location (b)	59.0		
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No		
Project Located in a Low-Income Community (Assembly Bill 1550)	No		
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No		

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification		
Construction: Construction Phases	Construction schedule provided by project applicant. Run only includes off-site locomotive operation.		
Construction: Off-Road Equipment	Construction equipment list provided by project applicant.		
Land Use	Based on applicant-provided data.		

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Operations: Water and Waste Water	Based on applicant-provided data.
Operations: Solid Waste	Based on applicant-provided data.
Operations: Energy Use	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Run only includes off-site locomotive operation.
Construction: Electricity	Run only includes off-site locomotive operation.
Construction: Dust From Material Movement	Run only includes off-site locomotive operation.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 3 locomotive.
Construction: On-Road Fugitive Dust	Run only includes off-site locomotive operation.

Roseville Layover Off-Site Locomotive - Construction Mitigated Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Roseville Layover Off-Site Locomotive - Construction Mitigated
Construction Start Date	8/1/2027
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	0.60
Location	38.75690813656374, -121.27417374770475
County	Placer-Sacramento
City	Roseville
Air District	Placer County APCD
Air Basin	Sacramento Valley
TAZ	443
EDFZ	15
Electric Utility	Roseville Electric
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	8.00	1000sqft	0.20	8,000	0.00	_	_	_

Other Non-Asphalt Surfaces	9.20	Acre	9.20	9.50	0.00	_	_	_
Parking Lot	4.00	1000sqft	0.10	0.10	0.00	_	_	_

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Un/Mit.	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	_	39,845	39,845	3.26	1.06	0.00	40,242
Mit.	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	_	39,845	39,845	3.26	1.06	0.00	40,242
% Reduced	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily (Max)	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	437	437	0.04	0.01	0.00	441
Mit.	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	437	437	0.04	0.01	0.00	441
% Reduced	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_	_		_

Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	_	72.3	72.3	0.01	< 0.005	0.00	73.0
Mit.	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	_	72.3	72.3	0.01	< 0.005	0.00	73.0
% Reduced	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	_	39,845	39,845	3.26	1.06	0.00	40,242
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	437	437	0.04	0.01	0.00	441
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	_	72.3	72.3	0.01	< 0.005	0.00	73.0

2.3. Construction Emissions by Year, Mitigated

Year	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	6.84	81.5	149	0.41	1.22	0.00	1.22	1.22	0.00	1.22	_	39,845	39,845	3.26	1.06	0.00	40,242

Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	0.08	0.89	1.63	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	_	437	437	0.04	0.01	0.00	441
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2028	0.00	0.01	0.16	0.30	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	_	72.3	72.3	0.01	< 0.005	0.00	73.0

3. Construction Emissions Details

3.1. Trenching (2028) - Unmitigated

Location	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		6.84	81.5	149	0.41	1.22	_	1.22	1.22	_	1.22	_	39,845	39,845	3.26	1.06	_	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipmen		0.08	0.89	1.63	< 0.005	0.01	_	0.01	0.01	_	0.01	_	437	437	0.04	0.01	_	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipmen		0.01	0.16	0.30	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	72.3	72.3	0.01	< 0.005	_	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Trenching (2028) - Mitigated

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Lo	cation	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	всо2	NBCO2	CO2T	CH4	N2O	R	CO2e
Or	nsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

									I									
Daily, Summer (Max)	_	_	_	_	_		_		_	_	_	_		_	_	_	_	_
Off-Road Equipment		6.84	81.5	149	0.41	1.22	_	1.22	1.22	_	1.22	_	39,845	39,845	3.26	1.06	_	40,242
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Average Daily	_	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.08	0.89	1.63	< 0.005	0.01	_	0.01	0.01	_	0.01	_	437	437	0.04	0.01	_	441
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.01	0.16	0.30	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	72.3	72.3	0.01	< 0.005	_	73.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	-	-	-	_	_	_	_
Average Daily	_	_	_	_	-	_	_	_	_	-	_	_	-	-	-	-	-	_

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio n	TOG	ROG		со		PM10E			PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_			_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	<u> </u>	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Land Use	TOG	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

	TOG	DOC.		СО	SO2			PM10T				DCCC	NDCOO	CO2T	CH4	NOO	В	CO2e
Species	100	ROG	NOx	CO	502	PM10E	PINITUD	PIVITUT	PIVIZ.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO21	CH4	N2O	R	COZe
Daily, Summer (Max)	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	<u> </u>	_	_	_	_	_	<u> </u>	_	<u> </u>	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Vegetatio n	TOG	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Total	_	_	_	-	_	_	_	_	_	_	-	_	_	_	-	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG		со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Species	TOG	ROG		СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided		_	_	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Remove	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal		_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided		_	_	_	_	_		_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered	_	_	_	_	_	_		_	_		_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequest ered		_	_	_	_	_		_		_	_	_		_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Remove d	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Track & Signal Work	Trenching	5/1/2028	5/4/2028	5.00	4.00	_

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Track & Signal Work	Other Construction Equipment	Diesel	Average	2.00	10.0	4,400	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
T TIGO T TOTAL		one may inpoper bay	oo porp	10111010111111

Track & Signal Work	_	_	_	_
Track & Signal Work	Worker	0.00	14.3	LDA,LDT1,LDT2
Track & Signal Work	Vendor	0.00	8.80	HHDT,MHDT
Track & Signal Work	Hauling	0.00	20.0	HHDT
Track & Signal Work	Onsite truck	0.00	2.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated	Residential Exterior Area Coated	Non-Residential Interior Area	Non-Residential Exterior Area	Parking Area Coated (sq ft)
	(sq ft)	(sq ft)	Coated (sq ft)	Coated (sq ft)	

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Payed (acres)
I Hase Name	iviateriai irriporteu (cy)	I wateriai Exported (cy)	Acres Graded (acres)	Material Demonstred (sq. 1t.)	Acres i aveu (acres)

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Office Building	0.00	0%
Other Non-Asphalt Surfaces	2.00	0%
Parking Lot	0.10	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	0.00	0.00	0.00

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
regerence =	13		

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
vegetation Earla ede Type	vogotation con 1960	milai / toros	Tillal Acido

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
Biornass Cover Type	Tilliai 7 to C3	i ilai 7000

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres
Districted Colors Type		This Tieres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
21			

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.3	annual days of extreme heat
Extreme Precipitation	5.80	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A

Extreme Precipitation	2	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	2	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

he maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.		
Indicator	Result for Project Census Tract	
Exposure Indicators	_	
AQ-Ozone	65.4	
AQ-PM	16.4	
AQ-DPM	62.4	
Drinking Water	0.54	
Lead Risk Housing	38.6	
Pesticides	0.00	
Toxic Releases	14.7	
Traffic	80.2	
Effect Indicators	_	
CleanUp Sites	62.4	
Groundwater	86.7	
Haz Waste Facilities/Generators	52.6	
Impaired Water Bodies	72.2	
Solid Waste	94.1	
Sensitive Population	_	
Asthma	46.2	
Cardio-vascular	83.6	
Low Birth Weights	28.8	
Socioeconomic Factor Indicators	_	
Education	11.4	
Housing	69.2	

Linguistic	0.92
Poverty	42.6
Unemployment	64.5

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	_
Above Poverty	55.89631721
Employed	49.83959964
Median HI	43.92403439
Education	
Bachelor's or higher	58.65520339
High school enrollment	100
Preschool enrollment	16.54048505
Transportation	
Auto Access	87.47593995
Active commuting	52.35467727
Social	
2-parent households	62.5433081
Voting	80.61080457
Neighborhood	_
Alcohol availability	65.41768254
Park access	81.35506224
Retail density	75.01604004
Supermarket access	31.39997434
Tree canopy	83.53650712

Housing	_
Homeownership	54.45912999
Housing habitability	70.61465418
Low-inc homeowner severe housing cost burden	80.17451559
Low-inc renter severe housing cost burden	49.18516617
Uncrowded housing	78.31387142
Health Outcomes	_
Insured adults	54.83125882
Arthritis	38.0
Asthma ER Admissions	44.1
High Blood Pressure	70.1
Cancer (excluding skin)	27.6
Asthma	40.2
Coronary Heart Disease	57.7
Chronic Obstructive Pulmonary Disease	47.8
Diagnosed Diabetes	82.1
Life Expectancy at Birth	45.6
Cognitively Disabled	62.4
Physically Disabled	24.6
Heart Attack ER Admissions	32.5
Mental Health Not Good	56.0
Chronic Kidney Disease	79.8
Obesity	54.0
Pedestrian Injuries	44.6
Physical Health Not Good	66.1
Stroke	70.4
Health Risk Behaviors	_

Binge Drinking	7.5
Current Smoker	49.4
No Leisure Time for Physical Activity	72.6
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	73.7
Elderly	47.3
English Speaking	70.8
Foreign-born	4.8
Outdoor Workers	85.4
Climate Change Adaptive Capacity	_
Impervious Surface Cover	78.6
Traffic Density	75.9
Traffic Access	49.4
Other Indices	_
Hardship	35.6
Other Decision Support	_
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	54.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Construction schedule provided by project applicant. Run only includes off-site locomotive operation.
Construction: Off-Road Equipment	Construction equipment list provided by project applicant.
Land Use	Based on applicant-provided data.
Operations: Water and Waste Water	Based on applicant-provided data.
Operations: Solid Waste	Based on applicant-provided data.
Operations: Energy Use	Based on applicant-provided data.
Construction: Demolition	Based on applicant-provided data.
Construction: Trips and VMT	Run only includes off-site locomotive operation.
Construction: Electricity	Run only includes off-site locomotive operation.
Construction: Dust From Material Movement	Run only includes off-site locomotive operation.
Construction: Architectural Coatings	Based on applicant-provided data.
Construction: Paving	Based on applicant-provided data.
Construction: Off-Road Equipment EF	Per EPA Line-Haul emission factors for Tier 4 locomotive.
Construction: On-Road Fugitive Dust	Run only includes off-site locomotive operation.

Operational Locomotive Emissions Modeling

HP	BSFC (lbs/hp-hr)	BSFC (gal/hp-hr)
300 < hp < 750	0.367	0.05
Source: Appendix C		

Emis	ssion Standards		Grams/hp-hr								
HP	Tier	HC	NMHC + NOX	CO	NOX	PM					
<600 to <750	Tier 1	1		8.5	6.9	0.4					
	Tier 2		4.8	2.6		0.15					
	Tier 3		3	2.6							
	Tier 4 I	0.14			0.3	0.01					

0.14

Calculated	d Emission Standards					
HP	Tier	ROG	NOX	CO	PM10	PM2.5
<600 to <750	Tier 1	1.1	6.9	8.5	0.40	0.39
	Tier 2	0.3	4.6	2.6	0.15	0.15
	Tier 3	0.2	2.9	2.6	0.15	0.15
	Tier 4 I	0.1	0.3	2.6	0.01	0.01
	Tier 4	0.1	0.3	2.6	0.01	0.01

Converted	d Emission Standards			Grams/gallon		
HP	Tier	ROG	NOX	CO	PM10	PM2.5
<600 to <750	Tier 1	0.05	0.35	0.44	0.02	0.02
	Tier 2	0.01	0.23	0.13	0.01	0.01
	Tier 3	0.01	0.15	0.13	0.01	0.01
	Tier 4 I	0.01	0.02	0.13	0.00	0.00
	Tier 4	0.01	0.02	0.13	0.00	0.00

CO2 CO2 = (BSFC * 453.6 - HC) * 0.87 * (44/12)

Tier	g/hp-hr	grams/gallon
Tier 1	163	8
Tier 2	166	9
Tier 3	166	9
Tier 4 I	166	9
Tier 4	166	9

SO2 SO2 = (BSFC * 453.6* (1 - soxcnv) - HC) * 0.01 * soxdsl * 2

Tier	g/hp-hr	grams/gallon
Tier 1	0.81	0.04
Tier 1 Tier 2	0.81	0.04
Tier 3	0.81	0.04
Tier 4 I	0.58	0.03
Tier 4	0.58	0.03

0.02247 All other Tiers soxcnv 0.3 Tier 4 only 0.25 soxdsl

 $http://www.baaqmd.gov/^media/Files/Engineering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx?la=engering/Public%20Notices/2009/20382/B9597_nsr_20382_eval_071009.ashx.$ http://www.baaqmd.gov/~/media/Files/Engineering/Public%20Notices/2009/20382/89597_nsr_20382_eval_071009.ashx?la=en 0.984 http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf NOX_NMHC + NMHC % 5%

NMHC/THC ROG_HC (or THC) 1.053 http://www.epa.gov/oms/models/nonrdmdl/nonrdmdl2010/420r10015.pdf

PM2.5%

7.15 pounds diesel/gallon

0.01

Summary

Locomotive	Engine Tier	HEP (gal/hr)	Traction (gal/hr)	Notes
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-I	21	63	HEP is separate engine (500 KW)
Dash 8 Series (P32)	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine
Notes			•	

- Notes
 1. Traction fuel consumption for F59, P32, and P42 based on calculations and sources shown below
 2. HEP fuel consumption based on SMAQMD calculations provided by J. Allison
- 3. HEP and Traction fuel consumption for ACR-44 scaled from P42 based on horsepower ratio

P42 Horsepower ACR-44 Horsepower 4000 Source: 12/9/2014 call 4200 Source: 12/9/2014 call

Calculations - Traction Engine

Throttle Position	P32 (lbs/hour)*	P42 (lbs/hour)**	F59 (gals/hr)***	P32 (gals/hr)	P42 (gals/hr)	% Time in Notch****	F59 Weighted (gal/hr)	P32 Weighted (gal/hr)	P42 Weighted (gal/hr)
8	1060.0	1496.7	156.0	149.3	210.8	25%			
7	833.0	1223.7	128.0	117.3	172.4	2%			
6	572.0	977.1	88.0	80.6	137.6	5%			
5	480.0	756.8	74.6	67.6	106.6	6%			
4	368.0	514.2	57.1	51.8	72.4	8%			
3	254.0	367.3	38.2	35.8	51.7	9%			
2	142.0	171.1	19.6	20.0	24.1	8%			
1	91.0	90.5	11.9	12.8	12.7	11%			
Idle	32.0	25.9	2.6	4.5	3.6	15%			
DB	79.0	59.2	4.7	11.1	8.3	10%			
							63	61	85

Fritz 1994 (Table 4, Standard Injection Timing)

** NPI Engineering 2005 (Slide 2)

** Electro-Motive Diesel 2008

**** EPA 1998 (Table 4-5) Adjusted to reduce time at idle to 15%

Diesel Fuel Conversion 7.1 lbs/gal 100

Original		
15.6%	15.6	25.2%
1.4%	1.4	2.3%
2.9%	2.9	4.7%
4.0%	4	6.5%
4.7%	4.7	7.6%
5.7%	5.7	9.2%
5.1%	5.1	8.2%
7.0%	7	11.3%
47.4%	9.3	15.0%
6.2%	6.2	10.0%
	 61.9	100.0%

Locomotive Details

				1	raction					Traction - Existing			Traction - Opening			Traction - Design		
Locomotive	Tier		Fuel	Exi	ting	Ope	ning	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	Hei		(gal/hr)	#	%	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	2		63	12	52%	4	17%	0	0%	0	0	102	0	0	34	0	0	0
F59 Series 3412C	2		63	3	13%	1	4%	0	0%	0	0	26	0	0	9	0	0	0
Dash 8 Series	0+		61	2	9%	1	4%	0	0%	0	0	17	0	0	9	0	0	0
P42 Series	0		85	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
ACR-44	4		90	6	26%	17	74%	24	100%	0	0	51	0	0	145	1	0	196
Total	-			23	100%	23	100%	24	100%	0.6	0.4	196	0.6	0.4	196	0.6	0.4	196

				HEP					Н	EP - Existing			HEP - Opening	5		HEP - Design				
Locomotive	Tier	Fuel	Exi	sting	Ope	ning	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual			
	Hei	Hei	Her	Hei	(gal/hr)	#	%	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	3	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0			
F59 Series C15	4-1	21	4	17%	1	4%	0	0%	2	1	529	0	0	132	0	0	0			
F59 Series C15	4	21	5	22%	2	9%	0	0%	2	1	661	1	1	264	0	0	0			
F59 Series 3412C	0	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0			
F59 Series 3412C	4-1	21	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0			
Dash 8 Series	0+	28	2	9%	1	4%	0	0%	1	1	264	0	0	132	0	0	0			
P42 Series	0	28	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0			
ACR-44	4	29	6	26%	17	74%	24	100%	2	2	793	7	4	2247	9	6	3040			
Total	-	-	23	100%	23	100%	24	100%	9.4	6.0	3,040	9.4	6.0	3,040	9.4	6.0	3,040			

NET Pounds per day - WeekDAY (max)

Locomotive				Tracti	on - Existing					Traction - Opening										Traction - Design							
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.2	4.5	1.2	0.2	0.2	0.0	443	0.0	0.0	0.1	1.5	0.4	0.1	0.1	0.0	147.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
F59 Series 3412C	0.1	1.1	0.3	0.0	0.0	0.0	111	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0	36.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Dash 8 Series	0.0	1.0	0.2	0.0	0.0	0.0	71	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0	35.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
ACR-44	0.0	0.6	0.8	0.0	0.0	0.0	316	0.0	0.0	0.1	1.8	2.3	0.0	0.0	0.0	895.3	0.1	0.0	0.1	2.5	3.2	0.0	0.0	0.0	1,211	0.1	0.0
Total	0.4	7.3	2.5	0.2	0.2	0.0	940	0.1	0.0	0.2	4.2	2.9	0.1	0.1	0.0	1,115	0.1	0.0	0.1	2.5	3.2	0.0	0.0	0.0	1,211	0.1	0.0

ŀ	N2O	
	0.0	Loco EF
1	N20	
	0.0	Offroad EF
	0.0	Loco EF
	0.0	Loco EF
	0.2	Loco EF
	0.2	Loco EF

Note

Locomotive				HER	- Existing								HE	P - Opening									HEP - Design				
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N20	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.3	7.6	1.3	0.2	0.2	0.0	515.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.1	3.3	4.2	0.0	0.0	0.0	1622.5	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	3.8	0.0	0.2	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2
Total	0.5	10.9	5.6	0.3	0.3	0.0	2139.9	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	4.9	0.0	0.2	0.5	12.7	16.2	0.2	0.2	0.1	6219.4	0.5	0.2
Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O																		
Existing - Entire project	1	18	8	1	0	0	3,080	0	0																		
Design - Entire project	1	15	19	0	0	0	7,431	1	0																		

NET Tons and metric tons per year

Lanamativa				Tracti	on - Existing								Trac	tion - Openin	3							Tr	action - Desig	n									
Locomotive	ROG	NOX	CO	PM10	PM2.5	502	CO2	CH4	N20	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	502	CO2	CH4	N2O						
F59 Series C15	0.0	0.7	0.2	0.0	0.0	0.0	66	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	24.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0						
F59 Series 3412C	0.0	0.2	0.0	0.0	0.0	0.0	16	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0						
Dash 8 Series	0.0	0.2	0.0	0.0	0.0	0.0	11	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0						
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0						
ACR-44	0.0	0.1	0.1	0.0	0.0	0.0	47	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	146.2	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	179	0.0	0.0						
Total	0.1	1.2	0.4	0.0	0.0	0.0	139	0.0	0.0	0.0	0.7	0.5	0.0	0.0	0.0	182	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	179	0.0	0.0						

Locomotive				HEP	- Existing								HE	P - Opening									HEP - Design				
Locomotive	ROG	NOX	CO	PM10	PM2.5	502	CO2	CH4	N2O	ROG	NOX	co	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Total	0.0014	0.0083	0.0159	0.0005	0.0004	0.0027	0.6772	0.0000	0.0000	0.0010	0.0042	0.0145	0.0002	0.0002	0.0029	0.7847	0.0000	0.0000	0.0007	0.0015	0.0131	0.0001	0.0000	0.0029	0.8396	0.0000	0.0000

Condition	ROG	NOX	CO	PM10	PM2.5	502	CO2	CH4	N2O
Existing	0	1	0	0	0	0	140	0	0
Opening	0	1	0	0	0	0	183	0	0
Design	0	0	1	0	0	0	180	0	0

 pounds per gram
 0.00220462

 tons per gram
 1.10E-06

 mt per gram
 1.00E-06

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF
Loco EF

Locomotive Details

				Traction					Tra	ction - Existi	ng	Tra	ction - Open	ing	Tr	raction - Desi	gn
Locomotive	Tier	Fuel (gal/hr)	Exis	ting	Ope	ning	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	Her	ruei (gai/iii)	#	%	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	2	63	12	52%	4	17%	0	0%	0	0	102	0	0	34	0	0	0
F59 Series 3412C	2	63	3	13%	1	4%	0	0%	0	0	26	0	0	9	0	0	0
Dash 8 Series	0+	61	2	9%	1	4%	0	0%	0	0	17	0	0	9	0	0	0
P42 Series	0	85	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
ACR-44	4	90	6	26%	17	74%	24	100%	0	0	51	0	0	145	1	0	196
Total	-	-	23	100%	23	100%	24	100%	0.6	0.4	196	0.6	0.4	196	0.6	0.4	196

				HEP					I	HEP - Existing		H	HEP - Openin	g		HEP - Design	
Locomotive	Tier	Fuel (gal/hr)	Exis	ting	Оре	ning	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	Her	ruei (gai/iii)	#	%	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	3	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0
F59 Series C15	4-I	21	4	17%	1	4%	0	0%	2	1	529	0	0	132	0	0	0
F59 Series C15	4	21	5	22%	2	9%	0	0%	2	1	661	1	1	264	0	0	0
F59 Series 3412C	0	21	3	13%	1	4%	0	0%	1	1	397	0	0	132	0	0	0
F59 Series 3412C	4-I	21	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+	28	2	9%	1	4%	0	0%	1	1	264	0	0	132	0	0	0
P42 Series	0	28	0	0%	0	0%	0	0%	0	0	0	0	0	0	0	0	0
ACR-44	4	29	6	26%	17	74%	24	100%	2	2	793	7	4	2247	9	6	3040
Total	-	-	23	100%	23	100%	24	100%	9.4	6.0	3,040	9.4	6.0	3,040	9.4	6.0	3,040

NET gallons and BTU - WeekDAY (max) and Annual

			Gallon	s-Diesel					Combustion B	TU (million)					Total BTU	J (million)		
Locomotive	Traction	- Existing	Traction	- Opening	Traction	- Design	Traction	- Existing	Traction	- Opening	Traction	- Design	Traction	- Existing	Traction	- Opening	Traction	- Design
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	20	6,425	7	2,142	0	0	3	832	1	277	1	277	3	1,007	1	336	0	0
F59 Series 3412C	5	1,606	2	535	0	0	1	208	0	69	0	69	1	252	0	84	0	0
Dash 8 Series	3	1,032	2	516	0	0	0	134	0	67	0	67	0	162	0	81	0	0
P42 Series	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACR-44	14	4,587	40	12,995	54	17,582	2	594	5	1,683	5	1,683	2	719	6	2,037	8	2,756
Total	42	13,650	50	16,188	54	17,582	5	1,767	6	2,096	6	2,096	7	2,140	8	2,538	8	2,756

			Gallon	s-Diesel					Combustion B	TU (million)					Total BTI	J (million)		
Locomotive	HEP - E	xisting	HEP - (Opening	HEP - I	Design	HEP - E	existing	HEP - C	pening	HEP -	Design	HEP - E	xisting	HEP - (Opening	HEP -	Design
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	26	8,327	9	2,776	0	0	3	1,078	1	359	0	0	4	1,305	1	435	0	0
F59 Series C15	34	11,103	9	2,776	0	0	4	1,438	1	359	0	0	5	1,741	1	435	0	0
F59 Series C15	43	13,878	17	5,551	0	0	6	1,797	2	719	0	0	7	2,176	3	870	0	0
F59 Series 3412C	26	8,327	9	2,776	0	0	3	1,078	1	359	0	0	4	1,305	1	435	0	0
F59 Series 3412C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	23	7,402	11	3,701	0	0	3	958	1	479	0	0	4	1,160	2	580	0	0
P42 Series	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ACR-44	72	23,315	204	66,061	276	89,376	9	3,019	26	8,554	36	11,573	11	3,655	32	10,356	43	14,011
Total	224	72,352	259	83,640	276	89,376	29	9,369	33	10,830	36	11,573	35	11,342	41	13,112	43	14,011

	Gallons	s-Diesel	Combus	tion BTU	Tota	l BTU
Condition	Daily	Annual	Daily	Annual	Daily	Annual
Existing	266	86,002	34	11,136	42	13,482
Opening	308	99,828	40	12,927	48	15,650
Design	330	106,958	42	13,669	52	16,767

 Fuel
 Combustion
 Total
 Unit

 Gasoline
 113,927
 138,766
 BTU/Gal

 Diesel
 129,488
 156,765
 BTU/Gal

Million 1,000,000

Future Locomotives in Use for Capitol Corridor Service for Air Quality Analysis purposes

Loco #	Name	Traction Power Engine	2018	(base)	2029 (o	pening)	2035 (design)	HEP Power Engine	2018	(base)	2029 (o	pening)	2035 (design)
	•		Tier#	#	Tier#	#	Tier#	#		Tier#	#	Tier#	#	Tier#	#
2001	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	3	1	3	0	4-I	0
2002	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	3	1	3	0	4-I	0
2003	F59 Series 3412C	EMD710 ECO	2	1	2	0	2	0	CAT 3412	0	1	0	0	4-I	0
2004	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2005	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2006	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2007	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT - C-15i	4-I	1	4-I	0	4-I	0
2008	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT C-15	4	1	4	0	4	0
2009	F59 Series C15	EMD710 ECO	2	1	2	0	2	0	CAT - C-15i	4-I	1	4-I	0	4-I	0
2010	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT - C-15i	4-I	1	4-I	0	4-I	0
2011	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT C-15	4	1	4	2	4	0
2012	F59 Series 3412C	EMD710 ECO	2	1	2	0	2	0	CAT 3412	0	1	0	0	4-I	0
2013	F59 Series 3412C	EMD710 ECO	2	1	2	1	2	0	CAT 3412	0	1	0	1	4-I	0
2014	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT - C-15i	4-I	1	4-I	1	4-I	0
2015	F59 Series C15	EMD710 ECO	2	1	2	1	2	0	CAT C-15	3	1	3	1	4-I	0
2051	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	0	0+	0	Part of main engine	0+	1	0+	0	0+	0
2052	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	1	0+	0	Part of main engine	0+	1	0+	1	0+	0
Qty. 4-7 #1-207	P42 Series	Gen. Elect. P-42	0	0	0	0	0	0	main engine	0	0	0	0	0	0
New Loco CDTXxxx	ACR-44	Cummings QSK95		6		17	4	24	AC traction part of eng. Sys	4	6	4	17	4	24
New Loco CDTXxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95					4	0	AC traction part of eng. Sys					4	0

HEP upgrade to Tier 4-l is expected to complete in March 2015, replacing the existing Tier III and the 3412 series engines.

Two GE P32-8 locomotives are being currently reviewed for their potential future possible rebuild to latest EPA emissions technology available on these types of engines 2008 fleet mix is equal to 2015 mix; thereafter, new locomotives will be phased

Tier	2018	(base)	2029 (oper	ning)	2025 /	1
Hei	#				2035 (design)
		%	#	%	#	%
2	12	52%	4	17%	0	0%
2	3	13%	1	4%	0	0%
0+	2	9%	1	4%	0	0%
0	0	0%	0	0%	0	0%
4	6	26%	17	74%	24	100%
-	23	100%	23	100%	24	100%
	0	0 0	0+ 2 9% 0 0 0% 4 6 26%	0+ 2 9% 1 0 0 0 0% 0 4 6 26% 17	0+ 2 9% 1 4% 0 0 0% 0 0% 4 6 26% 17 74%	0+ 2 9% 1 4% 0 0 0 0% 0 0% 0 4 6 26% 17 74% 24

				HEP			
Locomotive	Tier	2018	(base)	2029 (oper	ning)	2035 (design)
	Hei	#	%	#	%	#	%
F59 Series C15	3	3	13%	1	4%	0	0%
F59 Series C15	4-I	4	17%	1	4%	0	0%
F59 Series C15	4	5	22%	2	9%	0	0%
F59 Series 3412C	0	3	13%	1	4%	0	0%
F59 Series 3412C	4-I	0	0%	0	0%	0	0%
Dash 8 Series	0+	2	9%	1	4%	0	0%
P42 Series	0	0	0%	0	0%	0	0%
ACR-44	4	6	26%	17	74%	24	100%
Total		23	100%	23	100%	24	100%

Capitol Corridor Service Increment - Sacramento to Roseville 3rd Track Project

Daily minutes shown for each additional train between Sacramento and Roseville inclue travel time in rolling operation and idle time

Assumed level of Weekday service and Weekend/Holiday Schedule service per year

Ops/year

Ops/Year

250 115

Hours/Year Rose

3040

	Typical	Weekday Day	Typical We	eekend Day	Weekday Conversion t	o Daily Hours of service	Weekend/Holiday Convers	ion to Daily Hours of service
Added Trips	Running Time (min)	Idle (HEP) Time Rose (min)	Running Time (min)	Idle (HEP) Time Rose (min)	Running Time (hr)	Idle (HEP) Time Rose (hr)	Running Time (hr)	Idle (HEP) Time Rose (hr)
Trip #1	2	30	2	30	0.033	0.500	0.03	0.50
Trip #2	2	30	2	30	0.033	0.500	0.03	0.50
Trip #3	2	30	2	30	0.033	0.500	0.03	0.50
Trip #4	2	30	2	30	0.033	0.500	0.03	0.50
Trip #5	2	46	2	30	0.033	0.767	0.03	0.50
Trip #6	2	30	2	30	0.033	0.500	0.03	0.50
Trip #7	2	30	2	30	0.033	0.500	0.03	0.50
Trip #8	2	34	2	30	0.033	0.567	0.03	0.50
Trip #9	2	30	2	30	0.033	0.500	0.03	0.50
Trip #10	2	30	2	30	0.033	0.500	0.03	0.50
Trip #11	2	30	2	30	0.033	0.500	0.03	0.50
Trip #12	2	30	2	30	0.033	0.500	0.03	0.50
Trip #13	2	30			0.033	0.500		
Trip #14	2	30			0.033	0.500		
Trip #15	2	30			0.033	0.500		
Trip #16	2	34			0.033	0.567		
Trip #17	2	30			0.033	0.500		
Trip #18	2	30			0.033	0.500		
TOTALS	36	564	24	360	0.6	9.4	0.4	6

Sources and Assumptions:

CCJPA is the source for running times and idle (HEP) times. These values are based on travel schedules and estimated layover hours required for each trip which vary based on the schedule.

Layover facility would add 2 minutes of running time to each train evaluated in the previous EIR for the additional distance from the station to the layover, which is about 1 mile (2 minute travel time, assuming it's made at 30 MPH).

The HEP is subject to the ARB offroad standards. ONLY the P59 has a separate HEP engine. All other locomotives utilize the traction engine for hoteling

Engine Tier				Powe	r Engine (g/ga	I)				Engine Tier		500 kV	V HEP Engir	ie (g/gal) [O	NLY FOR SEP	ARATE HEP	ENGINE ON	F59]	
Engine Hei	ROG	NOX	со	PM10	PM2.5	SO2	CO2	CH4	N2O	Eligille Hei	ROG	NOX	со	PM10	PM2.5	SO2	CO2	CH4	N2O
0	10.51	178.88	26.62	6.66	6.46	0.09	10,208	0.80	0.26	0	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
0+	6.57	149.76	26.62	4.16	4.04	0.09	10,208	0.80	0.26	0+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1	10.29	139.36	26.62	6.66	6.46	0.09	10,208	0.80	0.26	1	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1+	6.35	139.36	26.62	4.16	4.04	0.09	10,208	0.80	0.26	1+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
2	5.69	102.96	26.62	3.74	3.63	0.09	10,208	0.80	0.26	2	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
2+	2.85	102.96	26.62	1.66	1.61	0.09	10,208	0.80	0.26	2+	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
3	2.85	102.96	26.62	1.66	1.61	0.09	10208	0.80	0.26	3	0.01	0.15	0.13	0.01	0.01	0.04	9	0.00	0.00
4-I	-	-	-	-	-	-	-	-	-	4-I	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00
4	0.88	20.80	26.62	0.31	0.30	0.09	10,208	0.80	0.26	4	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00

EPA 2009, Table 1 https://nepis.epa.gov/Exe/ZyNET.exe/P100500B.txt?ZyActionD=ZyDocument&Client=EPA&Index=2006%20Thru%20 EPA 2009 http://www.epa.gov/otaq/models/nonrdmdl/nonrdmdl/2010/420r10018.pdf

Climate Registry http://www.theclimateregistry.org/downloads/2014/02/2014-Climate-Registry-Default-Emissions-Factors.pdf See: C-I Emission Rates.xls

 VOC_HC
 1.053
 N2O_CO2 Dic 2.5465E-05 Climate Registry 2014

 PM2.5_PM10
 0.97
 CH4_CO2 Dic 5.6807E-05 Climate Registry 2014

bhp-hr/gal 20.8 EPA 2011

SO2 (g/gal) = 0.09

(fuel density) x (conversion factor) x (64 g SO2 / 32 g S) x (5 content of fuel) fuel density 3200 g/gal

conversion factor 0.978 (fraction of fuel sulfur convered to so2)
64/32 2

S content of fuel 1.50E-05 15 ppm

http://www.arb.ca.gov/regact/carblohc/ruid.pdf

CO2 (g/gal) = 10208 based on:

(fuel density) x (44 g CO2 / 12 g C) x (C content of fuel) fuel density 3200 g/gal

44 / 12 3.66666667 C content of fuel 8.70E-01 87% by mass

1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10

		Idle-HEP Mode	Traction	Notes
Locomotive	Engine Tier	Fuel (gal/hr)	Fuel (gal/hr)	Notes
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-1	21	63	HEP is separate engine (500 KW)
Dash 8 Series	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine

See: Locomotive Weighted Fuel Consumption Rate.xls

Table 1. Net Project Impact under Existing Conditions (2013) in PCAPCD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	S02
Train Operation (movement and idle) ^a	2.7	51.4	11.1	1.8	1.7	0.1
Public vehiclesb	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses - Thruway Service c	0.0	-0.2	-0.4	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.1	0.2	0.0	0.0	0.0
O&M at Roseville Station	0.1	0.1	0.3	0.0	0.0	0.0
Total Net Change	-3.8	29.9	-69.6	-4.6	-0.4	-0.1

a. Based on maxiumn weekday operating schedule

Table 2. Net Project Impact under Existing Conditions (2013) in SMAQMD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	S02
Train Operation (movement and idle) ^a	6.3	115.4	28.0	4.1	4.0	0.1
Public vehicles ^b	-6.6	-21.5	-80.8	-6.4	-2.1	-0.2
Public Buses - Thruway Service c	0.0	-0.2	-0.4	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Change	-0.3	93.7	-53.2	-2.3	1.9	-0.1

a. Based on maximum weekday operating schedule

Table 3. Net Project Impact under Existing Conditions (2013) in the Entire Project Area (tons/metric tons per year)

Parameter	ROG	NOX	CO	PM10	PM2.5	S02	CO2 ^a	CH4	N20	Other	CO2e
Train Operation (movement and idle)	1.5	27.3	6.4	1.0	0.9	0.0	2,223.4	0.2	0.1	-	2,243
Public vehicles	-2.3	-7.5	-28.0	-2.2	-0.7	-0.1	-4,508	-	-	-54	-4,562
Public Buses - Thruway Service	0.0	0.0	-0.1	0.0	0.0	0.0	-20	0.0	0.0	-	-20
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0	8	0.0	0.0	-	8
O&M at Roseville Station	0.0	0.0	0.1	0.0	0.0	0.0	29	0.1	0.0	0.1	32
Standby Electricity Usage	-	-	-	-	-	-	-80	0.0	0.0	0.0	-81
Total Net Change	-0.8	19.8	-21.6	-1.2	0.22	-0.04	-2,349	0.3	0.1	-54	-2,380

a. Assumes Pavley/LCFS/RPS, as applicable

b. Changes in public vehicle usage would occur in both SMAQMDand PCAPCD. Total emissions reductions scaled 50% to PCAPCD

c. Changes in Thurway service would occur in SMAQMDand PCAPCD. Total emissions reductions scaled 50% to PCAPCD

b. Changes in public vehicle usage would occur in both SMAQMDand PCAPCD. Total emissions reductions scaled 50% to PCAPCD

c. Changes in Thruway service would occur in SMAQMDand PCAPCD. Total emissions reductions scaled 50% to PCAPCD

Table 4. Net Project Impact under Design Conditions (2035) in PCAPCD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	S02
Train Operation (movement and idle) ^a	0.9	21.9	28.1	0.3	0.3	0.1
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses - Thruway Service	0.0	0.0	0.0	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.1	0.0	0.1	0.0	0.0	0.0
O&M at Roseville Layover Facility	0.1	0.0	0.3	0.1	0.0	0.0
Total Net Change	-1.6	16.1	-0.6	-5.8	-1.6	-0.1

a. Based on maxiumn weekday operating schedule

Table 5. Net Project Impact under Design Conditions (2035) in SMAQMD (pounds per day)

Parameter	ROG	NOX	CO	PM10	PM2.5	S02
Train Operation (movement and idle) ^a	0.9	21.4	27.4	0.3	0.3	0.1
Public vehicles	-2.7	-5.9	-29.1	-6.2	-1.9	-0.2
Public Buses - Thruway Service	0.0	0.0	0.0	0.0	0.0	0.0
Public Buses - Roseville Transit	0.0	0.0	0.0	0.0	0.0	0.0
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0
Total Net Change	-1.8	15.5	-1.7	-5.9	-1.6	-0.1

a. Based on maxiumn weekday operating schedule

Table 6. Net Project Impact under Design Conditions (2035) in the Entire Project Area (tons per year)

Parameter	ROG	NOX	CO	PM10	PM2.5	SO2	CO2 ^a	CH4	N20	Other	CO2e
Train Operation (movement and idle)	0.3	7.1	9.1	0.1	0.1	0.0	3,147.9	0.2	0.1	-	3,176
Public vehicles	-1.0	-2.0	-10.1	-2.2	-0.7	-0.1	-3,388	-	-	-41	-3,428
Public Buses - Thruway	0.0	0.0	0.0	0.0	0.0	0.0	-18.4	0.0	0.0	-	-18
Public Buses - Roseville	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	-	7
O&M at Roseville Station	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.1	0.0	0.1	21
Standby Electricity Usage	-	-	-	-	-	-	-36	0.0	0.0	0.0	-37
O&M at Roseville Layover Facility	0.1	0.0	0.3	0.1	0.0	0.0	95.3	0.3	0.0	-	104
Total Net Change	-0.5	5.1	-0.7	-2.0	-0.5	0.0	-174.1	0.6	0.1	-40.6	-175.1

a. Assumes Pavley/LCFS/RPS, as applicable

Table 1. Net Project Enegy Impact (million BTUs per year) (combustion)

Source	Existing	Design		
Direct Energy				
Train Operation (movement and idle)	26,810	37,655		
Public vehicles	-73,787	-54,603		
Public Buses	-693	-693	-47,670	-17,641
Indirect Energy				
O&M at Roseville Station	430	379		
Standby Electricity Usage	-943	-943	-513	-564
Total Net Change	-48,183	-18,204		

Construction Energy

45,387 Million BTU

Locomotive Details

			Traction				Trac	tion - Existing	3	Tr	action - Desi	ζn
Locomotive	Tier	Fuel	Exis	ting	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	rier	(gal/hr)	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	2	63	12	67%	0	0%	7	5	2270	0	0	0
F59 Series 3412C	2	63	3	17%	0	0%	2	1	568	0	0	0
Dash 8 Series	0+	61	2	11%	0	0%	1	1	378	0	0	0
P42 Series	0	85	1	6%	0	0%	1	0	189	0	0	0
ACR-44	4	90	0	0%	24	100%	0	0	0	10	7	3405
Total			18	100%	24	100%	10.4	7.0	3,405	10.4	7.0	3,405

			HEP				HEP - Ex	xisting Sacram	ento	HEP	- Existing Ros	eville	HEP -	Design Sacrar	mento	HEP	- Design Rose	eville
Locomotive	Tier	Fuel	Exis	ting	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	Hei	(gal/hr)	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	3	21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series C15	4-I	21	4	22%	0	0%	-2	-1	-653	2	1	676	0	0	0	0	0	0
F59 Series C15	4	21	5	28%	0	0%	-3	-2	-817	3	2	844	0	0	0	0	0	0
F59 Series 3412C	0	21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series 3412C	4-I	21	0	0%	0	0%	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+	28	2	11%	0	0%	-1	-1	-327	1	1	338	0	0	0	0	0	0
P42 Series	0	28	1	6%	0	0%	-1	0	-163	1	0	169	0	0	0	0	0	0
ACR-44	4	29	0	0%	24	100%	0	0	0	0	0	0	-9	-6	-2940	9	6	3040
Total	-	-	18	100%	24	100%	-9.0	-6.0	-2,940	9.4	6.0	3,040	-9.0	-6.0	-2,940	9.4	6.0	3,040

NET Pounds per day - WeekDAY (max)

Locomotive	Traction - Existing Traction - Design										Note								
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	İ
F59 Series C15	5.5	98.9	25.6	3.6	3.5	0.1	9,803	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	Loco EF
F59 Series 3412C	1.4	24.7	6.4	0.9	0.9	0.0	2,451	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	Loco EF
Dash 8 Series	1.0	23.1	4.1	0.6	0.6	0.0	1,574	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	Loco EF
P42 Series	1.1	19.5	2.9	0.7	0.7	0.0	1,111	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	Loco EF
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	1.8	42.8	54.8	0.6	0.6	0.2	20,995	1.6	0.5	Loco EF
Total	9.0	166.2	39.0	5.9	5.7	0.1	14,939	1.2	0.4	1.8	42.8	54.8	0.6	0.6	0.2	20,995	1.6	0.5	Loco EF
Γ				LIED	Existing (SA	CDANAENITO	\						LIED D	esign (SACRA	NACNITO\				1
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	СО	PM10	PM2.5	SO2	CO2	CH4	N2O	İ
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
																0.0			Offroad Ef
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
Dash 8 Series	-0.4	-9.2	-1.6	-0.3	-0.2	0.0	-630.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Loco EF
P42 Series	-0.3	-5.5	-0.8	-0.2	-0.2	0.0	-315.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Loco EF
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.5	-12.1	-15.5	-0.2	-0.2	-0.1	-5954.8	-0.5	-0.2	Loco EF
Total	-0.7	-14.8	-2.5	-0.5	-0.5	0.0	-948.1	-0.1	0.0	-0.5	-12.1	-15.5	-0.2	-0.2	-0.1	-5954.8	-0.5	-0.2	Loco EF
				HEP	- Existing (F	OSEVILLE)							HEP -	Design (ROSE	VILLE)				I
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	со	PM10	PM2.5	SO2	CO2	CH4	N2O	İ
FFO Carino C1F				0.0	0.0		0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
IFOM DELIES C.LD	0.0	0.0	0.0			0.0													
F59 Series C15 F59 Series C15	0.0	0.0	0.0			0.0				0.0	0.0	0.0	0.0	0.0		0.0		0.0	Offroad El
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
F59 Series C15 F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.8 1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Offroad EF
F59 Series C15 F59 Series C15 F59 Series 3412C	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.8 1.0 0.6	0.0 0.0 0.0	0.0 0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0	0.0	0.0 0.0 0.0	0.0	Offroad EF Offroad EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0	Offroad EF Offroad EF Offroad EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	0.8 1.0 0.6	0.0 0.0 0.0	0.0 0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0	0.0	0.0 0.0 0.0	0.0	Offroad EF Offroad EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series	0.0 0.0 0.0 0.0 0.0 0.4 0.3	0.0 0.0 0.0 0.0 9.7 5.8	0.0 0.0 0.0 0.0 1.7 0.9	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1	0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	Offroad EF Offroad EF Offroad EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44	0.0 0.0 0.0 0.0 0.4 0.3	0.0 0.0 0.0 0.0 9.7 5.8 0.0	0.0 0.0 0.0 0.0 1.7 0.9	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1	0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 0.0 16.2	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad EF Offroad EF Offroad EF Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series	0.0 0.0 0.0 0.0 0.0 0.4 0.3	0.0 0.0 0.0 0.0 9.7 5.8	0.0 0.0 0.0 0.0 1.7 0.9	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1	0.0 0.0 0.0 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	Offroad EF Offroad EF Offroad EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44	0.0 0.0 0.0 0.0 0.4 0.3	0.0 0.0 0.0 0.0 9.7 5.8 0.0	0.0 0.0 0.0 0.0 1.7 0.9	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.3 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1	0.0 0.0 0.0 0.0 0.1 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 0.0 16.2	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad Ef Offroad Ef Offroad Ef Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44 Total	0.0 0.0 0.0 0.0 0.4 0.3 0.0 0.8	0.0 0.0 0.0 0.0 9.7 5.8 0.0	0.0 0.0 0.0 0.0 1.7 0.9 0.0 2.6	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5	0.0 0.0 0.0 0.0 0.3 0.2 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1 0.0 990.3	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 16.2 16.2	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad Ef Offroad Ef Offroad Ef Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44 Total Condition	0.0 0.0 0.0 0.0 0.4 0.3 0.0 0.8	0.0 0.0 0.0 0.0 9.7 5.8 0.0 15.5	0.0 0.0 0.0 0.0 1.7 0.9 0.0 2.6	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1 0.0 990.3	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 16.2 16.2	0.0 0.0 0.0 0.0 0.0 0.0 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad El Offroad El Offroad El Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44 Total Condition Existing - SACRAMENTO	0.0 0.0 0.0 0.0 0.4 0.3 0.0 0.8	0.0 0.0 0.0 0.0 9.7 5.8 0.0 15.5 NOX	0.0 0.0 0.0 0.0 1.7 0.9 0.0 2.6	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5 PM2.5	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1 0.0 990.3	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1 CH4	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 16.2 16.2 Track Miles SMAQMD	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad El Offroad El Offroad El Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44 Total Condition Existing - SACRAMENTO Design - SACRAMENTO	0.0 0.0 0.0 0.0 0.4 0.3 0.0 0.8 ROG 6	0.0 0.0 0.0 0.0 9.7 5.8 0.0 15.5 NOX 115 21	0.0 0.0 0.0 0.0 1.7 0.9 0.0 2.6 CO 28 27	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5 PM2.5 4	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1 0.0 990.3 CO2 10,757 10,495	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1 CH4	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 16.2 16.2 Track Miles SMAQMD	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Offroad Ef Offroad Ef Offroad Ef Loco EF Loco EF Loco EF
F59 Series C15 F59 Series C15 F59 Series 3412C F59 Series 3412C Dash 8 Series P42 Series ACR-44 Total Condition Existing - SACRAMENTO Design - SACRAMENTO Existing - ROSEVILLE	0.0 0.0 0.0 0.0 0.4 0.3 0.0 0.8 ROG 6 1	0.0 0.0 0.0 0.0 9.7 5.8 0.0 15.5 NOX 115 21 51	0.0 0.0 0.0 0.0 1.7 0.9 0.0 2.6 CO 28 27 11	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5 PM10 4 0	0.0 0.0 0.0 0.0 0.3 0.2 0.0 0.5 PM2.5 4 0 2	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.8 1.0 0.6 0.0 658.1 329.1 0.0 990.3 CO2 10,757 10,495 4,225	0.0 0.0 0.0 0.0 0.1 0.0 0.0 0.1 CH4 1	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 12.7	0.0 0.0 0.0 0.0 0.0 16.2 16.2 Track Miles SMAQMD	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.2 0.2	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 6219.4	0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	Loco EF Loco EF

NET Tons and metric tons per year

Locomotive					Traction - Ex	kisting							Tr	action - Desig	gn			
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.9	16.2	4.2	0.6	0.6	0.0	1,456	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
F59 Series 3412C	0.2	4.0	1.0	0.1	0.1	0.0	364	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Dash 8 Series	0.2	3.8	0.7	0.1	0.1	0.0	234	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
P42 Series	0.2	3.2	0.5	0.1	0.1	0.0	165	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	7.0	9.0	0.1	0.1	0.0	3,118	0.2	0.1
Total	1.5	27.2	6.4	1.0	0.9	0.0	2,219	0.2	0.1	0.3	7.0	9.0	0.1	0.1	0.0	3,118	0.2	0.1

Locomotive					HEP - Exis	ting								HEP - Design				
Locomotive	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series C15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
F59 Series 3412C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dash 8 Series	0.0	0.1	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P42 Series	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ACR-44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	30.0	0.0	0.0
Total	0.0	0.1	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	30.0	0.0	0.0

Offroad EF
Offroad EF
Offroad EF
Offroad EF
Loco EF
Loco EF
Loco EF

Condition	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Existing	1	27	6	1	1	0	2,223	0	0
Design	0	7	9	0	0	0	3,148	0	0

 pounds per gram
 0.002205

 tons per gram
 1.10E-06

 mt per gram
 1.00E-06

Locomotive Details

			Traction				Tra	ction - Existir	ng	Traction - Design			
Locomotive	Tier	Fuel (gal/hr)	Exis	ting	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	
	Hei	ruei (gai/iii)	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	
F59 Series C15	2	63	12	67%	0	0%	7	5	2270	0	0	0	
F59 Series 3412C	2	63	3	17%	0	0%	2	1	568	0	0	0	
Dash 8 Series	0+	61	2	11%	0	0%	1	1	378	0	0	0	
P42 Series	0	85	1	6%	0	0%	1	0	189	0	0	0	
ACR-44	4	90	0	0%	24	100%	0	0	0	10	7	3405	
Total	-	-	18	100%	24	100%	10.4	7.0	3,405	10.4	7.0	3,405	

			HEP				HEP - E	xisting Sacrar	mento	HEP	- Existing Ros	eville	HEP -	Design Sacra	mento	HEP	- Design Rose	eville
Locomotive	Tier	Fuel (gal/hr)	Exis	ting	De	sign	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual	Weekday	Weekend	Annual
	Her	ruei (gai/iii)	#	%	#	%	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)	(hr/day)	(hr/day)	(hr/yr)
F59 Series C15	3	21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series C15	4-I	21	4	22%	0	0%	-2	-1	-653	2	1	676	0	0	0	0	0	0
F59 Series C15	4	21	5	28%	0	0%	-3	-2	-817	3	2	844	0	0	0	0	0	0
F59 Series 3412C	0	21	3	17%	0	0%	-2	-1	-490	2	1	507	0	0	0	0	0	0
F59 Series 3412C	4-I	21	0	0%	0	0%	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	0+	28	2	11%	0	0%	-1	-1	-327	1	1	338	0	0	0	0	0	0
P42 Series	0	28	1	6%	0	0%	-1	0	-163	1	0	169	0	0	0	0	0	0
ACR-44	4	29	0	0%	24	100%	0	0	0	0	0	0	-9	-6	-2940	9	6	3040
Total	-	-	18	100%	24	100%	-9.0	-6.0	-2,940	9.4	6.0	3,040	-9.0	-6.0	-2,940	9.4	6.0	3,040

NET gallons and BTU - WeekDAY (max) and Annual

		Gallons	s-Diesel			Combustion	BTU (million)		Total BTU (million)				
Locomotive	Traction	- Existing	Traction	- Design	Traction	- Existing	Traction	- Design	Traction	- Existing	Traction	- Design	
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	
F59 Series C15	436	142,621	0	0	56	18,468	0	0	68	22,358	0	0	
F59 Series 3412C	109	35,655	0	0	14	4,617	0	0	17	5,589	0	0	
Dash 8 Series	70	22,905	0	0	9	2,966	0	0	11	3,591	0	0	
P42 Series	49	16,161	0	0	6	2,093	0	0	8	2,533	0	0	
ACR-44	0	0	933	305,439	0	0	121	39,551	0	0	146	47,882	
Total	664	217,341	933	305,439	86	28,143	121	39,551	104	34,072	146	47,882	

		Gallon	s-Diesel			Combustion	BTU (million)			Total BTU	J (million)	
Locomotive	HEP - E	xisting	HEP -	Design	HEP - I	xisting	HEP -	Design	HEP - E	xisting	HEP -	Design
	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual	Daily	Annual
F59 Series C15	1	350	0	0	0	45	0	0	0	55	0	0
F59 Series C15	2	467	0	0	0	60	0	0	0	73	0	0
F59 Series C15	2	583	0	0	0	76	0	0	0	91	0	0
F59 Series 3412C	1	350	0	0	0	45	0	0	0	55	0	0
F59 Series 3412C	0	0	0	0	0	0	0	0	0	0	0	0
Dash 8 Series	1	311	0	0	0	40	0	0	0	49	0	0
P42 Series	1	156	0	0	0	20	0	0	0	24	0	0
ACR-44	0	0	12	2,940	0	0	2	381	0	0	2	461
Total	9	2,217	12	2,940	1	287	2	381	1	347	2	461

	Gallons	s-Diesel	Combus	tion BTU	Tota	I BTU
Condition	Daily	Annual	Daily	Annual	Daily	Annual
Existing	673	219,558	87	28,430	105	34,419
Design	945 308,379		122 39,931		148	48,343

 Fuel
 Combustion
 Total
 Unit

 Gasoline
 113,927
 138,766
 BTU/Gal

 Diesel
 129,488
 156,765
 BTU/Gal

Million 1,000,000

Future Locomotives in Use for Capitol Corridor Service for Air Quality Analysis purposes

Loco #	Name	Traction Power Engine	2015	(base)	2035 (design)	HEP Power Engine	2015	(base)	2035 (design)
			Tier#	#	Tier#	#		Tier#	#	Tier#	#
2001	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2002	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2003	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2004	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2005	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2006	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2007	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2008	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2009	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2010	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2011	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	4	1	4	0
2012	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2013	F59 Series 3412C	EMD710 ECO	2	1	2	0	CAT 3412	0	1	4-I	0
2014	F59 Series C15	EMD710 ECO	2	1	2	0	CAT - C-15i	4-I	1	4-I	0
2015	F59 Series C15	EMD710 ECO	2	1	2	0	CAT C-15	3	1	4-I	0
2051	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	0	Part of main engine	0+	1	0+	0
2052	Dash 8 Series	Gen. Elect 7FLDN	0+	1	0+	0	Part of main engine	0+	1	0+	0
Qty. 4-7 #1-207	P42 Series	Gen. Elect. P-42	0	1	0	0	main engine	0	1	0	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	24	AC traction part of eng. Sys			4	24
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0
New Loco CDTXxxx	ACR-44	Cummings QSK95			4	0	AC traction part of eng. Sys			4	0

HEP upgrade to Tier 4-I is expected to complete in March 2015, replacing the existing Tier III and the 3412 series engines
Two GE P32-8 locomotives are being currently reviewed for their potential future possible rebuild to latest EPA emissions technology available on these types of engines

2008 fleet mix is equal to 2015 mix; thereafter, new locomotives will be phased

			Traction			
Locomotive	Tier	2015	(base)	2035 (design)		
	Her	#	%	#	%	
F59 Series C15	2	12	67%	0	0%	
F59 Series 3412C	2	3	17%	0	0%	
Dash 8 Series	0+	2	11%	0	0%	
P42 Series	0	1	6%	0	0%	
ACR-44	4	0	0%	24	100%	
Total	-	18	100%	24	100%	
		^				

			HEP		
Locomotive	Tier	2015	(base)	2035 (design)
	Hei	#	%	#	%
F59 Series C15	3	3	17%	0	0%
F59 Series C15	4-1	4	22%	0	0%
F59 Series C15	4	5	28%	0	0%
F59 Series 3412C	0	3	17%	0	0%
F59 Series 3412C	4-1	0	0%	0	0%
Dash 8 Series	0+	2	11%	0	0%
P42 Series	0	1	6%	0	0%
ACR-44	4	0	0%	24	100%
Total		18	100%	24	100%

Capitol Corridor Service Increment - Sacramento to Roseville 3rd Track Project

	Daily minutes shown for	each additional train between	n Sacramento and Roseville inclu	e travel time in rolling operation	and idle time								and Weekend/	f Weekday service Holiday Schedule per year			
		Typical Weekday Day			Typical Weekend Day		Weeko	lay Conversion to Daily Hours	of service	Weekend/H	oliday Conversion to Daily Ho	urs of service	Weekday Ops/year	Weekend-Holiday Ops/Year	Running Time Hours/year	Idle Time Hours/Yea Sac	Idle Time Hours/Year Rose
Added Trips	Running Time (min)	Idle (HEP) Time Sac (min)	Idle (HEP) Time Rose (min)	Running Time (min)	Idle (HEP) Time Sac (min)	Idle (HEP) Time Rose (min)	Running Time (hr)	Idle (HEP) Time Sac (hr)	Idle (HEP) Time Rose (hr)	Running Time (hr)	Idle (HEP) Time Sac (hr)	Idle (HEP) Time Rose (hr)	250	115	3405	-2940	3040
Trip #1	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50				•	
Trip #2	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #3	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50	1				
Trip #4	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #5	33	-30	46	33	-30	30	0.550	-0.500	0.767	0.55	-0.50	0.50					
Trip #6	33	-30	30	33	-30	30	0.550	-0.500	0.500	0.55	-0.50	0.50					
Trip #7	33	-30	30	37	-30	30	0.550	-0.500	0.500	0.62	-0.50	0.50					
Trip #8	33	-30	34	37	-30	30	0.550	-0.500	0.567	0.62	-0.50	0.50					
Trip #9	33	-30	30	37	-30	30	0.550	-0.500	0.500	0.62	-0.50	0.50					
Trip #10	34	-30	30	37	-30	30	0.567	-0.500	0.500	0.62	-0.50	0.50					
Trip #11	34	-30	30	37	-30	30	0.567	-0.500	0.500	0.62	-0.50	0.50					
Trip #12	37	-30	30	37	-30	30	0.617	-0.500	0.500	0.62	-0.50	0.50					
Trip #13	37	-30	30				0.617	-0.500	0.500								
Trip #14	37	-30	30				0.617	-0.500	0.500								
Trip #15	37	-30	30				0.617	-0.500	0.500								
Trip #16	37	-30	34				0.617	-0.500	0.567				I				
Trip #17	37	-30	30				0.617	-0.500	0.500								
Trip #18	37	-30	30				0.617	-0.500	0.500								
TOTALS	624	-540	564	420	-360	360	10.4	-9	9.4	7	-6	6					

Sources and Assumptions:

On the source for running times and idle (HEP) times. These values are based on travel schedules and estimated byover hours required for each trip which vary based on the schedule. Weeking service acids an additional 5 round trips or 12 daily trains; weekend/holiday schedules add an additional 6 round trips or 12 daily trains.

The HEP is subject to the ARB offroad standards. ONLY the P59 has a separate HEP engine. All other locomotives utilize the traction engine for hoteling.

Engine Tier					Power Engine	(g/gal)				Engine Tier		500 kW	HEP Engin	e (g/gal) [OI	NLY FOR SEP	ARATE HEP	ENGINE ON	l F59]	
Engine Her	ROG	NOX	co	PM10	PM2.5	SO2	CO2	CH4	N2O	Eligille Hei	ROG	NOX	со	PM10	PM2.5	SO2	CO2	CH4	N2O
0	10.51	178.88	26.62	6.66	6.46	0.09	10,208	0.80	0.26	0	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
0+	6.57	149.76	26.62	4.16	4.04	0.09	10,208	0.80	0.26	0+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1	10.29	139.36	26.62	6.66	6.46	0.09	10,208	0.80	0.26	1	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
1+	6.35	139.36	26.62	4.16	4.04	0.09	10,208	0.80	0.26	1+	0.05	0.35	0.44	0.02	0.02	0.04	8	0.00	0.00
2	5.69	102.96	26.62	3.74	3.63	0.09	10,208	0.80	0.26	2	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
2+	2.85	102.96	26.62	1.66	1.61	0.09	10,208	0.80	0.26	2+	0.01	0.23	0.13	0.01	0.01	0.04	9	0.00	0.00
3	2.85	102.96	26.62	1.66	1.61	0.09	10208	0.80	0.26	3	0.01	0.15	0.13	0.01	0.01	0.04	9	0.00	0.00
4-I	-	-	-	-	-	-	-	-	-	4-I	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00
4	0.88	20.80	26.62	0.31	0.30	0.09	10,208	0.80	0.26	4	0.01	0.02	0.13	0.00	0.00	0.03	9	0.00	0.00

EPA 2009, Table 1 http://www.epa.gov/nonroad/locomotv/420f09025.pdf

Climate Registry http://www.theclimateregistry.org/downloads/2014/02/2014-Climate-Registry-Default-Emissions-Factors.pdf

VOC_HC 1.053 PM2.5 PM10 0.97

bhp-hr/gal 20.8 EPA 2011

SO2 (g/gal) = 0.09 based on:

(fuel density) x (conversion factor) x (64 g SO2 / 32 g S) x (S content of fuel)

fuel density 3200 g/gal
conversion factor 0.978 (fraction of fuel sulfur convered to so2)
64 / 32 2

S content of fuel 1.50E-05 15 ppm

http://www.arb.ca.gov/regact/carblohc/ruid.pdf

EPA 2009 http://www.epa.gov/otaq/models/nonrdmdl/nonrdmdl2010/420r10018.pdf

See: C-I Emission Rates.xls

N2O_CO2 Dia 2.5465E-05 Climate Registry 2014 CH4_CO2 Dia 5.6807E-05 Climate Registry 2014

CO2 (g/gal) = 10208 based on: (fuel density) x (44 g CO2 / 12 g C) x (C content of fuel)

(tuel density) x (44 g CO2 / 12 g C) x (C content of tuel)
fuel density 3200 g/gal
44 / 12 3.666666667
C content of fuel 8.70E-01 87% by mass

1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10

		Idle-HEP Mode	Traction	Notes
Locomotive	Engine Tier	Fuel (gal/hr)	Fuel (gal/hr)	Notes
F59 Series C15	3	21	63	HEP is separate engine (500 KW)
F59 Series C15	4-I	21	63	HEP is separate engine (500 KW)
F59 Series C15	4	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	0	21	63	HEP is separate engine (500 KW)
F59 Series 3412C	4-1	21	63	HEP is separate engine (500 KW)
Dash 8 Series	0+	28	61	HEP is part of main engine
P42 Series	0	28	85	HEP is part of main engine
ACR-44	4	29	90	HEP is part of main engine

See: Locomotive Weighted Fuel Consumption Rate.xls

Health Risk Assessment

```
** Lakes Environmental AERMOD MPI
**
************
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/18/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
CONSTUCT\AERMOD LAYOVER CONSTRUCT.ADI
***********
**
**
************
** AERMOD CONTROL PATHWAY
************
**
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACREMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER CONSTRUCT.ERR"
CO FINISHED
**
***********
** AERMOD SOURCE PATHWAY
************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** -----
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE21
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000116
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 9
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** 649987.745, 4291180.599, 52.57, 3.40, 12.39
** 650122.346, 4291253.260, 53.13, 3.40, 12.39
** 650180.713, 4291277.083, 53.34, 3.40, 12.39
** 650202.154, 4291285.421, 53.39, 3.40, 12.39
** 650285.535, 4291310.436, 53.65, 3.40, 12.39
** 650386.784, 4291334.259, 52.10, 3.40, 12.39
** 650471.356, 4291343.788, 49.96, 3.40, 12.39
** 650496.370, 4291355.700, 49.90, 3.40, 12.39
** 650745.323, 4291364.038, 52.75, 3.40, 12.39
   LOCATION L0000001
                         VOLUME
                                  649993.606 4291183.763 52.59
   LOCATION L0000002
                         VOLUME
                                  650017.048 4291196.418 52.69
                         VOLUME
                                  650040.490 4291209.072 52.79
   LOCATION L0000003
   LOCATION L0000004
                         VOLUME
                                  650063.933 4291221.727 52.89
   LOCATION L0000005
                         VOLUME
                                  650087.375 4291234.382 52.98
   LOCATION L0000006
                         VOLUME
                                  650110.818 4291247.037 53.08
   LOCATION L0000007
                         VOLUME
                                  650134.881 4291258.376 53.18
   LOCATION L0000008
                         VOLUME
                                  650159.546 4291268.443 53.26
   LOCATION L0000009
                         VOLUME
                                  650184.234 4291278.452 53.35
                                  650209.254 4291287.551 53.41
   LOCATION L0000010
                         VOLUME
   LOCATION L0000011
                         VOLUME
                                  650234.770 4291295.206 53.49
   LOCATION L0000012
                         VOLUME
                                  650260.287 4291302.861 53.57
   LOCATION L0000013
                         VOLUME
                                  650285.807 4291310.500 53.65
   LOCATION L0000014
                                  650311.739 4291316.601 53.25
                         VOLUME
                                  650337.671 4291322.703 52.85
   LOCATION L0000015
                         VOLUME
   LOCATION L0000016
                         VOLUME
                                  650363.603 4291328.805 52.45
   LOCATION L0000017
                         VOLUME
                                  650389.592 4291334.575 52.03
   LOCATION L0000018
                         VOLUME
                                  650416.065 4291337.558 51.36
   LOCATION L0000019
                         VOLUME
                                  650442.537 4291340.541 50.69
                                  650469.010 4291343.524 50.02
   LOCATION L0000020
                         VOLUME
                                  650493.276 4291354.226 49.91
   LOCATION L0000021
                         VOLUME
                                  650519.570 4291356.477 50.17
   LOCATION L0000022
                         VOLUME
   LOCATION L0000023
                         VOLUME
                                  650546.195 4291357.368 50.47
   LOCATION L0000024
                         VOLUME
                                  650572.821 4291358.260 50.78
                                  650599.446 4291359.152 51.08
   LOCATION L0000025
                         VOLUME
   LOCATION L0000026
                         VOLUME
                                  650626.071 4291360.044 51.38
                                  650652.696 4291360.935 51.69
   LOCATION L0000027
                         VOLUME
   LOCATION L0000028
                                  650679.321 4291361.827 51.99
                         VOLUME
   LOCATION L0000029
                         VOLUME
                                  650705.946 4291362.719 52.30
   LOCATION L0000030
                         VOLUME
                                  650732.571 4291363.611 52.60
** END OF LINE VOLUME SOURCE ID = SLINE21
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE31
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000116
```

** ELEVATED

```
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 12
** 650749.382, 4291365.900, 52.80, 3.40, 12.39
** 650769.869, 4291354.193, 53.32, 3.40, 12.39
** 650791.088, 4291354.193, 54.12, 3.40, 12.39
** 650851.817, 4291356.389, 57.08, 3.40, 12.39
** 650904.497, 4291360.779, 59.63, 3.40, 12.39
** 650969.616, 4291360.047, 61.96, 3.40, 12.39
** 651015.712, 4291355.657, 55.86, 3.40, 12.39
** 651047.905, 4291351.267, 55.97, 3.40, 12.39
** 651094.001, 4291343.950, 62.58, 3.40, 12.39
** 651145.218, 4291327.122, 60.86, 3.40, 12.39
** 651181.801, 4291313.220, 59.05, 3.40, 12.39
** 651213.995, 4291296.391, 56.93, 3.40, 12.39
   LOCATION L0004925
                        VOLUME
                                 650755.165 4291362.596 52.95
                                 650779.573 4291354.193 53.69
   LOCATION L0004926
                        VOLUME
   LOCATION L0004927
                        VOLUME
                                 650806.203 4291354.740 54.86
                        VOLUME
                                 650832.826 4291355.702 56.15
   LOCATION L0004928
   LOCATION L0004929
                        VOLUME
                                 650859.427 4291357.023 57.45
   LOCATION L0004930
                        VOLUME
                                 650885.975 4291359.235 58.73
   LOCATION L0004931
                        VOLUME
                                 650912.551 4291360.688 59.92
   LOCATION L0004932
                        VOLUME
                                 650939.189 4291360.389 60.87
   LOCATION L0004933
                                 650965.827 4291360.089 61.82
                        VOLUME
   LOCATION L0004934
                        VOLUME
                                 650992.364 4291357.880 58.95
   LOCATION L0004935
                        VOLUME
                                 651018.869 4291355.226 55.87
   LOCATION L0004936
                        VOLUME
                                 651045.265 4291351.627 55.96
   LOCATION L0004937
                        VOLUME
                                 651071.584 4291347.508 59.37
   LOCATION L0004938
                        VOLUME
                                 651097.746 4291342.719 62.45
                                 651123.055 4291334.404 61.60
   LOCATION L0004939
                        VOLUME
   LOCATION L0004940
                                 651148.314 4291325.945 60.71
                        VOLUME
  LOCATION L0004941
                        VOLUME
                                 651173.216 4291316.482 59.47
   LOCATION L0004942
                        VOLUME
                                 651197.271 4291305.133 58.03
** END OF LINE VOLUME SOURCE ID = SLINE31
   LOCATION VOL41
                        VOLUME
                                 649972.110 4291194.820
                                                                53.080
** DESCRSRC HAUL TRUCK ROUTE
** ______
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE51
** DESCRSRC MOVING TRAIN BALLAST DELIVERY
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 3.28E-07
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 12
** 648625.012, 4291380.197, 48.69, 5.65, 11.16
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** 649080.310, 4290820.972, 49.74, 5.65, 11.16
** 649175.989, 4290754.987, 49.69, 5.65, 11.16
** 649235.376, 4290725.293, 49.89, 5.65, 11.16
** 649281.565, 4290718.695, 49.68, 5.65, 11.16
** 649336.003, 4290731.892, 49.81, 5.65, 11.16
** 649395.390, 4290774.782, 50.00, 5.65, 11.16
** 649664.280, 4290984.286, 51.65, 5.65, 11.16
** 649962.864, 4291218.533, 53.58, 5.65, 11.16
** 650101.433, 4291291.117, 53.69, 5.65, 11.16
** 650320.834, 4291368.650, 53.75, 5.65, 11.16
** 650498.994, 4291401.643, 53.85, 5.65, 11.16
** ______
   LOCATION L0004943
                         VOLUME
                                  648628.800 4291375.544 48.70
   LOCATION L0004944
                         VOLUME
                                  648643.953 4291356.933 48.73
   LOCATION L0004945
                         VOLUME
                                  648659.106 4291338.321 48.77
   LOCATION L0004946
                         VOLUME
                                  648674.258 4291319.710 48.80
   LOCATION L0004947
                         VOLUME
                                  648689.411 4291301.098 48.84
   LOCATION L0004948
                         VOLUME
                                  648704.564 4291282.486 48.87
   LOCATION L0004949
                         VOLUME
                                  648719.717 4291263.875 48.91
                                  648734.870 4291245.263 48.94
   LOCATION L0004950
                         VOLUME
   LOCATION L0004951
                         VOLUME
                                  648750.022 4291226.652 48.98
   LOCATION L0004952
                         VOLUME
                                  648765.175 4291208.040 49.01
   LOCATION L0004953
                         VOLUME
                                  648780.328 4291189.428 49.05
   LOCATION L0004954
                                  648795.481 4291170.817 49.08
                         VOLUME
                                  648810.634 4291152.205 49.12
   LOCATION L0004955
                         VOLUME
   LOCATION L0004956
                         VOLUME
                                  648825.787 4291133.593 49.15
   LOCATION L0004957
                         VOLUME
                                  648840.939 4291114.982 49.19
   LOCATION L0004958
                         VOLUME
                                  648856.092 4291096.370 49.22
   LOCATION L0004959
                         VOLUME
                                  648871.245 4291077.759 49.26
                                  648886.398 4291059.147 49.29
   LOCATION L0004960
                         VOLUME
                                  648901.551 4291040.535 49.33
   LOCATION L0004961
                         VOLUME
   LOCATION L0004962
                         VOLUME
                                  648916.703 4291021.924 49.36
   LOCATION L0004963
                                  648931.856 4291003.312 49.40
                         VOLUME
   LOCATION L0004964
                         VOLUME
                                  648947.009 4290984.701 49.43
   LOCATION L0004965
                                  648962.162 4290966.089 49.47
                         VOLUME
   LOCATION L0004966
                         VOLUME
                                  648977.315 4290947.477 49.50
                                  648992.468 4290928.866 49.54
   LOCATION L0004967
                         VOLUME
                                  649007.620 4290910.254 49.57
   LOCATION L0004968
                         VOLUME
   LOCATION L0004969
                         VOLUME
                                  649022.773 4290891.643 49.61
   LOCATION L0004970
                                  649037.926 4290873.031 49.64
                         VOLUME
   LOCATION L0004971
                         VOLUME
                                  649053.079 4290854.419 49.68
   LOCATION L0004972
                                  649068.232 4290835.808 49.71
                         VOLUME
   LOCATION L0004973
                         VOLUME
                                  649084.319 4290818.208 49.74
   LOCATION L0004974
                         VOLUME
                                  649104.076 4290804.582 49.73
   LOCATION L0004975
                         VOLUME
                                  649123.833 4290790.956 49.72
   LOCATION L0004976
                         VOLUME
                                  649143.590 4290777.331 49.71
   LOCATION L0004977
                                  649163.347 4290763.705 49.70
                         VOLUME
   LOCATION L0004978
                         VOLUME
                                  649183.720 4290751.121 49.72
                                  649205.186 4290740.388 49.79
   LOCATION L0004979
                         VOLUME
   LOCATION L0004980
                         VOLUME
                                  649226.652 4290729.655 49.86
```

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LOCATION L0004981
                      VOLUME
                               649249.479 4290723.278 49.83
LOCATION L0004982
                               649273.238 4290719.884 49.72
                      VOLUME
LOCATION L0004983
                      VOLUME
                               649296.715 4290722.367 49.72
LOCATION L0004984
                      VOLUME
                               649320.039 4290728.022 49.77
LOCATION L0004985
                               649342.143 4290736.326 49.83
                      VOLUME
LOCATION L0004986
                      VOLUME
                               649361.599 4290750.378 49.89
                               649381.055 4290764.429 49.95
LOCATION L0004987
                      VOLUME
LOCATION L0004988
                      VOLUME
                               649400.374 4290778.665 50.03
LOCATION L0004989
                               649419.306 4290793.416 50.15
                      VOLUME
LOCATION L0004990
                               649438.238 4290808.166 50.26
                      VOLUME
LOCATION L0004991
                      VOLUME
                               649457.170 4290822.917 50.38
                               649476.101 4290837.668 50.50
LOCATION L0004992
                      VOLUME
LOCATION L0004993
                      VOLUME
                               649495.033 4290852.418 50.61
LOCATION L0004994
                      VOLUME
                               649513.965 4290867.169 50.73
LOCATION L0004995
                      VOLUME
                               649532.897 4290881.920 50.84
LOCATION L0004996
                               649551.829 4290896.670 50.96
                      VOLUME
LOCATION L0004997
                      VOLUME
                               649570.761 4290911.421 51.08
LOCATION L0004998
                               649589.693 4290926.172 51.19
                      VOLUME
                               649608.625 4290940.922 51.31
LOCATION L0004999
                      VOLUME
                      VOLUME
LOCATION L0005000
                               649627.557 4290955.673 51.42
                               649646.489 4290970.424 51.54
LOCATION L0005001
                      VOLUME
LOCATION L0005002
                      VOLUME
                               649665.418 4290985.178 51.66
                               649684.300 4290999.992 51.78
LOCATION L0005003
                      VOLUME
LOCATION L0005004
                               649703.183 4291014.806 51.90
                      VOLUME
LOCATION L0005005
                      VOLUME
                               649722.065 4291029.620 52.02
LOCATION L0005006
                      VOLUME
                               649740.948 4291044.434 52.15
LOCATION L0005007
                      VOLUME
                               649759.830 4291059.248 52.27
LOCATION L0005008
                      VOLUME
                               649778.713 4291074.061 52.39
LOCATION L0005009
                      VOLUME
                               649797.595 4291088.875 52.51
                               649816.478 4291103.689 52.63
LOCATION L0005010
                      VOLUME
LOCATION L0005011
                      VOLUME
                               649835.360 4291118.503 52.76
LOCATION L0005012
                      VOLUME
                               649854.243 4291133.317 52.88
LOCATION L0005013
                      VOLUME
                               649873.125 4291148.131 53.00
                      VOLUME
LOCATION L0005014
                               649892.008 4291162.945 53.12
LOCATION L0005015
                      VOLUME
                               649910.890 4291177.759 53.24
                               649929.773 4291192.573 53.37
LOCATION L0005016
                      VOLUME
LOCATION L0005017
                      VOLUME
                               649948.655 4291207.386 53.49
LOCATION L0005018
                      VOLUME
                               649968.126 4291221.290 53.58
LOCATION L0005019
                      VOLUME
                               649989.386 4291232.426 53.60
LOCATION L0005020
                      VOLUME
                               650010.646 4291243.562 53.62
LOCATION L0005021
                      VOLUME
                               650031.906 4291254.699 53.63
LOCATION L0005022
                      VOLUME
                               650053.166 4291265.835 53.65
                               650074.426 4291276.971 53.67
LOCATION L0005023
                      VOLUME
LOCATION L0005024
                               650095.686 4291288.107 53.69
                      VOLUME
LOCATION L0005025
                               650117.945 4291296.952 53.69
                      VOLUME
LOCATION L0005026
                      VOLUME
                               650140.573 4291304.949 53.70
LOCATION L0005027
                      VOLUME
                               650163.202 4291312.945 53.71
                               650185.831 4291320.942 53.71
LOCATION L0005028
                      VOLUME
                      VOLUME
LOCATION L0005029
                               650208.459 4291328.939 53.72
LOCATION L0005030
                      VOLUME
                               650231.088 4291336.935 53.73
```

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LOCATION L0005031
                                650253.716 4291344.932 53.73
                        VOLUME
  LOCATION L0005032
                        VOLUME
                                650276.345 4291352.928 53.74
  LOCATION L0005033
                        VOLUME
                                650298.974 4291360.925 53.74
  LOCATION L0005034
                        VOLUME
                                650321.635 4291368.798 53.75
  LOCATION L0005035
                        VOLUME
                                650345.234 4291373.168 53.76
  LOCATION L0005036
                        VOLUME
                                650368.833 4291377.539 53.78
  LOCATION L0005037
                        VOLUME
                                650392.432 4291381.909 53.79
                        VOLUME
   LOCATION L0005038
                                650416.030 4291386.279 53.80
   LOCATION L0005039
                        VOLUME
                                650439.629 4291390.649 53.82
                                650463.228 4291395.019 53.83
  LOCATION L0005040
                        VOLUME
  LOCATION L0005041
                        VOLUME
                                650486.827 4291399.389 53.84
** END OF LINE VOLUME SOURCE ID = SLINE51
   LOCATION VOL1
                                  650665.251 4291406.930
                        VOLUME
                                                               53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION EQUIPMENT TRUCKS
   LOCATION VOL2
                        VOLUME
                                  650563.968 4291398.425
                                                                53.160
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST WORK AREA #2
   LOCATION VOL3
                        VOLUME
                                  650456.370 4291399.520
                                                                53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION EQUIPMENT EXHAUST
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE43
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 8
** 650396.283, 4291415.230, 53.09, 3.40, 40.47
** 650339.492, 4291407.868, 54.51, 3.40, 40.47
** 650291.115, 4291397.351, 54.58, 3.40, 40.47
** 650226.962, 4291374.214, 54.26, 3.40, 40.47
** 650171.223, 4291357.387, 54.56, 3.40, 40.47
** 650088.140, 4291323.733, 54.83, 3.40, 40.47
** 649981.921, 4291266.943, 52.81, 3.40, 40.47
** 649931.440, 4291236.444, 52.99, 3.40, 40.47
** ______
  LOCATION L0005042
                        VOLUME 650353.144 4291409.638 54.17
  LOCATION L0005043
                        VOLUME 650268.796 4291389.301 54.47
  LOCATION L0005044
                        VOLUME 650186.248 4291361.923 54.48
                        VOLUME 650105.134 4291330.617 54.77
   LOCATION L0005045
   LOCATION L0005046
                        VOLUME 650027.586 4291291.358 53.68
                       VOLUME
   LOCATION L0005047
                                649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE43
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE44
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3
```

```
** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 3
** 649898.118, 4291201.738, 52.60, 3.40, 26.51
** 649581.371, 4290941.907, 50.98, 3.40, 26.51
** 649582.608, 4290945.618, 50.95, 3.40, 26.51
** ______
  LOCATION L0005048
                        VOLUME 649876.084 4291183.663 52.49
  LOCATION L0005049 VOLUME 649832.014 4291147.512 52.26 LOCATION L0005050 VOLUME 649787.945 4291111.362 52.04 LOCATION L0005051 VOLUME 649743.875 4291075.211 51.81
  LOCATION L0005052 VOLUME 649699.806 4291039.060 51.59
LOCATION L0005053 VOLUME 649655.736 4291002.909 51.36
LOCATION L0005054 VOLUME 649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE44
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE45
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649582.567, 4290938.264, 50.99, 3.40, 36.74
** 649458.557, 4290838.151, 50.39, 3.40, 36.74
** _____
  LOCATION L0005055 VOLUME 649551.832 4290913.452 50.84 LOCATION L0005056 VOLUME 649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE45
** _____
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE46
** DESCRSRC CONSTRUCITON EQUIPMENT EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
```

```
** 649445.530, 4290815.617, 50.23, 3.40, 23.26
** 649303.390, 4290698.508, 49.82, 3.40, 23.26
** ______
  LOCATION L0005057 VOLUME 649426.235 4290799.720 50.17 LOCATION L0005058 VOLUME 649387.646 4290767.926 50.06 LOCATION L0005059 VOLUME 649349.056 4290736.133 49.95 LOCATION L0005060 VOLUME 649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE46
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE47
** DESCRSRC CONSTRUCTION EQUIPMENT TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000159
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649138.007, 4290774.495, 49.32, 3.40, 11.63
** 649266.737, 4290695.826, 49.56, 3.40, 11.63
**
   LOCATION L0005061 VOLUME 649148.673 4290767.977 49.34 LOCATION L0005062 VOLUME 649170.005 4290754.941 49.38
  LOCATION L0005063 VOLUME 649191.337 4290741.904 49.42 LOCATION L0005064 VOLUME 649212.669 4290728.868 49.46 LOCATION L0005065 VOLUME 649234.001 4290715.832 49.50 LOCATION L0005066 VOLUME 649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE47
                                    650665.251 4291406.930 53.240
   LOCATION VOL12 VOLUME
** DESCRSRC WORK AREA 1 -CONSTRUCTION PICKUP TRUCKS
   LOCATION VOL22 VOLUME 650563.968 4291398.425
                                                                       53.160
** DESCRSRC CONSTRUCTION EQUIPMENT PICKUP EXHAUST WORK AREA #2
   LOCATION VOL32 VOLUME 650456.370 4291399.520
                                                                       53,930
** DESCRSRC WORK AREA #3 CONSTRUCTION PICKUP TRUCK EXHAUST
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE432
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 8
** 650396.283, 4291415.230, 53.09, 1.30, 40.47
** 650339.492, 4291407.868, 54.51, 1.30, 40.47
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** 650291.115, 4291397.351, 54.58, 1.30, 40.47
** 650226.962, 4291374.214, 54.26, 1.30, 40.47
** 650171.223, 4291357.387, 54.56, 1.30, 40.47
** 650088.140, 4291323.733, 54.83, 1.30, 40.47
** 649981.921, 4291266.943, 52.81, 1.30, 40.47
** 649931.440, 4291236.444, 52.99, 1.30, 40.47
** _____
  LOCATION L0005067
                       VOLUME 650353.144 4291409.638 54.17
  LOCATION L0005068
                       VOLUME
                               650268.796 4291389.301 54.47
  LOCATION L0005069 VOLUME 650186.248 4291361.923 54.48 LOCATION L0005070 VOLUME 650105.134 4291330.617 54.77
  LOCATION L0005071
                     VOLUME 650027.586 4291291.358 53.68
  LOCATION L0005072 VOLUME
                               649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE432
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE444
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 3
** 649898.118, 4291201.738, 52.60, 1.30, 26.51
** 649581.371, 4290941.907, 50.98, 1.30, 26.51
** 649582.608, 4290945.618, 50.95, 1.30, 26.51
** _____
                       VOLUME 649876.084 4291183.663 52.49
  LOCATION L0005073
  LOCATION L0005074
                     VOLUME 649832.014 4291147.512 52.26
  LOCATION L0005075 VOLUME 649787.945 4291111.362 52.04 LOCATION L0005076 VOLUME 649743.875 4291075.211 51.81
  LOCATION L0005077
                     VOLUME 649699.806 4291039.060 51.59
  LOCATION L0005078 VOLUME 649655.736 4291002.909 51.36 LOCATION L0005079 VOLUME 649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE444
** _____
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE452
** DESCRSRC CONSTRUCTION PICKUP TRUCK EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
```

```
** 649582.567, 4290938.264, 50.99, 1.30, 36.74
** 649458.557, 4290838.151, 50.39, 1.30, 36.74
** ______
  LOCATION L0005080
                     VOLUME 649551.832 4290913.452 50.84
  LOCATION L0005081 VOLUME 649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE452
** _______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE462
** DESCRSRC CONSTRUCITON PICKUP TUCK EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649445.530, 4290815.617, 50.23, 1.30, 23.26
** 649303.390, 4290698.508, 49.82, 1.30, 23.26
** ______
  LOCATION L0005082
LOCATION L0005083
                     VOLUME 649426.235 4290799.720 50.17
                    VOLUME 649387.646 4290767.926 50.06
  LOCATION L0005084 VOLUME 649349.056 4290736.133 49.95 LOCATION L0005085 VOLUME 649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE462
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE472
** DESCRSRC CONSTRUCTION PICKUP TRUCK TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649138.007, 4290774.495, 49.32, 1.30, 11.63
** 649266.737, 4290695.826, 49.56, 1.30, 11.63
** ______
                     VOLUME 649148.673 4290767.977 49.34
  LOCATION L0005086
  LOCATION L0005087
                     VOLUME
                            649170.005 4290754.941 49.38
                    VOLUME 649191.337 4290741.904 49.42
  LOCATION L0005088
                    VOLUME 649212.669 4290728.868 49.46
  LOCATION L0005089
  LOCATION L0005090
                    VOLUME 649234.001 4290715.832 49.50
                  VOLUME 649255.333 4290702.796 49.54
  LOCATION L0005091
** END OF LINE VOLUME SOURCE ID = SLINE472
** SOURCE PARAMETERS **
** LINE VOLUME SOURCE ID = SLINE21
```

	SRCPARAM	L0000001	0.0000003867	3.40	12.39	1.58
	SRCPARAM	L0000002	0.0000003867	3.40	12.39	1.58
	SRCPARAM	L0000003	0.0000003867		12.39	1.58
	SRCPARAM	L0000004	0.0000003867		12.39	1.58
		L0000005	0.0000003867		12.39	1.58
		L0000006	0.0000003867		12.39	1.58
		L0000007		3.40	12.39	1.58
	SRCPARAM		0.0000003867	3.40	12.39	1.58
		L0000009		3.40	12.39	1.58
		L0000003	0.0000003867		12.39	1.58
		L0000010	0.0000003867		12.39	1.58
		L0000011	0.0000003867		12.39	1.58
		L0000012	0.0000003867		12.39	1.58
		L0000013	0.0000003867		12.39	1.58
		L0000014	0.0000003867	3.40	12.39	1.58
		L0000015			12.39	1.58
			0.0000003867			
		L0000017	0.0000003867		12.39	1.58
		L0000018	0.0000003867		12.39	1.58
		L0000019	0.0000003867		12.39	1.58
		L0000020	0.0000003867		12.39	1.58
		L0000021	0.0000003867		12.39	1.58
		L0000022		3.40	12.39	1.58
		L0000023		3.40	12.39	1.58
		L0000024	0.0000003867		12.39	1.58
		L0000025	0.0000003867		12.39	
		L0000026	0.0000003867		12.39	
		L0000027	0.0000003867		12.39	1.58
		L0000028	0.0000003867		12.39	1.58
		L0000029	0.0000003867		12.39	1.58
		L0000030	0.0000003867		12.39	
**		JME SOURCE ID				
			0.0000006444			
			0.0000006444			
			0.0000006444		12.39	
		L0004928	0.0000006444	3.40	12.39	1.58
		L0004929	0.0000006444	3.40	12.39	1.58
		L0004930	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004931	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004932	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004933	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004934	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004935	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004936	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004937	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004938	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004939	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004940	0.0000006444	3.40	12.39	1.58
	SRCPARAM	L0004941	0.0000006444	3.40	12.39	1.58
		L0004942	0.0000006444	3.40	12.39	1.58

**					
	SRCPARAM VOL41				
**	LINE VOLUME SOURCE ID				
	SRCPARAM L0004943	0.000000003313	5.6	5 11.16	2.63
	SRCPARAM L0004944	0.000000003313			
	SRCPARAM L0004945	0.000000003313			
	SRCPARAM L0004946	0.000000003313			
	SRCPARAM L0004947	0.000000003313			
	SRCPARAM L0004948	0.000000003313			
	SRCPARAM L0004949	0.000000003313			
	SRCPARAM L0004950	0.000000003313			2.63
	SRCPARAM L0004951	0.000000003313			2.63
	SRCPARAM L0004952	0.000000003313			
	SRCPARAM L0004953	0.000000003313			
	SRCPARAM L0004954	0.000000003313			
	SRCPARAM L0004955	0.000000003313			
	SRCPARAM L0004956	0.000000003313			
	SRCPARAM L0004957	0.000000003313		5 11.16	
	SRCPARAM L0004958	0.000000003313		5 11.16	
	SRCPARAM L0004959	0.000000003313			
	SRCPARAM L0004960	0.000000003313			
	SRCPARAM L0004961	0.000000003313			
	SRCPARAM L0004962	0.000000003313			
	SRCPARAM L0004963	0.000000003313			
	SRCPARAM L0004964	0.000000003313			2.63
	SRCPARAM L0004965	0.00000000331			2.63
	SRCPARAM L0004966	0.00000000331			
	SRCPARAM L0004967	0.00000000331			
	SRCPARAM L0004968	0.00000000331			
	SRCPARAM L0004969	0.00000000331			
	SRCPARAM L0004970	0.00000000331			
	SRCPARAM L0004971	0.00000000331			
	SRCPARAM L0004972	0.00000000331			2.63
	SRCPARAM L0004973	0.00000000331			
	SRCPARAM L0004974	0.00000000331			
	SRCPARAM L0004975	0.00000000331			
	SRCPARAM L0004976	0.00000000331			
	SRCPARAM L0004977	0.00000000331			
	SRCPARAM L0004978	0.00000000331			
	SRCPARAM L0004979	0.000000000331			
	SRCPARAM L0004980	0.00000000331			
	SRCPARAM L0004981	0.00000000331			
	SRCPARAM L0004982	0.00000000331			
	SRCPARAM L0004983	0.00000000331			
	SRCPARAM L0004984	0.00000000331			
	SRCPARAM L0004985	0.00000000331			
	SRCPARAM L0004986	0.000000000331			
	SRCPARAM L0004987	0.00000000331			
	SRCPARAM L0004988	0.00000000331			
	SRCPARAM L0004989	0.00000000331			
				. = -	

SRCPARAM	L0004990	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004991	0.000000003313	5.65	11.16	2.63
SRCPARAM		0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004993	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004994	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004995	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004996	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004997	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004998	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004999	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005000	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005001	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005002	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005003	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005004	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005005	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005006	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005007	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005008	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005009	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005010	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005011	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005012	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005013	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005014	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005015	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005016	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005017	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005018	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005019	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005020	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005021	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005022	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005023	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005024	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005025	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005026	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005027	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005028	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005029	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005030	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005031	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005032	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005033	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005034	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005035	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005036	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005037	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005038	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0005039	0.000000003313	5.65	11.16	2.63

**	SRCPARAM L0005040 SRCPARAM L0005041					16 2.63 16 2.63
	SRCPARAM VOL1 SRCPARAM VOL2 SRCPARAM VOL3 LINE VOLUME SOURCE		0.0000159 0.0000159	3.400	20.233	3.160
**	SRCPARAM L0005042 SRCPARAM L0005043 SRCPARAM L0005044 SRCPARAM L0005045 SRCPARAM L0005046 SRCPARAM L0005047		0.00000265 0.00000265 0.00000265 0.00000265	3.40 3.40	40.47 40.47 40.47 40.47	1.58 1.58 1.58
**	LINE VOLUME SOURCE SRCPARAM L0005048 SRCPARAM L0005049 SRCPARAM L0005050 SRCPARAM L0005051 SRCPARAM L0005052 SRCPARAM L0005053 SRCPARAM L0005054		0.000002271 0.000002271 0.000002271 0.000002271 0.000002271 0.000002271	3.40 3.40 3.40 3.40 3.40	26.51 26.51 26.51 26.51 26.51	1.58 1.58 1.58 1.58 1.58
	LINE VOLUME SOURCE SRCPARAM L0005055 SRCPARAM L0005056		0.00000795			
	LINE VOLUME SOURCE SRCPARAM L0005057 SRCPARAM L0005058 SRCPARAM L0005059 SRCPARAM L0005060		0.000003975 0.000003975 0.000003975	3.40 3.40	23.26 23.26	1.58 1.58
	LINE VOLUME SOURCE SRCPARAM L0005061 SRCPARAM L0005062 SRCPARAM L0005063 SRCPARAM L0005064 SRCPARAM L0005065 SRCPARAM L0005066		0.00000265 0.00000265 0.00000265 0.00000265 0.00000265	3.40 3.40 3.40 3.40 3.40	11.63 11.63 11.63 11.63 11.63	1.58 1.58 1.58 1.58 1.58
	SRCPARAM VOL12 SRCPARAM VOL22 SRCPARAM VOL32 LINE VOLUME SOURCE SRCPARAM L0005067 SRCPARAM L0005068 SRCPARAM L0005070 SRCPARAM L0005070	ID	0.0 0.0 0.0 = SLINE432 0.0	1.300 1.300 1.300 1.30 1.30 1.30 1.30	11.628 20.233	1.210 1.210 1.210 0.60 0.60

```
SRCPARAM L0005072
               0.0 1.30 40.47
                                         0.60
** ______
** LINE VOLUME SOURCE ID = SLINE444
                         1.30 26.51
1.30 26.51
1.30 26.51
  SRCPARAM L0005073
                                        0.60
                     0.0
  SRCPARAM L0005074
                     0.0
                                        0.60
                                        0.60
  SRCPARAM L0005075
                     0.0
                          1.30
  SRCPARAM L0005076
                    0.0
                                 26.51
                                        0.60
                          1.30
1.30
                                 26.51
  SRCPARAM L0005077
                                        0.60
                     0.0
  SRCPARAM L0005078
                                 26.51
                                        0.60
                     0.0
                          1.30 26.51
                                      0.60
  SRCPARAM L0005079
                     0.0
** ______
** LINE VOLUME SOURCE ID = SLINE452
  SRCPARAM L0005080
                           1.30
                  0.0
                                 36.74
                                         0.60
  SRCPARAM L0005081
                     0.0
                         1.30 36.74
** _____
** LINE VOLUME SOURCE ID = SLINE462
                    0.0
0.0 1.30
1.30
                           1.30 23.26
1.30 23.26
  SRCPARAM L0005082
                0.0
                                          0.60
  SRCPARAM L0005083
                                          0.60
  SRCPARAM L0005084
                                 23.26
                                        0.60
                           1.30 23.26
  SRCPARAM L0005085
                     0.0
                                          0.60
** _____
** LINE VOLUME SOURCE ID = SLINE472
                          1.30 11.63
1.30 11.63
1.30 11.63
  SRCPARAM L0005086 0.0
                                        0.60
  SRCPARAM L0005087
                                        0.60
                     0.0
  SRCPARAM L0005088
                    0.0
                                        0.60
  SRCPARAM L0005089
                    0.0
                           1.30
                                 11.63
                                        0.60
                           1.30
  SRCPARAM L0005090
                     0.0
                                 11.63
                                         0.60
                           1.30 11.63 0.60
  SRCPARAM L0005091
                     0.0
** ______
  URBANSRC ALL
  SRCGROUP ALL
SO FINISHED
************
** AERMOD RECEPTOR PATHWAY
************
**
**
RE STARTING
  INCLUDED "AERMOD LAYOVER CONSTRUCT.ROU"
RE FINISHED
***********
** AERMOD METEOROLOGY PATHWAY
************
**
**
ME STARTING
  SURFFILE "..\..\MET DATA\14-18.SFC"
  PROFFILE "..\..\MET DATA\14-18.PFL"
```

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 0 Informational Message(s)

****** FATAL ERROR MESSAGES ******

*** NONE ***

	*****	WARNING	MESSAGES	***	*****					
S0	W320 QS	690	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	691	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	W320 OS	692	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	694	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	695	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320	696	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	697	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	698	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320 QS	699	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter

S0	W320 QS	702	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	W320	703	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	704	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	705	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	706	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	707	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	708	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	711	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	712	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	715	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	716	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	717	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	718	VPARM:	Input Parameter May Be Out-of-Range for Parameter
SO	QS W320	721	VPARM:	Input Parameter May Be Out-of-Range for Parameter
SO	QS W320	722	VPARM:	Input Parameter May Be Out-of-Range for Parameter
SO	QS W320	723	VPARM:	Input Parameter May Be Out-of-Range for Parameter
SO	QS W320	724	VPARM:	Input Parameter May Be Out-of-Range for Parameter
SO	QS W320	725	VPARM:	Input Parameter May Be Out-of-Range for Parameter
S0	QS W320	726	VPARM:	Input Parameter May Be Out-of-Range for Parameter
ME	QS W186	752	MEOPEN:	THRESH_1MIN 1-min ASOS wind speed threshold used
ME	0.50 W187	752	MEOPEN:	ADJ_U* Option for Stable Low Winds used in AERMET

**** SETUP Finishes Successfully ***

*** 17:16:07

PAGE 1

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** MODEL SETUP OPTIONS SUMMARY

** Model Options Selected:

- * Model Uses Regulatory DEFAULT Options
- * Model Is Setup For Calculation of Average CONCentration Values.
- * NO GAS DEPOSITION Data Provided.
- * NO PARTICLE DEPOSITION Data Provided.
- * Model Uses NO DRY DEPLETION. DDPLETE = F
- * Model Uses NO WET DEPLETION. WETDPLT = F
- * Stack-tip Downwash.
- * Model Accounts for ELEVated Terrain Effects.
- * Use Calms Processing Routine.
- * Use Missing Data Processing Routine.
- * No Exponential Decay.
- * Model Uses URBAN Dispersion Algorithm for the SBL for 204 Source(s), for Total of 1 Urban Area(s):

Urban Population = 2500000.0; Urban Roughness Length = 1.000 m

- * Urban Roughness Length of 1.0 Meter Used.
 - * ADJ_U* Use ADJ_U* option for SBL in AERMET
 - * CCVR Sub Meteorological data includes CCVR substitutions
 - * TEMP Sub Meteorological data includes TEMP substitutions
 - * Model Accepts FLAGPOLE Receptor . Heights.
 - * The User Specified a Pollutant Type of: DPM

**This Run Includes: 204 Source(s); 1 Source Group(s); and 329 Receptor(s)

with: 0 POINT(s), including

and: 204 VOLUME source(s)

and: 0 AREA type source(s)

and: 0 LINE source(s)

and: 0 RLINE/RLINEXT source(s)

and: 0 OPENPIT source(s)

and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

and: 0 SWPOINT source(s)

^{**}Model Calculates PERIOD Averages Only

^{**}Model Set To Continue RUNning After the Setup Testing.

The AERMET Input Meteorological Data Version Date: 19191 **Output Options Selected: Model Outputs Tables of PERIOD Averages by Receptor Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword) Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword) NOTE: Option for EXPonential format used in formatted output result files (FILEFORM Keyword) **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours m for Missing Hours b for Both Calm and Missing Hours **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00; Decay Coef. = 0.000 ; Rot. Angle = 0.0 Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07 Output Units = MICROGRAMS/M3 **Approximate Storage Requirements of Model = 3.6 MB of RAM. **Input Runstream File: aermod.inp **Output Print File: aermod.out **Detailed Error/Message File: AERMOD LAYOVER CONSTRUCT.ERR **File for Summary of Results: AERMOD LAYOVER CONSTRUCT.SUM *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -★ *** AERMOD - VERSION 22112 *** MITIGATED 07/18/23 *** AERMET - VERSION 19191 *** *** 17:16:07 PAGE 2 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U* *** VOLUME SOURCE DATA *** NUMBER EMISSION RATE BASE RELEASE INIT. INIT. URBAN EMISSION RATE SOURCE PART. (GRAMS/SEC) X Υ ELEV. HEIGHT SY

SZ

SOURCE SCALAR VARY

L0000001 0 0.38670E-06 649993.6 4291183.8 52.6 3.40 12.39 1.58 YES 0 0.38670E-06 650017.0 4291196.4 52.7 L0000002 3.40 12.39 YES 1.58 L0000003 0 0.38670E-06 650040.5 4291209.1 52.8 3.40 12.39 1.58 YES 12.39 L0000004 0 0.38670E-06 650063.9 4291221.7 52.9 3.40 1.58 YES L0000005 0.38670E-06 650087.4 4291234.4 53.0 3.40 12.39 1.58 YES 0.38670E-06 650110.8 4291247.0 3.40 L0000006 53.1 12.39 0 1.58 YES L0000007 0.38670E-06 650134.9 4291258.4 53.2 3.40 12.39 0 1.58 YES 0.38670E-06 650159.5 4291268.4 12.39 L0000008 0 53.3 3.40 1.58 YES L0000009 0 0.38670E-06 650184.2 4291278.5 53.3 3.40 12.39 1.58 YES 0.38670E-06 650209.3 4291287.6 53.4 3.40 12.39 L0000010 0 1.58 YES L0000011 0.38670E-06 650234.8 4291295.2 3.40 12.39 0 53.5 1.58 YES L0000012 0.38670E-06 650260.3 4291302.9 53.6 3.40 12.39 0 1.58 YES 0.38670E-06 650285.8 4291310.5 53.6 3.40 12.39 L0000013 0 1.58 YES L0000014 0.38670E-06 650311.7 4291316.6 12.39 0 53.2 3.40 1.58 YES L0000015 0 0.38670E-06 650337.7 4291322.7 52.8 3.40 12.39 1.58 YES L0000016 0.38670E-06 650363.6 4291328.8 52.4 3.40 12.39 1.58 YES L0000017 0 0.38670E-06 650389.6 4291334.6 52.0 3.40 12.39 1.58 YES 0.38670E-06 650416.1 4291337.6 51.4 3.40 12.39 L0000018 0 1.58 YES L0000019 0.38670E-06 650442.5 4291340.5 50.7 3.40 12.39 0 1.58 YES L0000020 0.38670E-06 650469.0 4291343.5 50.0 3.40 12.39 1.58 YES L0000021 0.38670E-06 650493.3 4291354.2 49.9 3.40 12.39 0 1.58 YES L0000022 0 0.38670E-06 650519.6 4291356.5 50.2 3.40 12.39 1.58 YES L0000023 0.38670E-06 650546.2 4291357.4 50.5 3.40 12.39

1.58 YES	0	0 206705 06	CEOFT2 0 42012E0 2	ΓΩ 0	2 40	12 20
L0000024 1.58 YES	0	0.38670E-06	650572.8 4291358.3	50.8	3.40	12.39
L0000025	0	0.38670E-06	650599.4 4291359.2	51.1	3.40	12.39
1.58 YES	0	0 206705 06	CEOCOC 1 40040CO 0	F4 4	2 40	42.20
L0000026 1.58 YES	0	0.38670E-06	650626.1 4291360.0	51.4	3.40	12.39
L0000027	0	0.38670E-06	650652.7 4291360.9	51.7	3.40	12.39
1.58 YES						
L0000028 1.58 YES	0	0.38670E-06	650679.3 4291361.8	52.0	3.40	12.39
L0000029	0	0.38670E-06	650705.9 4291362.7	52.3	3.40	12.39
1.58 YES						
L0000030	0	0.38670E-06	650732.6 4291363.6	52.6	3.40	12.39
1.58 YES L0004925	0	0.64440E-06	650755.2 4291362.6	52.9	3.40	12.39
1.58 YES	Ū	0.044401 00	030733.2 4231302.0	32.3	3.40	12.55
L0004926	0	0.64440E-06	650779.6 4291354.2	53.7	3.40	12.39
1.58 YES L0004927	0	0.64440E-06	650806.2 4291354.7	54.9	3.40	12.39
1.58 YES	V	0.04440E-00	030000.2 4291334.7	54.5	3.40	12.39
L0004928	0	0.64440E-06	650832.8 4291355.7	56.1	3.40	12.39
1.58 YES	•	0 (44405 06	CEOOFO 4 42042E7 0	4	2 40	40.00
L0004929 1.58 YES	0	0.64440E-06	650859.4 4291357.0	57.4	3.40	12.39
L0004930	0	0.64440E-06	650886.0 4291359.2	58.7	3.40	12.39
1.58 YES						
L0004931 1.58 YES	0	0.64440E-06	650912.6 4291360.7	59.9	3.40	12.39
L0004932	0	0.64440E-06	650939.2 4291360.4	60.9	3.40	12.39
1.58 YES						
L0004933	0	0.64440E-06	650965.8 4291360.1	61.8	3.40	12.39
1.58 YES L0004934	0	0.64440E-06	650992.4 4291357.9	58.9	3.40	12.39
1.58 YES				50.5		
↑ *** AERMOD	- VERSIO		*** 3RD LEG LAYOVER	R CNONSTRU	CTION EM	ISSIONS -
MITIGATED *** AERMET -	VEDSTON	*** 19191 ***	07/18/23 ***			
AERMET -	AEUSTON	***	17:16:07			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSION RATE					
SOURCE PART. (GRAMS/SEC)		Χ	Υ	ELEV.	HEIGHT	SY	
SZ	SOURCE	SCALAR VARY					

L0004935 0 0.64440E-06 651018.9 4291355.2 55.9 3.40 12.39 1.58 YES 0 0.64440E-06 651045.3 4291351.6 L0004936 56.0 3.40 12.39 1.58 YES L0004937 0 0.64440E-06 651071.6 4291347.5 59.4 3.40 12.39 1.58 YES 0.64440E-06 651097.7 4291342.7 12.39 L0004938 0 62.4 3.40 1.58 YES L0004939 0 0.64440E-06 651123.1 4291334.4 61.6 3.40 12.39 1.58 YES 0.64440E-06 651148.3 4291325.9 L0004940 60.7 3.40 12.39 0 1.58 YES L0004941 0.64440E-06 651173.2 4291316.5 59.5 3.40 12.39 0 1.58 YES 0.64440E-06 651197.3 4291305.1 12.39 L0004942 0 58.0 3.40 1.58 YES V0L41 0 0.11600E-04 649972.1 4291194.8 53.1 3.40 3.95 3.16 YES 0.33130E-08 648628.8 4291375.5 48.7 L0004943 0 5.65 11.16 YES 2.63 L0004944 0.33130E-08 648644.0 4291356.9 48.7 5.65 11.16 0 2.63 YES L0004945 0.33130E-08 648659.1 4291338.3 48.8 5.65 11.16 0 2.63 YES L0004946 0.33130E-08 648674.3 4291319.7 48.8 0 5.65 11.16 2.63 YES L0004947 0.33130E-08 648689.4 4291301.1 0 48.8 5.65 11.16 2.63 YES L0004948 0 0.33130E-08 648704.6 4291282.5 48.9 5.65 11.16 2.63 YES L0004949 0.33130E-08 648719.7 4291263.9 48.9 5.65 11.16 2.63 YES 0.33130E-08 648734.9 4291245.3 L0004950 0 48.9 5.65 11.16 2.63 YES L0004951 0.33130E-08 648750.0 4291226.7 49.0 11.16 0 5.65 2.63 YES L0004952 0.33130E-08 648765.2 4291208.0 49.0 5.65 0 11.16 2.63 YES L0004953 0.33130E-08 648780.3 4291189.4 49.0 5.65 11.16 2.63 YES L0004954 0.33130E-08 648795.5 4291170.8 11.16 0 49.1 5.65 2.63 YES L0004955 0 0.33130E-08 648810.6 4291152.2 49.1 5.65 11.16 2.63 YES L0004956 0.33130E-08 648825.8 4291133.6 49.1 5.65 11.16

2.63 YES						
L0004957	0	0.33130E-08	648840.9 4291115.0	49.2	5.65	11.16
2.63 YES						
L0004958	0	0.33130E-08	648856.1 4291096.4	49.2	5.65	11.16
2.63 YES				40.0		
L0004959	0	0.33130E-08	648871.2 4291077.8	49.3	5.65	11.16
2.63 YES	0	0 221205 00	C4000C 4 42010F0 1	40.2	г сг	11 16
L0004960 2.63 YES	0	0.33130E-08	648886.4 4291059.1	49.3	5.65	11.16
2.63 YES L0004961	0	0.33130E-08	648901.6 4291040.5	49.3	5.65	11.16
2.63 YES	V	0.33130E-00	048901.0 4291040.3	49.5	3.03	11.10
L0004962	0	0.33130E-08	648916.7 4291021.9	49.4	5.65	11.16
2.63 YES	· ·	0.331301 00	040310.7 4231021.3	42.4	3.03	11.10
L0004963	0	0.33130E-08	648931.9 4291003.3	49.4	5.65	11.16
2.63 YES	•	0,000			5.05	
L0004964	0	0.33130E-08	648947.0 4290984.7	49.4	5.65	11.16
2.63 YES						
L0004965	0	0.33130E-08	648962.2 4290966.1	49.5	5.65	11.16
2.63 YES						
L0004966	0	0.33130E-08	648977.3 4290947.5	49.5	5.65	11.16
2.63 YES						
L0004967	0	0.33130E-08	648992.5 4290928.9	49.5	5.65	11.16
2.63 YES	•	0 224205 00	640007 6 4000040 3	40.5		44.46
L0004968	0	0.33130E-08	649007.6 4290910.3	49.6	5.65	11.16
2.63 YES L0004969	0	0.33130E-08	649022.8 4290891.6	49.6	5.65	11.16
2.63 YES	Ø	0.33130E-00	049022.8 4290891.0	49.0	3.03	11.10
L0004970	0	0.33130E-08	649037.9 4290873.0	49.6	5.65	11.16
2.63 YES	J	0.331301 00	0.15057.15	13.0	3.03	11.10
L0004971	0	0.33130E-08	649053.1 4290854.4	49.7	5.65	11.16
2.63 YES						
L0004972	0	0.33130E-08	649068.2 4290835.8	49.7	5.65	11.16
2.63 YES						
L0004973	0	0.33130E-08	649084.3 4290818.2	49.7	5.65	11.16
2.63 YES						
↑ *** AERMOD	- VERSIO		*** 3RD LEG LAYOVER	R CNONSTRU	CTION EM	ISSIONS -
MITIGATED	VEDCTON	***	07/18/23 ***			
*** AERMET -	VEKSTON	19191 *** ***				
		an an an	17:16:07			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSION RATE					
SOU	SOURCE PART. (GRAMS/SEC)		Χ	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR VARY					

L0004974 0 0.33130E-08 649104.1 4290804.6 49.7 5.65 11.16 2.63 YES L0004975 0 0.33130E-08 649123.8 4290791.0 49.7 5.65 11.16 2.63 YES L0004976 0 0.33130E-08 649143.6 4290777.3 49.7 5.65 11.16 2.63 YES 0.33130E-08 649163.3 4290763.7 L0004977 0 49.7 5.65 11.16 2.63 YES L0004978 0.33130E-08 649183.7 4290751.1 49.7 5.65 11.16 2.63 YES 0.33130E-08 649205.2 4290740.4 L0004979 49.8 5.65 11.16 0 2.63 YES L0004980 0.33130E-08 649226.7 4290729.7 49.9 5.65 11.16 0 YES 2.63 0.33130E-08 649249.5 4290723.3 11.16 L0004981 0 49.8 5.65 2.63 YES L0004982 0 0.33130E-08 649273.2 4290719.9 49.7 5.65 11.16 2.63 YES 0.33130E-08 649296.7 4290722.4 49.7 L0004983 0 5.65 11.16 2.63 YES L0004984 0.33130E-08 649320.0 4290728.0 11.16 0 49.8 5.65 2.63 YES L0004985 0.33130E-08 649342.1 4290736.3 49.8 5.65 11.16 0 2.63 YES L0004986 0.33130E-08 649361.6 4290750.4 49.9 0 5.65 11.16 2.63 YES L0004987 0.33130E-08 649381.1 4290764.4 0 49.9 5.65 11.16 2.63 YES L0004988 0 0.33130E-08 649400.4 4290778.7 50.0 5.65 11.16 2.63 YES L0004989 0.33130E-08 649419.3 4290793.4 50.1 5.65 11.16 2.63 YES L0004990 0 0.33130E-08 649438.2 4290808.2 50.3 5.65 11.16 2.63 YES L0004991 0.33130E-08 649457.2 4290822.9 50.4 11.16 0 5.65 2.63 YES L0004992 0.33130E-08 649476.1 4290837.7 50.5 5.65 0 11.16 2.63 YES L0004993 0 0.33130E-08 649495.0 4290852.4 50.6 5.65 11.16 2.63 YES L0004994 0.33130E-08 649514.0 4290867.2 11.16 0 50.7 5.65 2.63 YES L0004995 0 0.33130E-08 649532.9 4290881.9 50.8 5.65 11.16 2.63 YES L0004996 0.33130E-08 649551.8 4290896.7 51.0 5.65 11.16

2.63 YES						
L0004997	0	0.33130E-08	649570.8 4290911.4	51.1	5.65	11.16
2.63 YES						
L0004998	0	0.33130E-08	649589.7 4290926.2	51.2	5.65	11.16
2.63 YES	0	0 224205 00	640600 6 4200040 0	F4 2	F 65	11 16
L0004999	0	0.33130E-08	649608.6 4290940.9	51.3	5.65	11.16
2.63 YES	0	A 2212AF AO	640627 6 4200055 7	F1 /	5.65	11 16
L0005000 2.63 YES	О	0.33130E-08	649627.6 4290955.7	51.4	5.05	11.16
L0005001	0	0.33130E-08	649646.5 4290970.4	51.5	5.65	11.16
2.63 YES	ð	0.331301-08	049040:3 4290970:4	51.5	3.03	11.10
L0005002	0	0.33130E-08	649665.4 4290985.2	51.7	5.65	11.16
2.63 YES	Ū	0.331301 00	0+3003.4 4230303.2	31.7	3.03	11.10
L0005003	0	0.33130E-08	649684.3 4291000.0	51.8	5.65	11.16
2.63 YES	Ū	0.332302 00	0.300.13 123200010	32.0	3.03	
L0005004	0	0.33130E-08	649703.2 4291014.8	51.9	5.65	11.16
2.63 YES						
L0005005	0	0.33130E-08	649722.1 4291029.6	52.0	5.65	11.16
2.63 YES						
L0005006	0	0.33130E-08	649740.9 4291044.4	52.1	5.65	11.16
2.63 YES						
L0005007	0	0.33130E-08	649759.8 4291059.2	52.3	5.65	11.16
2.63 YES						
L0005008	0	0.33130E-08	649778.7 4291074.1	52.4	5.65	11.16
2.63 YES						
L0005009	0	0.33130E-08	649797.6 4291088.9	52.5	5.65	11.16
2.63 YES	_					
L0005010	0	0.33130E-08	649816.5 4291103.7	52.6	5.65	11.16
2.63 YES	0	0 224205 00	640025 4 4201110 5	F2 0	F 6F	11 16
L0005011	0	0.33130E-08	649835.4 4291118.5	52.8	5.65	11.16
2.63 YES L0005012	0	0.33130E-08	649854.2 4291133.3	52.9	5.65	11.16
2.63 YES	Ø	0.33130E-00	049834.2 4291133.3	32.9	5.05	11.10
L0005013	0	0.33130E-08	649873.1 4291148.1	53.0	5.65	11.16
2.63 YES	O	0.331301 00	045075.1 4251140.1	33.0	3.03	11.10
↑ *** AERMOD	- VFRSTO	N 22112 ***	*** 3RD LEG LAYOVE	R CNONSTRI	ICTTON FM	TSSTONS -
MITIGATED		***	07/18/23		· - · = -··· -· ·	-
*** AERMET -	VERSION	19191 ***	***			
		***	17:16:07			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSION RATE					
SO	SOURCE PART. (GRAMS/SEC)		X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR VARY					

L0005014 0 0.33130E-08 649892.0 4291162.9 53.1 5.65 11.16 2.63 YES L0005015 0 0.33130E-08 649910.9 4291177.8 53.2 5.65 11.16 2.63 YES L0005016 0 0.33130E-08 649929.8 4291192.6 53.4 5.65 11.16 2.63 YES 0.33130E-08 649948.7 4291207.4 11.16 L0005017 0 53.5 5.65 2.63 YES 53.6 L0005018 0.33130E-08 649968.1 4291221.3 5.65 11.16 2.63 YES 0.33130E-08 649989.4 4291232.4 L0005019 53.6 5.65 11.16 0 2.63 YES L0005020 0.33130E-08 650010.6 4291243.6 53.6 5.65 11.16 0 YES 2.63 0.33130E-08 650031.9 4291254.7 11.16 L0005021 0 53.6 5.65 2.63 YES L0005022 0 0.33130E-08 650053.2 4291265.8 53.6 5.65 11.16 2.63 YES 0.33130E-08 650074.4 4291277.0 53.7 5.65 L0005023 0 11.16 YES 2.63 L0005024 0.33130E-08 650095.7 4291288.1 11.16 0 53.7 5.65 2.63 YES L0005025 0 0.33130E-08 650117.9 4291297.0 53.7 5.65 11.16 2.63 YES L0005026 0.33130E-08 650140.6 4291304.9 11.16 0 53.7 5.65 2.63 YES L0005027 0.33130E-08 650163.2 4291312.9 0 53.7 5.65 11.16 YES 2.63 L0005028 0 0.33130E-08 650185.8 4291320.9 53.7 5.65 11.16 2.63 YES L0005029 0.33130E-08 650208.5 4291328.9 53.7 5.65 11.16 2.63 YES L0005030 0 0.33130E-08 650231.1 4291336.9 53.7 5.65 11.16 2.63 YES L0005031 0.33130E-08 650253.7 4291344.9 53.7 11.16 0 5.65 2.63 YES L0005032 0.33130E-08 650276.3 4291352.9 53.7 5.65 11.16 0 2.63 YES L0005033 0.33130E-08 650299.0 4291360.9 53.7 5.65 11.16 YES 2.63 L0005034 0.33130E-08 650321.6 4291368.8 11.16 0 53.8 5.65 2.63 YES L0005035 0 0.33130E-08 650345.2 4291373.2 53.8 5.65 11.16 2.63 YES L0005036 0.33130E-08 650368.8 4291377.5 53.8 5.65 11.16

2.63 YES						
L0005037	0	0.33130E-08	650392.4 4291381.9	53.8	5.65	11.16
2.63 YES						
L0005038	0	0.33130E-08	650416.0 4291386.3	53.8	5.65	11.16
2.63 YES						
L0005039	0	0.33130E-08	650439.6 4291390.6	53.8	5.65	11.16
2.63 YES						
L0005040	0	0.33130E-08	650463.2 4291395.0	53.8	5.65	11.16
2.63 YES						
L0005041	0	0.33130E-08	650486.8 4291399.4	53.8	5.65	11.16
2.63 YES						
VOL1	0	0.15900E-04	650665.3 4291406.9	53.2	3.40	11.63
3.16 YES						
VOL2	0	0.15900E-04	650564.0 4291398.4	53.2	3.40	20.23
3.16 YES						
VOL3	0	0.15900E-04	650456.4 4291399.5	53.9	3.40	15.12
3.16 YES						
L0005042	0	0.26500E-05	650353.1 4291409.6	54.2	3.40	40.47
1.58 YES						
L0005043	0	0.26500E-05	650268.8 4291389.3	54.5	3.40	40.47
1.58 YES						
L0005044	0	0.26500E-05	650186.2 4291361.9	54.5	3.40	40.47
1.58 YES						
L0005045	0	0.26500E-05	650105.1 4291330.6	54.8	3.40	40.47
1.58 YES						
L0005046	0	0.26500E-05	650027.6 4291291.4	53.7	3.40	40.47
1.58 YES						
L0005047	0	0.26500E-05	649951.8 4291248.7	52.9	3.40	40.47
1.58 YES						
L0005048	0	0.22710E-05	649876.1 4291183.7	52.5	3.40	26.51
1.58 YES						
L0005049	0	0.22710E-05	649832.0 4291147.5	52.3	3.40	26.51
1.58 YES						
L0005050	0	0.22710E-05	649787.9 4291111.4	52.0	3.40	26.51
1.58 YES						
★ *** AERMOD -	VERSIC	N 22112 ***	*** 3RD LEG LAYOVER	R CNONSTRU	JCTION EM	ISSIONS -
MITIGATED		***	07/18/23			
*** AERMET -	VERSION	19191 ***	***			
		***	17:16:07			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSION RATE					
SO	SOURCE PART. (GRAMS/SEC)		X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR VARY					

0 0.22710E-05 649743.9 4291075.2 51.8 3.40 26.51 L0005051 1.58 YES L0005052 0.22710E-05 649699.8 4291039.1 51.6 3.40 26.51 1.58 YES L0005053 0 0.22710E-05 649655.7 4291002.9 51.4 3.40 26.51 1.58 YES 0.22710E-05 649611.7 4290966.8 26.51 L0005054 0 51.1 3.40 1.58 YES L0005055 0.79500E-05 649551.8 4290913.5 50.8 3.40 36.74 1.58 YES 0.79500E-05 649490.4 4290863.8 3.40 L0005056 50.5 36.74 0 1.58 YES L0005057 0.39750E-05 649426.2 4290799.7 50.2 3.40 23.26 0 1.58 YES 0.39750E-05 649387.6 4290767.9 50.1 3.40 23.26 L0005058 0 1.58 YES L0005059 0 0.39750E-05 649349.1 4290736.1 49.9 3.40 23.26 1.58 YES 0.39750E-05 649310.5 4290704.3 49.8 3.40 23.26 L0005060 0 1.58 YES L0005061 0.26500E-05 649148.7 4290768.0 49.3 3.40 11.63 0 1.58 YES L0005062 0.26500E-05 649170.0 4290754.9 49.4 3.40 11.63 0 1.58 YES 0.26500E-05 649191.3 4290741.9 49.4 3.40 11.63 L0005063 0 1.58 YES L0005064 0.26500E-05 649212.7 4290728.9 3.40 0 49.5 11.63 1.58 YES L0005065 0 0.26500E-05 649234.0 4290715.8 49.5 3.40 11.63 1.58 YES L0005066 0.26500E-05 649255.3 4290702.8 49.5 3.40 11.63 1.58 YES VOL12 0 0.00000E+00 650665.3 4291406.9 53.2 1.30 11.63 1.21 YES VOL22 0.00000E+00 650564.0 4291398.4 53.2 1.30 20.23 0 1.21 YES VOL32 0.00000E+00 650456.4 4291399.5 53.9 1.30 15.12 0 1.21 YES L0005067 0.00000E+00 650353.1 4291409.6 54.2 1.30 40.47 0.60 YES L0005068 0.00000E+00 650268.8 4291389.3 54.5 1.30 40.47 0 0.60 YES L0005069 0 0.00000E+00 650186.2 4291361.9 54.5 1.30 40.47 0.60 YES L0005070 0.00000E+00 650105.1 4291330.6 54.8 1.30 40.47

0.60 YES						
L0005071 0.60 YES	0	0.00000E+00	650027.6 4291291.4	53.7	1.30	40.47
L0005072	0	0.00000E+00	649951.8 4291248.7	52.9	1.30	40.47
0.60 YES L0005073	0	0.00000E+00	649876.1 4291183.7	52.5	1.30	26.51
0.60 YES L0005074	0	0.00000E+00	649832.0 4291147.5	52.3	1.30	26.51
0.60 YES L0005075	0	0.00000E+00	649787.9 4291111.4	52.0	1.30	26.51
0.60 YES L0005076	0	0.00000E+00	649743.9 4291075.2	51.8	1.30	26.51
0.60 YES L0005077	0	0.00000E+00	649699.8 4291039.1	51.6	1.30	26.51
0.60 YES L0005078	0	0.00000E+00	649655.7 4291002.9	51.4	1.30	26.51
0.60 YES L0005079	0	0.00000E+00	649611.7 4290966.8	51.1	1.30	26.51
0.60 YES	_					
L0005080 0.60 YES	0	0.00000E+00	649551.8 4290913.5	50.8	1.30	36.74
L0005081 0.60 YES	0	0.00000E+00	649490.4 4290863.8	50.5	1.30	36.74
L0005082 0.60 YES	0	0.00000E+00	649426.2 4290799.7	50.2	1.30	23.26
L0005083 0.60 YES	0	0.00000E+00	649387.6 4290767.9	50.1	1.30	23.26
L0005084 0.60 YES	0	0.00000E+00	649349.1 4290736.1	49.9	1.30	23.26
L0005085 0.60 YES	0	0.00000E+00	649310.5 4290704.3	49.8	1.30	23.26
L0005086 0.60 YES	0	0.00000E+00	649148.7 4290768.0	49.3	1.30	11.63
L0005087	0	0.00000E+00	649170.0 4290754.9	49.4	1.30	11.63
<pre>0.60 YES ↑ *** AERMOD MITIGATED *** AERMET -</pre>		***	*** 3RD LEG LAYOVE 07/18/23 *** 17:16:07	R CNONSTRU	JCTION EM	ISSIONS -

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSION RATE					
SO	SOURCE PART. (GRAMS/SEC)		X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR VARY					

ID (METERS)	CATS. B	Υ	(METERS) (METERS)	(METERS) (M	ETERS) (METERS))
L0005088		.00000E+00	649191.3 4290741.9	49.4	1.30 11.63	
0.60 YE L0005089	0 0	.00000E+00	649212.7 4290728.9	49.5	1.30 11.63	
0.60 YE L0005090	0 0	.00000E+00	649234.0 4290715.8	49.5	1.30 11.63	
0.60 YE L0005091	0 0	.00000E+00	649255.3 4290702.8	49.5	1.30 11.63	
MITIGATED		***	*** 3RD LEG LAYOVE 07/18/23 *** 17:16:07	ER CNONSTRUC	TION EMISSIONS	-
*** MODELC	OPTs: RegD	FAULT CONC	PAGE 8 ELEV FLGPOL URBA	N ADJ_U*		
***			*** SOURCE	IDs DEFINING	G SOURCE GROUPS	5
SRCGROUP I				SOURCE	IDs 	
ALL L0000006	L0000001 , L0000007	, L0000002 , L000000	-	L0000004	, L0000005	,
L0000014	L0000009 , L0000015	, L0000010 , L000001	,	L0000012	, L0000013	,
L0000022	L0000017 , L0000023	, L0000018 , L000002	,	L0000020	, L0000021	,
L0000030	L0000025 , L0004925	, L0000026 , L000492	,	L0000028	, L0000029	,
L0004932	L0004927 , L0004933	, L0004928 , L000493	,	L0004930	, L0004931	,
L0004940	L0004935 , L0004941	, L0004936 , L000494	•	L0004938	, L0004939	,
L0004947	VOL41 , L0004948	, L0004943 , L000494	•	L0004945	, L0004946	,

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                                                     , L0005041
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VOL2
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            , VOL3
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                                                     , L0005046
                         , L0005050
            , L0005049
L0005048
                                    *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
★ *** AERMOD - VERSION 22112 ***
MITIGATED
                                      07/18/23
                                   ***
 *** AERMET - VERSION
                      19191 ***
                        ***
                                   17:16:07
                                   PAGE
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

SRCGROUP ID SOURCE IDs

L0005051 , L0005052 , L0005057 , L0005058 , L0005053 , L0005054 , L0005055 L0005056 , L0005061 , L0005062 L0005059 , L0005060 , L0005063 , L0005065 , L0005066 L0005064 , , VOL22 V0L12 , VOL32 , L0005067 , L0005068 L0005069 , L0005070 , L0005071 , L0005074 , L0005075 L0005072 , L0005073 , L0005076 , L0005078 , L0005079 L0005077 L0005080 , L0005081 , L0005082 , L0005083 , L0005084 L0005085 , L0005087 , L0005086 L0005088 , L0005089 , L0005090 , L0005091 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -MITIGATED 07/18/23 *** AERMET - VERSION 19191 *** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDS DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP	SOURCE IDs						
L0000005 L0000008	2500000. , L0000006	L0000001 , , L0000007	, L0000002 ,	, L0000003	, L0000004	,		
L0000014	L0000009 , L0000015	, L0000010 , L0000016	, L0000011	, L0000012	, L0000013	,		
L0000022	L0000017 , L0000023	, L0000018 , L0000024	, L0000019	, L0000020	, L0000021	,		
L0000030	L0000025 , L0004925	, L0000026 , L0004926	, L0000027	, L0000028	, L0000029	,		
	L0004927	, L0004928	, L0004929	, L0004930	, L0004931	,		

L0004932	, L0004933	, L0004934	,			
L0004940	L0004935 , L0004941	, L0004936 , L0004942	, L0004937	, L0004938	, L0004939	,
L0004947	VOL41 , L0004948	, L0004943 , L0004949	, L0004944 ,	, L0004945	, L0004946	,
L0004955	L0004950 , L0004956	, L0004951 , L0004957	, L0004952 ,	, L0004953	, L0004954	,
L0004963	L0004958 , L0004964	, L0004959 , L0004965	, L0004960 ,	, L0004961	, L0004962	,
L0004971	L0004966 , L0004972	, L0004967 , L0004973	, L0004968 ,	, L0004969	, L0004970	,
L0004979	L0004974 , L0004980	, L0004975 , L0004981	, L0004976 ,	, L0004977	, L0004978	,
L0004987	L0004982 , L0004988	, L0004983 , L0004989	, L0004984 ,	, L0004985	, L0004986	,
L0004995	L0004990 , L0004996	, L0004991 , L0004997	, L0004992 ,	, L0004993	, L0004994	,
L0005003	L0004998 , L0005004	, L0004999 , L0005005	, L0005000 ,	, L0005001	, L0005002	,
L0005011	L0005006 , L0005012	, L0005007 , L0005013	, L0005008 ,	, L0005009	, L0005010	,
L0005019	L0005014 , L0005020	, L0005015 , L0005021	, L0005016 ,	, L0005017	, L0005018	,
L0005027	L0005022 , L0005028	, L0005023 , L0005029	, L0005024 ,	, L0005025	, L0005026	,
L0005035	L0005030 , L0005036	•	, L0005032 ,	, L0005033	, L0005034	,
VOL2	L0005038 , VOL3	, L0005039 , L0005042	, L0005040 ,	, L0005041	, VOL1	,
MITIGATED	D - VERSION	, L0005050 22112 *** * *** 19191 *** **	** 3RD LEG LAY 07/18/23	, L0005046 YOVER CNONSTRUC	-	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDS DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP			SOURCE	IDs 	
L0005056	L0005051 , L0005057	, L0005052 , L0005058	, L0005053	, L0005054	, L0005055	y
L0005064	L0005059 , L0005065	, L0005060 , L0005066	, L0005061	, L0005062	, L0005063	,
L0005069	VOL12 , L0005070	, VOL22 , L0005071	, VOL32	, L0005067	, L0005068	,
L0005077	L0005072 , L0005078	, L0005073 , L0005079	, L0005074	, L0005075	, L0005076	,
L0005085	L0005080 , L0005086	, L0005081 , L0005087	, L0005082	, L0005083	, L0005084	,
MITIGATED	D - VERSION		** 3RD LEG LA 07/18/23	, L0005091 YOVER CNONSTRUC	-	-

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2, 649826.2, 649838.2, 649850.2, 649862.2,

*** Y-COORDINATES OF GRID ***

(METERS)

4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0, 4291359.0, 4291376.0, 4291393.0,

4291410.0,

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -*** 07/18/23 **MITIGATED**

*** AERMET - VERSION 19191 ***

*** 17:16:07

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

Y-COORD

* ELEVATION HEIGHTS IN METERS *

X-COORD (METERS)

1 COOKD	I					A COUND	(1121213)
(METERS)	6497	742.20	649754.	20 6497	766.20	649778.20	649790.20
649802.20	649814.20	649826	6.20	649838.20			
					-		
4291409.99	I	54.60	54.	80	54.90	54.80	54.90
5/ 00	51 00	51	5 00	55 00			
4291392.99	1	54.70	54.	80	54.80	54.80	54.80
54.80	54.90	54	4.90	55.00		54.80	
4291375.99	1	54.80	54.	90	54.90	54.90	54.90
54.90	54.90	54	4.90	55.00		54.90	
4291358.99		54.80	54.	90	54.90	54.90	54.90
54.90	54.90	54	4.90	55.00			
4291341.99		54.80	54.	80	54.90	55.00	55.00
55.00	55.00	54	4.90	54.90		55.00	
4291324.99		54.80	54.	90	55.20	55.40	55.40
55.30	55.20	5!	5.00	54.90			
4291307.99		55.00	54.	90	55.10	55.20	55.20
55.30	55.60	5!	5.60	55.40			
4291290.99		56.10	56.	20	56.50	56.80	56.70
57.00	56.80	56	6.10	55.50			
4291273.99		57.10	57.	80	57.90	58.00	58.00
57.90	57.10	5!	5.80	55.30			
						58.00	58.00
58.00	57.00	5!	5.60	55.00			
						57.30	57.30
57.20							
★ *** AERMOD	- VERSION	22112 *	** ***	* 3RD LEG I	LAYOVER	${\tt CNONSTRUCTION}$	EMISSIONS -
MITTGATED		***	0	7/10/22			

MITIGATED 07/18/23

*** 17:16:07

^{***} AERMET - VERSION 19191 *** ***

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	 6498	350.20 	649 	862.2 	0 		X-COORD	(METERS)
						-		
4291409.99	1	55.10		55.1	0			
4291392.99	İ	55.10		55.2	0			
4291375.99	İ	55.20		55.2	0			
4291358.99	Ì	55.10		55.2	0			
4291341.99	İ	55.00		55.1	0			
4291324.99	İ	54.90		54.8	0			
4291307.99		55.00		54.6	0			
4291290.99		55.10		54.6	0			
4291273.99	1	55.10		54.5	0			
4291256.99	1	54.90		54.2	0			
4291239.99		53.90		53.7	0			
★ *** AERMOD	- VERSION	22112	***	***	3RD LEG	LAYOVER	CNONSTRUCTION	EMISSIONS -
MITIGATED		***		07	/18/23			
*** AERMET -	VERSION	19191 *	**	***				
		***		17:16	:07			
				PAGE	15			
*** MODELOPT	s: Reg	DFAULT	CONC	ELEV		URBAN	ADJ_U*	

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

Y-COORD |

* HILL HEIGHT SCALES IN METERS *

X-COORD (METERS)

(METERS)	6497	742.20 649	9754.20	6497	766.20	649778.20	649790.20
649802.20	649814.20	649826.20	649	838.20			
					-		
4291409.99	1	54.60	54.80		54.90	54.80	54.90
54.90	54.90	55.00)	55.00			
4291392.99	1	54.70	54.80		54.80	54.80	54.80
54.80	54.90	54.90)	55.00			
4291375.99	1	54.80	54.90		54.90	54.90	54.90
54.90	54.90	54.90)	55.00			
4291358.99		54.80	54.90		54.90	54.90	54.90

54.90	54.90		54.90		55.00			
4291341.99	I	54.80		54.80		54.90	55.00	55.00
55.00	55.00		54.90		54.90		22.00	22100
4291324.99	I	54.80		54.90		55.20	55.00 55.40 57.90	55.40
55.30	55.20	300	55.00	31130	54.90	33.20	33	331.10
4291307.99	1	55.00	33.00	54.90	550	57.90	57.90	57.90
57.90	55.60	33.00	55.60	31130	55.40	37.00	37.130	37.130
4291290.99	1	56.10	33.00	57.50	330	57.90	57.90	57.90
4291290.99 57.90	56.80	30120	56.10		55.50	5	2	27.120
4291273.99	1	57.40	30.10	57.80	33.30	57.90	58.00	58.00
4291273.99 57.90 4291256.99 58.00	57.80		57.80		55.30	5	20.00	20100
4291256.99	1	57.70	27.000	58.00		57.90	58.00	58.00
58.00	57.00	3, 1, 0	57.80	30.00	55.00	37.130	30.00	30.00
4291239.99	1	57.60	37.00	57.60	33.00	57.40	57.30	57.30
57.50	57.30	37.00	58.00	37.00	58.00	37.10	37.30	37.30
▲ *** ΔFRMOD	- VERSTON	22112	***	*** 3R	D I FG	ΙΔΥΩVER	CNONSTRUCTION	FMTSSTONS -
	VERSION					LATOVER	CNONSTRUCTION	LHISSIONS
*** AERMET -	VERSTON	19191	***	***	0, 23			
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			•	17.10.0	,			
			ı	PAGE 1	6			
*** MODELOPT	c. Pogl	NEALLI T				HDDAN	۱۱*	
MODELOFI	s. Kegi	HOLI	CONC	LLLV	LUFUL	UNDAN	ADJ_O	
			*:	** NETU	ODV TO	• DUCERI	IGH ; NETWORK	TVDE •
GRIDCART ***				··INCIM	OKK ID	. KOSENI	IGH , NETWORK	ITPE.
GKIDCAKI								
						* UTII L	IETCHT CONFEC T	N METEDC *
					;	* HILL F	HEIGHT SCALES I	N METERS *
V COOPD	ı				:	* HILL F		
Y-COORD		DEA 20	6409	962 2A		* HILL F		N METERS * (METERS)
Y-COORD (METERS)		350.20	6498	862.20		* HILL F		
		350.20 	6498 	862.20 		* HILL		
		350.20 	6498 	862.20 		* HILL F -		
(METERS) 	6498 					* HILL F -		
(METERS)	6498 ·	 55.10		 55.10		* HILL F 		
(METERS)	6498 ·	55.10 55.10		55.10 55.20		* HILL F -		
(METERS)	6498 ·	55.10 55.10 55.20		55.10 55.20 55.20		* HILL F -		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99	6498 ·	55.10 55.20 55.10		55.10 55.20 55.20 55.20		* HILL F -		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99	6498 ·	55.10 55.10 55.20 55.10 55.00		55.10 55.20 55.20 55.20 55.20		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99 4291324.99	6498 ·	55.10 55.10 55.20 55.10 55.00 54.90		55.10 55.20 55.20 55.20 55.10 54.80		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99 4291324.99 4291307.99	6498 ·	55.10 55.10 55.20 55.10 55.00 54.90 55.00		55.10 55.20 55.20 55.20 55.10 54.80 54.60		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99 4291307.99 4291290.99	6498 ·	55.10 55.10 55.20 55.10 55.00 54.90 55.00 55.10		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99 4291324.99 4291307.99 4291290.99 4291273.99	6498 ·	55.10 55.10 55.20 55.10 55.00 54.90 55.00 55.10		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291341.99 4291324.99 4291307.99 4291290.99 4291273.99 4291256.99	6498 ·	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20		* HILL F		
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291341.99 4291324.99 4291307.99 4291290.99 4291273.99 4291256.99 4291239.99	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90 53.90		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20 53.70		 -	X-COORD	(METERS)
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90 53.90 22112	***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20 53.70 *** 3R	 D LEG	 -		(METERS)
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291324.99 4291307.99 4291290.99 4291273.99 4291239.99 ★ *** AERMOD MITIGATED	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 54.90 53.90 22112 **	***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20 53.70 *** 3R	 D LEG	 -	X-COORD	(METERS)
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 55.00 55.10 55.10 55.10 54.90 53.90 22112 **	*** ***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.70 *** 3R 07/1	 D LEG 8/23	 -	X-COORD	(METERS)
(METERS) 4291409.99 4291392.99 4291375.99 4291358.99 4291324.99 4291307.99 4291290.99 4291273.99 4291239.99 ★ *** AERMOD MITIGATED	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 54.90 53.90 22112 **	*** ***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20 53.70 *** 3R	 D LEG 8/23	 -	X-COORD	(METERS)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS) 649802.20	•						X-COORD 649778.20	(METERS) 649790.20
4291409.99 1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291392.99 1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291375.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291358.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291341.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291324.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291307.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291290.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291273.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291256.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291239.99 1.80		1.80	1.80	1.80	1.80	1.80	1.80	1.80
		22112	***		LEG	LAYOVER	CNONSTRUCTION	EMISSIONS -
*** AERMET -	VERSION	19191 ***		*** 17:16:07				
*** MODELOPT	s: Reg[FAULT		PAGE 18 ELEV F		URBAN	ADJ_U*	
CDIDCADI ***			**	** NETWO	RK ID	: ROSEHI	GH; NETWORK	TYPE:

GRIDCART ***

Y-COORD | X-COORD (METERS) | 649850.20 649862.20

^{*} RECEPTOR FLAGPOLE HEIGHTS IN METERS *

4291409.99	1.80	1.80		
4291392.99	1.80	1.80		
4291375.99	1.80			
4291358.99	1.80			
4291341.99	1.80	1.80		
4291324.99	1.80			
4291307.99	1.80	1.80		
4291290.99	1.80	1.80		
4291273.99 4291256.99	1.80			
4291230.99	1.80 1.80	1.80		
•		* *** 3RD LEG LAY	OVER CNONSTRUC	TTON FMTSSTONS -
	***		OVER CHORSTROE	11014 11113310113
	ERSION 19191 ***			
	***	17:16:07		
		PAGE 19		
*** MODELOPTs:	RegDFAULT CO	NC ELEV FLGPOL U	IRBAN ADJ_U*	
		*** DT	CCDETE CADTECT	N DECEDIODE ***
				AN RECEPTORS *** EV, ZHILL, ZFLAG)
		(X-COOKD	METERS)	
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★ *** AERMOD - VERSION 22112 ***
                                    *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                           ***
MITIGATED
                                      07/18/23
                                   ***
                      19191 ***
 *** AERMET - VERSION
                        ***
                                   17:16:07
                                   PAGE 20
 *** MODELOPTs:
                   RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
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     (649241.0, 4290874.6,
                                 52.3,
                                                         0.0);
                                                                       (649221.3,
                                             52.3,
               52.5,
                           52.5,
                                       0.0);
4290859.1,
                                 52.3,
                                                         0.0);
                                                                       (649182.1,
     (649201.7, 4290843.6,
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                                       0.0);
                51.5,
                           51.5,
4290828.1,
                                 51.1,
                                                                       (649684.2,
     (649158.3, 4290816.1,
                                             51.1,
                                                         1.8);
                           55.4,
                                       1.8);
4291223.8,
                55.4,
                                 49.7,
     (649247.5, 4290740.0,
                                             49.7,
                                                         0.0);
                                                                       (649225.7,
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                                       0.0);
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                                             50.1,
     (649245.6, 4290784.9,
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                                                                       (649265.4,
4290800.1,
                50.0,
                           50.0,
                                        0.0);
                                 50.0,
     (649285.2, 4290815.3,
                                                         0.0);
                                                                       (649305.1,
                                             50.0,
                                       0.0);
4290830.5,
                50.0,
                           50.0,
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( 649324.9, 4290845.7,
                                 50.0,
                                                        0.0);
                                                                      (649344.8,
                                            50.0,
                           49.9,
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                49.9,
                                       0.0);
     (649364.6, 4290876.1,
                                 50.0,
                                                        0.0);
                                                                      (649384.5,
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4290891.3,
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                                       0.0);
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     (649404.3, 4290906.5,
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                                                                      (649424.2,
                                                        0.0);
4290921.7,
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                                       0.0);
                                 51.0,
                                                                      (649463.8,
     ( 649444.0, 4290936.9,
                                            51.0,
                                                        0.0);
                          51.0,
               51.0,
                                       0.0);
4290952.1,
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                                            51.2,
                                                        0.0);
                                                                      (649503.5,
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4290982.5,
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     (649523.4, 4290997.8,
                                                        0.0);
                                                                      (649543.2,
                                            51.1,
4291013.0,
                         51.3,
                51.3,
                                       0.0);
                                 51.4,
     (649563.1, 4291028.2,
                                                        0.0);
                                                                      (649582.9,
                                            51.4,
                          51.6,
4291043.4,
                51.6,
                                       0.0);
     ( 649602.7, 4291058.6,
                                 51.8,
                                            51.8,
                                                        0.0);
                                                                      (649622.6,
                           52.2,
                                       0.0);
4291073.8,
                52.2,
                                 52.6,
                                            52.6,
     (649642.4, 4291089.0,
                                                        0.0);
                                                                      (649662.3,
                        53.5,
                                       0.0);
4291104.2,
                53.5,
★ *** AERMOD - VERSION 22112 ***
                                    *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                           ***
                                      07/18/23
MITIGATED
                                   ***
 *** AERMET - VERSION 19191 ***
                                   17:16:07
                                   PAGE 21
 *** MODELOPTs:
                   RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                             *** DISCRETE CARTESIAN RECEPTORS ***
                                           (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                           (METERS)
     ( 649682.1, 4291119.4,
                                            53.3,
                                                        0.0);
                                                                      (649702.0,
                                 53.3,
                          53.5,
               53.5,
                                       0.0);
4291134.6,
                                 55.2,
     (649673.2, 4291163.0,
                                            55.2,
                                                        0.0);
                                                                      (649653.3,
4291147.8,
                54.5,
                           54.5,
                                       0.0);
                                 53.7,
                                            53.7,
     (649633.5, 4291132.5,
                                                        0.0);
                                                                      (649613.7,
                          52.9,
                                       0.0);
                52.9,
4291117.3,
                                 52.6,
                                            52.6,
     (649593.8, 4291102.1,
                                                        0.0);
                                                                      (649574.0,
                          52.3,
                                       0.0);
                52.3,
4291086.9,
     ( 649554.1, 4291071.7,
                                 52.2,
                                            52.2,
                                                        0.0);
                                                                      (649534.3,
                                       0.0);
                          52.1,
               52.1,
4291056.5,
                                 51.7,
                                            51.7,
     (649514.4, 4291041.3,
                                                        0.0);
                                                                      (649494.6,
                           51.7,
4291026.1,
                51.7,
                                       0.0);
     (649474.8, 4291010.9,
                                 52.1,
                                            52.1,
                                                        0.0);
                                                                      (649454.9,
                           52.3,
                                       0.0);
4290995.7,
                52.3,
     (649435.1, 4290980.5,
                                 52.1,
                                            52.1,
                                                        0.0);
                                                                      (649415.2,
                           51.5,
4290965.3,
                51.5,
                                       0.0);
                                 50.5,
     (649395.4, 4290950.1,
                                            50.5,
                                                        0.0);
                                                                      (649375.5,
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                                       0.0);
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                50.2,
                                 50.3,
     (649355.7, 4290919.6,
                                                        0.0);
                                                                      (649335.9,
                                            50.3,
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0.0);

50.5,

50.5,

4290904.4,

(649316.0, 4290889.2,	50.6,		0.0);	(649296.2,
4290874.0, 50.8, 50.8, 649276.3, 4290858.8,	50.9,	50.9,	0.0);	(649256.5,
4290843.6, 51.0, 5 (649236.6, 4290828.4, 4290813.2, 51.6, 5	51.4,	51.4,	0.0);	(649216.8,
(649185.1, 4290793.9,	50.7,	50.7,	1.8);	(649699.4,
4291179.0, 56.0, 5 ★ *** AERMOD - VERSION 22113 MITIGATED ** *** AERMET - VERSION 19193 ***	2 *** *** 3RD ⁴ **	LEG LAYOVER /23	CNONSTRUCTION	EMISSIONS -
	PAGE 22			
*** MODELOPTs: RegDFAULT	CONC ELEV FI	_GPOL URBAN	ADJ_U*	
* SOUF BE PERFORMED *	RCE-RECEPTOR COME	BINATIONS FOR	WHICH CALCUL	ATIONS MAY NOT
LESS	THAN 1.0 METER	; WITHIN OPEN	PIT; OR BEYON	D 80KM FOR
FASTAREA/FASTALL				
	SOURCE	RECEPT	OR LOCATION -	_
DISTANCE	TD	YR (METERS) YR (METER:	s)
(METERS)	10	XII (HLILIIS) IN (METER.	3)
	L0000009	650194.	2 4291271	.5
-14.43	L0000009	650195.	6 4291266	.8
-10.33	L0000009		4 4291262	
-6.66				
-2.04	L0000009	650197.	8 4291257	.9
-4.41	L0000009	650206.	4 4291276	.2
-1.78	L0000009	650208.	5 4291273	.2
	L0000010	650194.	2 4291271	.5
-4.62	L0000010	650195.	6 4291266	.8
-1.77	L0000010	650206.	4 4291276	.2
-14.94	L0000010	650208.	5 4291273	. 2
42.20	20000010	030200.	J 72712/J	• -

L0000010

650210.1 4291268.6

-12.30

-7.71	L0000010	650212.3	4291264.6
-3.53	L0000010	650235.3	4291286.2
-0.60	L0000011	650235.3	4291286.2
-17.61	L0000011	650236.7	4291283.0
-14.29	L0000011	650238.2	4291279.8
-10.85	L0000011	650239.2	4291276.2
-7.13			
-3.93	L0000011	650239.7	4291273.0
-4.77	L0000011	650256.4	4291292.0
-1.93	L0000011	650258.0	4291286.8
-15.07	L0000012	650256.4	4291292.0
-10.41	L0000012	650258.0	4291286.8
-3.59	L0000012	650260.0	4291279.8
-5.15	L0004979	649216.8	4290755.2
-0.69	L0004980	649247.5	4290740.0
-7.14	L0004981	649247.5	4290740.0
	L0005045	650053.1	4291363.7
-25.36	L0005045	650066.5	4291373.5
-29.29	L0005045	650079.0	4291366.4
-42.75	L0005046	650053.1	4291363.7
-10.32	L0005047	649907.3	4291317.2
-5.40	L0005047	649903.8	4291306.5
-11.94	L0005047	649917.2	4291272.5
-45.05	L0005047	649911.8	4291301.1
-21.14	L0005047	649924.3	4291302.9
-26.31	L0005070	650053.1	4291363.7
	200000,0	556555 . ±	. 2 2 2 3 0 3 • 7

-25.36			
-29.29	L0005070	650066.5	4291373.5
-42.75	L0005070	650079.0	4291366.4
	L0005071	650053.1	4291363.7
-10.32	L0005072	649907.3	4291317.2
-5.40 ↑ *** AERMOD - VERSION 22112 MITIGATED * *** AERMET - VERSION 19191 ***	97/18/23	G LAYOVER CNONS	STRUCTION EMISSIONS -
*** MODELOPTs: RegDFAULT	PAGE 23 CONC ELEV FLGPO	OL URBAN ADJ_	_U*
* SOUF BE PERFORMED *	CE-RECEPTOR COMBINA	ATIONS FOR WHIC	CH CALCULATIONS MAY NOT
	THAN 1.0 METER; W	ITHIN OPENPIT;	OR BEYOND 80KM FOR
FASTAREA/ FASTALL			
	SOURCE	RECEPTOR LO	OCATION
DISTANCE			
	ID :	XR (METERS) \	/R (METERS)
(METERS)	ID ,	XR (METERS)	/R (METERS)
(METERS)	ID ;	XR (METERS)	/R (METERS)
(METERS)	ID	XR (METERS) \	/R (METERS)
-11.94			4291306.5
 -11.94 -45.05		649903.8	4291306.5
- 11.94 -45.05 -21.14	L0005072	649903.8 649917.2	4291306.5 4291272.5 4291301.1
	L0005072 L0005072 L0005072 L0005072 2 *** *** 3RD LE *** 07/18/23	649903.8 649917.2 649911.8 649924.3	4291306.5 4291272.5 4291301.1 4291302.9
-11.94 -45.05 -21.14 -26.31 *** AERMOD - VERSION 22112 MITIGATED *** AERMET - VERSION 19191 ***	L0005072 L0005072 L0005072 L0005072 2 *** *** 3RD LE ** 07/18/23 *** ***	649903.8 649917.2 649911.8 649924.3 G LAYOVER CNONS	4291306.5 4291272.5 4291301.1 4291302.9 STRUCTION EMISSIONS -
-11.94 -45.05 -21.14 -26.31 *** AERMOD - VERSION 22112 MITIGATED *** AERMET - VERSION 19191 ***	L0005072 L0005072 L0005072 L0005072 2 *** *** 3RD LE ** 07/18/23 *** *** 17:16:07 PAGE 24 CONC ELEV FLGPO	649903.8 649917.2 649911.8 649924.3 G LAYOVER CNONS	4291306.5 4291272.5 4291301.1 4291302.9 STRUCTION EMISSIONS -

1111111 11111111111 1111111 1111111111 1111111111 1111111111 1 1 1 1 1 1 1 1 1 1 1 1 1 1111111 1111111111 1111111111 1111111111 11111111111 1 1 1 1 1 1 1 1 1 1 1111111111 111111 1 1 1 1 1 1 1 1 1 1 1111111111 1111111111 1 1 1 1 1 1 1 1 1 1 1 1 1 1111111111 1 1 1 1 1 1 1 1111111111 1111111111 111111 1111111111 11111

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23,

10.80,

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23

*** AERMET - VERSION 19191 *** ***

*** 17:16:07

PAGE 25

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL

DATA ***

Surface file: ..\..\MET DATA\14-18.SFC

Met Version: 19191

Profile file: ..\..\MET DATA\14-18.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 93225 Upper air station no.: 23230

Name: UNKNOWN Name:

OAKLAND/WSO AP

Year: 2014 Year: 2014

First 24 hours of scalar data
YR MO DY JDY HR HO U* W* DT/DZ ZICNV ZIMCH M-O LEN ZO BOWEN ALBEDO REF WS WD HT REF TA HT 14 01 01 1 01 -15.5 0.166 -9.000 -9.000 -999. 162. 30.3 0.05 1.00 2.36 211. 10.1 275.4 2.0 14 01 01 1 02 -3.4 0.079 -9.000 -9.000 -999. 56. 13.1 0.06 0.69 1.06 188. 10.1 273.8 2.0 14 01 01 1 03 -12.2 0.146 -9.000 -9.000 -999. 134. 23.5 0.05 0.69 2.10 136. 10.1 275.9 2.0 14 01 01 1 04 -23.3 0.226 -9.000 -9.000 -999. 257. 56.0 0.05 0.69 3.15 142. 10.1 277.0 2.0 14 01 01 1 05 -16.2 0.171 -9.000 -9.000 -999. 170. 32.2 0.06 0.69 2.33 186. 10.1 274.9 2.0 14 01 01 1 06 -3.0 0.076 -9.000 -9.000 -999. 55. 12.9 0.06 0.69 1.00 0.99 204. 10.1 273.1 2.0 14 01 01 1 07 -4.8 0.092 -9.000 -9.000 -999. 67. 14.7 0.07 0.69 1.28 171. 10.1 272.0 2.0 1.00 14 01 01 1 08 -1.8 0.065 -9.000 -9.000 -999. 40. 14.3 0.06 0.67 183. 10.1 273.1 2.0 14 01 01 1 09 -0.3 0.062 -9.000 -9.000 -999. 37. 75.4 0.06 0.69 0.82 181. 10.1 278.1 2.0 0.41 14 01 01 1 10 36.6 0.151 0.431 0.020 80. 141. -8.6 0.05 0.69 0.28 1.55 141. 10.1 280.4 2.0 14 01 01 1 11 65.9 0.162 0.666 0.019 163. 157. -5.9 0.07 0.69 0.24 1.48 161. 10.1 283.1 2.0 14 01 01 1 12 82.5 0.174 0.784 0.017 212. 175. -5.8 0.07 0.69 1.59 152. 10.1 285.9 2.0 0.69 14 01 01 1 14 74.8 0.234 0.838 0.014 286. 272. -15.6 0.05 0.69 0.23 2.56 229. 10.1 288.1 2.0 14 01 01 1 15 42.8 0.198 0.714 0.013 308. 212. -16.5 0.06 0.69 0.26 2.08 180. 10.1 288.8 2.0 14 01 01 1 16 15.1 0.151 0.507 0.013 315. 141. -20.7 0.06 0.69 0.35 1.62 194. 10.1 288.1 2.0 14 01 01 1 17 -9.6 0.137 -9.000 -9.000 -999. 122. 24.4 0.05 0.69 1.96 223. 10.1 286.4 2.0 14 01 01 1 18 -1.5 0.061 -9.000 -9.000 -999. 38. 13.6 0.04 0.69 0.65 251. 10.1 283.8 2.0 14 01 01 1 19 -1.5 0.058 -9.000 -9.000 -999. 34. 12.1 0.02 0.69 0.72 47. 10.1 280.9 2.0 14 01 01 1 20 -3.4 0.076 -9.000 -9.000 -999. 11.8 0.03 50. 0.69 1.00 1.20 81. 10.1 278.8 2.0 14 01 01 1 21 -2.2 0.065 -9.000 -9.000 -999. 40. 11.5 0.03 0.69 0.91 73. 10.1 278.8 2.0 1.00 14 01 01 1 22 -1.6 0.059 -9.000 -9.000 -999. 35. 12.0 0.02 1.00 0.74 22. 10.1 279.2 2.0

```
2.0
              60.
                   10.1 277.0
       0.82
14 01 01
           1 24
                 -5.1 0.090 -9.000 -9.000 -999. 65.
                                                         13.1 0.02
                                                                     0.69
1.00
       1.57
              34.
                   10.1 276.4
                                 2.0
First hour of profile data
YR MO DY HR HEIGHT F WDIR
                            WSPD AMB_TMP sigmaA sigmaW sigmaV
                                   275.4 99.0 -99.00 -99.00
14 01 01 01
             10.1 1 211.
                            2.36
F indicates top of profile (=1) or below (=0)
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                         ***
                                   07/18/23
MITIGATED
*** AERMET - VERSION
                     19191 ***
                                17:16:07
                                PAGE 26
 *** MODELOPTs:
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                            *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                               INCLUDING SOURCE(S):
                                                      L0000001
                                                                  . L0000002
 , L0000003
                           , L0000005
              , L0000004
                                        , L0000008 , L0000009
                L0000006
                           , L0000007
                                                                  , L0000010
              , L0000012
                           , L0000013
 , L0000011
                                        , L0000016 , L0000017
                L0000014
                           , L0000015
                                                                  , L0000018
                           , L0000021
 , L0000019
              , L0000020
                                        , L0000024
                                                     , L0000025
                           , L0000023
                L0000022
                                                                  , L0000026
  L0000027
              , L0000028
                                 *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                     ** CONC OF DPM
                                                        IN MICROGRAMS/M**3
                  **
   Y-COORD
                                                          X-COORD (METERS)
   (METERS) | 649742.20 649754.20 649766.20
                                                      649778.20
                                                                  649790.20
649802.20
            649814.20 649826.20
                                    649838.20
                   0.00052
 4291409.99
                               0.00054
                                            0.00056
                                                        0.00058
                                                                    0.00060
 0.00063
              0.00065
                          0.00068
                                      0.00071
 4291392.99
                   0.00054
                               0.00056
                                            0.00058
                                                        0.00060
                                                                    0.00063
 0.00065
              0.00068
                          0.00071
                                      0.00075
 4291375.99
                   0.00056
                               0.00058
                                                        0.00062
                                            0.00060
                                                                    0.00065
 0.00068
              0.00071
                          0.00075
                                      0.00079
 4291358.99
                               0.00060
                                            0.00062
                                                        0.00065
                                                                    0.00068
                   0.00058
 0.00071
              0.00075
                          0.00079
                                     0.00083
```

14 01 01 1 23 -1.9 0.063 -9.000 -9.000 -999. 38.

11.9 0.03

0.69

```
0.00074
              0.00078
                          0.00083
                                      0.00088
 4291324.99
                   0.00063
                                0.00065
                                                        0.00071
                                                                     0.00074
                                            0.00068
 0.00077
              0.00082
                          0.00087
                                      0.00093
                   0.00066
                                                        0.00074
                                                                     0.00078
 4291307.99
                                0.00068
                                            0.00071
 0.00081
              0.00086
                          0.00091
                                      0.00097
 4291290.99
                                                        0.00076
                                                                     0.00080
                   0.00069
                                0.00071
                                            0.00073
 0.00083
              0.00088
                          0.00096
                                      0.00103
                   0.00071
                                0.00072
 4291273.99
                                            0.00075
                                                        0.00078
                                                                     0.00082
 0.00086
              0.00093
                          0.00103
                                      0.00111
 4291256.99
                   0.00073
                                0.00076
                                            0.00079
                                                        0.00083
                                                                     0.00087
                                      0.00122
 0.00091
              0.00100
                          0.00112
 4291239.99
                   0.00078
                                0.00081
                                            0.00086
                                                        0.00090
                                                                     0.00095
              0.00110
                          0.00125
                                      0.00139
↑ *** AERMOD - VERSION 22112 ***
                                  *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                                    07/18/23
MITIGATED
                     19191 ***
 *** AERMET - VERSION
                      ***
                                 17:16:07
                                 PAGE 27
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                            *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                                INCLUDING SOURCE(S):
                                                       L0000001
                                                                   , L0000002
                           , L0000005
 , L0000003
              , L0000004
                                        , L0000008
                L0000006
                           , L0000007
                                                      , L0000009
                                                                   , L0000010
 , L0000011
              , L0000012
                           , L0000013
                L0000014
                           , L0000015
                                          L0000016
                                                      , L0000017
                                                                   , L0000018
 , L0000019
              , L0000020
                           , L0000021
                L0000022
                           , L0000023
                                          L0000024
                                                      , L0000025
                                                                   , L0000026
  L0000027
              , L0000028
                                 *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                      ** CONC OF DPM
                                                        IN MICROGRAMS/M**3
   Y-COORD
                                                          X-COORD (METERS)
    (METERS)
                  649850.20
                              649862.20
  4291409.99
                    0.00074
                                0.00077
  4291392.99
                    0.00078
                                0.00082
 4291375.99
                    0.00083
                                0.00088
 4291358.99
                    0.00088
                                0.00094
  4291341.99
                    0.00094
                                0.00100
  4291324.99
                    0.00099
                                0.00107
```

0.00068

0.00071

4291341.99 | 0.00060 0.00063 0.00065

```
      4291307.99 |
      0.00105
      0.00115

      4291290.99 |
      0.00112
      0.00123

 4291273.99
                 0.00120
                              0.00132
 4291256.99
                  0.00131
                              0.00144
 4291239.99 | 0.00150
                              0.00162
↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                     ***
                                07/18/23
MITIGATED
 *** AERMET - VERSION 19191 *** ***
                     ***
                               17:16:07
                               PAGE 28
 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                           *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                              INCLUDING SOURCE(S): L0000001 , L0000002
 , L0000003 , L0000004 , L0000005
                                     , L0000008 , L0000009 , L0000010
               L0000006 , L0000007
             , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018
 , L0000011
                         , L0000021
 , L0000019 , L0000020
               L0000022 , L0000023 , L0000024 , L0000025 , L0000026
 , L0000027 , L0000028
                         , . . .
                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
                                    ** CONC OF DPM IN MICROGRAMS/M**3
      X-COORD (M) Y-COORD (M) CONC
                                                            X-COORD (M)
Y-COORD (M) CONC
        650194.23 4291271.45 0.00109
                                                              650195.61
4291266.76 0.00105
        650196.44 4291262.63 0.00116
                                                              650197.82
4291257.94 0.00111
        650199.75 4291253.25 0.00122
                                                              650201.96
4291248.01 0.00114
                                  0.00107
        650204.16 4291242.49
                                                              650205.82
4291236.70 0.00101
        650212.33 4291238.72
                                    0.00101
                                                              650218.31
4291240.52 0.00100
        650224.69 4291242.51
                                   0.00100
                                                              650232.67
4291245.31 0.00101
        650241.05 4291248.30 0.00101
                                                              650249.22
4291250.89 0.00102
        650256.60 4291253.68 0.00102
                                                              650266.17
4291257.07 0.00103
```

650206.35 4291276.22	0.00108	650208.54
4291273.23 0.00106		
650210.14 4291268.64	0.00118	650212.33
4291264.65 0.00113 650235.26 4291286.19	0 00110	650236.66
4291283.00 0.00122	0.00110	030230.00
650238.25 4291279.81	0.00119	650239.25
4291276.22 0.00115		
650239.65 4291273.03	0.00112	650256.40
4291291.97 0.00109 650258.00 4291286.79	0 00106	650259.99
/291279 81 A AA115		030233.33
650260.59 4291272.43	0.00122	650263.78
4291266.05 0.00113 649381.16 4290586.76		
	0.00074	649394.57
4290600.17 0.00078 649410.67 4290612.69	0 00080	649425.86
4290624.31 0.00080		
649417.82 4290633.25	0.00088	649410.67
4290643.08 0.00097	0.0000	649400.83
649391.89 4290566.20 4290559.05 0.00060	0.00063	649400.83
649406.20 4290552.79	0.00057	649414.24
4290537.59 0.00052		
649435.70 4290606.43	0.00070	649444.64
4290599.28 0.00066 649449.11 4290591.23	0.00063	640450.05
649449.11 4290591.23 4290584.08 0.00059	0.00062	649458.05
649458.05 4290643.98	0.00078	649468.77
4290628.78 0.00069		
649481.29 4290618.95	0.00063	649497.38
4290607.32 0.00057	0.00151	649462.52
649452.68 4290733.37 4290744.99 0.00153	0.00151	649462.52
649473.24 4290753.04	0.00148	649487.55
4290761.98 0.00141		
649458.94 4290719.07	0.00127	649482.18
4290692.25 0.00091 649496.49 4290676.16	0 00079	649494.70
4290750.36 0.00122	0.00076	049494.70
649510.79 4290725.33	0.00095	649531.35
4290701.19 0.00076		
649512.58 4290658.28	0.00067	649505.43
4290620.73 0.00059 649581.89 4290816.00	0 00126	649595.63
4290822.01 0.00119	0.00120	049393.03
649605.89 4290832.53	0.00118	649616.82
4290841.57 0.00114		
649599.29 4290800.42	0.00100	649604.66
4290787.90 0.00090		

649623.43 4290818.30	0.00095	649627.90		
4290802.21 0.00085 649634.60 4290882.58		649644.44		
4290891.53 0.00116 649657.85 4290903.15	0.00109	649662.32		
4290845.92 0.00081 649670.37 4290910.31 4290855.76 0.00079	0.00102	649672.16		
649681.10 4290918.35 4290926.40 0.00096	0.00098	649690.04		
649703.46 4290939.81 4290867.38 0.00075	0.00096	649686.47		
649698.09 4290813.73 4290834.29 0.00058		649718.66		
↑ *** AERMOD - VERSION 22112 *** *** MITIGATED *** 0	7/18/23	ON EMISSIONS -		
*** AERMET - VERSION 19191 *** *** *** 17:1	6:07			
PAGE *** MODELOPTs: RegDFAULT CONC ELE	29 V FLGPOL URBAN ADJ_U*			
*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION				
VALUES FOR SOURCE GROUP: ALL *** INCLU	DING SOURCE(S): L0000001	, L0000002		
, L0000003 , L0000004 , L0000005 L0000006 , L0000007	•			
, L0000011 , L0000012 , L0000013	,	•		
L0000014 , L0000015 , L0000019 , L0000020 , L0000021		, L0000018		
L0000022 , L0000023 , L0000023 ,	•	, L0000026		
***	*** DISCRETE CARTESIAN	RECEPTOR POINTS		
**	** CONC OF DPM IN MICRO	OGRAMS/M**3		
X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	K-COORD (M)		
649741.01 4290850.39 4290863.80 0.00053	0.00055	649763.37		
649701.67 4290877.22 4290890.63 0.00071	0.00072	649715.08		
649732.07 4290904.94	0.00069	649910.92		
4290991.68 0.00058 649928.80 4291003.31	0.00060	649945.79		

4291014.04 0.00062		
649962.79 4291022.98	0.00064	650053.10
4291107.93 0.00109	0.00001	650053.10
4291107.93 0.00109 650064.73 4291089.15	0.00091	650085.30
4291104.35 0.00085	0.00031	030003.30
650070.09 4291118.66	0 00101	650083.51
4291131.18 0.00096	0.00101	030003.31
650146.10 4291166.06	0 00079	650157.73
4291151.75 0.00071	0.00073	030137.73
650140.74 4291144.59	0 00074	650115.70
4291125.82 0.00077		
650113.91 4291149.07	0 00084	650178.30
4291183.94 0.00077	0.00084	030178.30
650190.82 4291167.85	0 00070	650434.94
050190.82 4291107.85	0.00070	650454.94
4291167.85 0.00064 650417.06 4291189.31	0.00000	650401 06
650417.06 4291189.31	0.00069	650401.86
4291217.03 0.00078		
650207.81 4291177.68	0.000/0	650225.69
4291183.05 0.00069		
650240.89 4291188.41	0.00070	650258.78
4291195.57 0.00070		
650280.24 4291200.93	0.00071	650293.65
4291207.19 0.00072		
650315.11 4291215.24	0.00075	650333.89
4291220.60 0.00077		
650352.67 4291225.08	0.00079	650374.13
4291231.34 0.00083		
650013.76 4291462.05	0.00081	649930.59
4291369.05 0.00120		
649914.50 4291349.37	0.00130	649935.06
4291335.96 0.00161		
649907.34 4291317.18	0.00125	649919.86
4291361.00 0.00122		
649909.13 4291335.07	0.00141	649903.77
4291306.45 0.00130		
649917.18 4291272.47	0.00179	649911.81
4291301.09 0.00143	0.001/3	0.3311.01
649924.33 4291302.87	0.00156	650053.10
4291363.68 0.00074	0.00130	030033.10
650066.52 4291373.52	0.00096	650079.04
4291366.37 0.00097	0.00050	030073.04
649216.78 4290755.24	0.00542	649667.26
4291204.25 0.00075	0.00542	043007.20
640647 42 4201190 62	0 00075	640627 60
649647.43 4291189.03	0.00075	649627.60
4291173.81 0.00077		
4291173.81 0.00077 649607.77 4291158.59		649627.60 649587.93
4291173.81 0.00077 649607.77 4291158.59 4291143.37 0.00082	0.00078	649587.93
4291173.81 0.00077 649607.77 4291158.59 4291143.37 0.00082 649568.10 4291128.14	0.00078	
4291173.81 0.00077 649607.77 4291158.59 4291143.37 0.00082	0.00078 0.00085	649587.93

4291082.48
4291052.04 0.00105 649449.10 4291036.82 0.00105 649449.44 4291006.38 0.00104 649389.61 4290991.16 0.00102 649358.62 4290967.62 0.00099 649339.01 4290952.12 0.00099 649319.40 4290936.61 0.00099 649299.79 4290921.11 0.00101 649280.17 4290905.61 0.00103 649260.56 4290890.10 0.00108 649240.95 4290874.60 0.00118 649221.34 4290829.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 64925.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MITIGATED *** MODEL
4291021.60
4290991.16
649358.62 4290967.62 0.00099 649319.40 4290936.61 0.00099 649299.79 4290921.11 0.00101 649280.17 4290905.61 0.00103 649260.56 4290890.10 0.00108 649240.95 4290874.60 0.00118 649221.34 4290859.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649247.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
649319.40 4290936.61 0.00099 649299.79 4290921.11 0.00101 649280.17 4290905.61 0.00103 649260.56 4290890.10 0.00108 649240.95 4290874.60 0.00118 649221.34 4290859.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** MITIGATED *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - 07/18/23 *** AERMET - VERSION 19191 *** ***
4290921.11 0.00101 649280.17 4290905.61 0.00103 649260.56 4290890.10 0.00108 649240.95 4290874.60 0.00118 649221.34 4290859.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
4290890.10 0.00108 649240.95 4290874.60 0.00118 649221.34 4290859.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
649240.95 4290874.60 0.00118 649221.34 4290859.10 0.00134 649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
649201.72 4290843.59 0.00162 649182.11 4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
4290828.09 0.00210 649158.28 4290816.10 0.00256 649684.20 4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
4291223.82 0.00073 649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
649247.52 4290740.02 0.00472 649225.72 4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
4290769.65 0.00372 649245.57 4290784.86 0.00246 649265.41 4290800.06 0.00194 ↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***
4290800.06
<pre>★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** ***</pre>
MITIGATED *** 07/18/23 *** AERMET - VERSION 19191 *** *** *** 17:16:07
*** AERMET - VERSION 19191 ***
*** 17:16:07
PAGE 30
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
*** THE DEDTOD / ADCOUNTED ATTOM
*** THE PERIOD (43680 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002
, L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 ,
, 10000027 , 10000028 , ,
*** DISCRETE CARTESIAN RECEPTOR POINTS

** CONC OF DPM IN MICROGRAMS/M**3
**
X-COORD (M) Y-COORD (M) CONC X-COORD (M) Y-COORD (M) CONC

649285.25 4290815.27 4290830.48 0.00167	0.00174	649305.10
4290830.48 0.00167 649324.94 4290845.68	0.00165	649344.78
4290860.89 0.00164 649364.63 4290876.10		649384.47
4290891.31 0.00165		049304.47
649404.31 4290906.51 4290921.72 0.00183	0.00170	649424.16
649444.00 4290936.93	0.00196	649463.84
4290952.13 0.00204 649483.69 4290967.34	0.0000	649503.53
4290982.55 0.00205		
649523.37 4290997.75	0.00191	649543.21
4291012.96 0.00172 649563.06 4291028.17	0.00156	649582.90
4291043.37 0.00145 649602.74 4291058.58		640600 50
1001070 70		649622.59
649642.43 4291088.99	0.00131	649662.27
4291104.20 0.00129 649682.12 4291119.41	0.00129	649701.96
4291134.62 0.00130		649653.34
649673.19 4291162.96 4291147.75 0.00094	0.00093	649653.34
649633.50 4291132.55	0.00096	649613.66
4291117.34 0.00098 649593.81 4291102.13	0.00101	649573.97
4291086.92 0.00106		
649554.13 4291071.72 4291056.51 0.00119		649534.28
4291056.51 0.00119 649514.44 4291041.30	0.00128	649494.60
4291026.10 0.00135 649474.75 4291010.89	0.00138	649454.91
4290995.68 0.00138		
649435.07 4290980.48 4290965.27 0.00131	0.00135	649415.22
649395.38 4290950.06	0.00127	649375.54
4290934.86 0.00123 649355.70 4290919.65	0.00122	649335.85
4290904.44 0.00122		
649316.01 4290889.24 4290874.03 0.00125	0.00123	649296.17
649276.32 4290858.82	0.00131	649256.48
4290843.61 0.00142 649236.64 4290828.41	0.00166	649216.79
4290813.20 0.00212		
649185.13 4290793.92 4291179.00 0.00090	0.00341	649699.43

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↑ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
MITIGATED
                                     07/18/23
*** AERMET - VERSION
                      19191 ***
                       ***
                                  17:16:07
                                  PAGE 31
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                       *** THE SUMMARY OF MAXIMUM PERIOD ( 43680
HRS) RESULTS ***
                                   ** CONC OF DPM
                                                      IN MICROGRAMS/M**3
               **
                        NETWORK
GROUP ID
                              AVERAGE CONC
                                                         RECEPTOR (XR, YR,
ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID
                                    0.00542 AT ( 649216.78, 4290755.24,
ALL
         1ST HIGHEST VALUE IS
49.77,
         49.77,
                   0.00) DC
         2ND HIGHEST VALUE IS
                                    0.00472 AT ( 649247.52, 4290740.02,
         49.72,
                  0.00) DC
49.72,
         3RD HIGHEST VALUE IS
                                    0.00372 AT ( 649225.72, 4290769.65,
49.99,
         49.99,
                  0.00) DC
         4TH HIGHEST VALUE IS
                                    0.00341 AT ( 649185.13, 4290793.92,
         50.69,
50.69,
                   1.80) DC
         5TH HIGHEST VALUE IS
                                    0.00256 AT ( 649158.28, 4290816.10,
51.08,
         51.08,
                   1.80) DC
         6TH HIGHEST VALUE IS
                                    0.00246 AT ( 649245.57, 4290784.86,
50.06,
         50.06,
                   0.00) DC
         7TH HIGHEST VALUE IS
                                    0.00212 AT ( 649216.79, 4290813.20,
51.60,
         51.60,
                   0.00) DC
         8TH HIGHEST VALUE IS
                                    0.00210 AT ( 649182.11, 4290828.09,
51.49,
         51.49,
                   0.00) DC
         9TH HIGHEST VALUE IS
                                    0.00208 AT ( 649483.69, 4290967.34,
         51.16,
                   0.00) DC
51.16,
        10TH HIGHEST VALUE IS
                                    0.00205 AT ( 649503.53, 4290982.55,
         51.21, 0.00) DC
51.21,
 *** RECEPTOR TYPES: GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
★ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
```

07/18/23

MITIGATED

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

****** FATAL ERROR MESSAGES ******

*** NONE ***

	*****	WARNING	MESSAGES	***	*****					
S0	W320 QS	690	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	691	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 OS	692	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320	694	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO	QS W320	695	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	696	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	QS W320	697	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	698	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	699	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	QS W320	702	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	703	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320 QS	704	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter

S0	W320 QS	705	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	706	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	707	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	708	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	711	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	712	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	715	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	716	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	717	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	718	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	721	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	722	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320	723	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	724	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	725	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
so	QS W320	726	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
ME	QS W186	752	MEOPEN:	THRESI	H_1MIN 1-m:	in AS	sos	wind speed tl	nresh	nold used
ME	0.50 W187	752	MEOPEN:	ADJ_U	* Option fo	or S	tab:	le Low Winds	used	in AERMET

^{***} AERMOD Finishes Successfully ***

```
**
*************
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/10/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
CONSTUCT\AERMOD LAYOVER CONSTRUCT.ADI
*************
**
**
***********
** AERMOD CONTROL PATHWAY
************
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - UNMITIGATED
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACREMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER CONSTRUCT.ERR"
CO FINISHED
**
************
** AERMOD SOURCE PATHWAY
************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** ______
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE21
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000273
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 9
** 649987.745, 4291180.599, 52.57, 3.40, 12.39
```

```
** 650122.346, 4291253.260, 53.13, 3.40, 12.39
** 650180.713, 4291277.083, 53.34, 3.40, 12.39
** 650202.154, 4291285.421, 53.39, 3.40, 12.39
** 650285.535, 4291310.436, 53.65, 3.40, 12.39
** 650386.784, 4291334.259, 52.10, 3.40, 12.39
** 650471.356, 4291343.788, 49.96, 3.40, 12.39
** 650496.370, 4291355.700, 49.90, 3.40, 12.39
** 650745.323, 4291364.038, 52.75, 3.40, 12.39
  LOCATION L0000001
                        VOLUME
                                 649993.606 4291183.763 52.59
  LOCATION L0000002
                        VOLUME
                                 650017.048 4291196.418 52.69
  LOCATION L0000003
                        VOLUME
                                 650040.490 4291209.072 52.79
                                 650063.933 4291221.727 52.89
  LOCATION L0000004
                        VOLUME
  LOCATION L0000005
                        VOLUME
                                 650087.375 4291234.382 52.98
  LOCATION L0000006
                        VOLUME
                                 650110.818 4291247.037 53.08
  LOCATION L0000007
                        VOLUME
                                 650134.881 4291258.376 53.18
  LOCATION L0000008
                        VOLUME
                                 650159.546 4291268.443 53.26
                                 650184.234 4291278.452 53.35
  LOCATION L0000009
                        VOLUME
  LOCATION L0000010
                        VOLUME
                                 650209.254 4291287.551 53.41
                                 650234.770 4291295.206 53.49
  LOCATION L0000011
                        VOLUME
  LOCATION L0000012
                        VOLUME
                                 650260.287 4291302.861 53.57
  LOCATION L0000013
                        VOLUME
                                 650285.807 4291310.500 53.65
  LOCATION L0000014
                        VOLUME
                                 650311.739 4291316.601 53.25
  LOCATION L0000015
                                 650337.671 4291322.703 52.85
                        VOLUME
                                 650363.603 4291328.805 52.45
  LOCATION L0000016
                        VOLUME
  LOCATION L0000017
                        VOLUME
                                 650389.592 4291334.575 52.03
  LOCATION L0000018
                        VOLUME
                                 650416.065 4291337.558 51.36
  LOCATION L0000019
                        VOLUME
                                 650442.537 4291340.541 50.69
  LOCATION L0000020
                        VOLUME
                                 650469.010 4291343.524 50.02
                                 650493.276 4291354.226 49.91
  LOCATION L0000021
                        VOLUME
                                 650519.570 4291356.477 50.17
  LOCATION L0000022
                        VOLUME
  LOCATION L0000023
                        VOLUME
                                 650546.195 4291357.368 50.47
  LOCATION L0000024
                        VOLUME
                                 650572.821 4291358.260 50.78
  LOCATION L0000025
                        VOLUME
                                 650599.446 4291359.152 51.08
                                 650626.071 4291360.044 51.38
  LOCATION L0000026
                        VOLUME
  LOCATION L0000027
                        VOLUME
                                 650652.696 4291360.935 51.69
                                 650679.321 4291361.827 51.99
  LOCATION L0000028
                        VOLUME
  LOCATION L0000029
                        VOLUME
                                 650705.946 4291362.719 52.30
  LOCATION L0000030
                        VOLUME
                                 650732.571 4291363.611 52.60
** END OF LINE VOLUME SOURCE ID = SLINE21
** ______
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE31
** DESCRSRC HAUL TRUCK ROUTE
** PREFIX
** LENGTH OF SIDE = 13.32
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.0000273
** ELEVATED
```

** VERTICAL DIMENSION = 6.80

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** SZINIT = 1.58
** NODES = 12
** 650749.382, 4291365.900, 52.80, 3.40, 12.39
** 650769.869, 4291354.193, 53.32, 3.40, 12.39
** 650791.088, 4291354.193, 54.12, 3.40, 12.39
** 650851.817, 4291356.389, 57.08, 3.40, 12.39
** 650904.497, 4291360.779, 59.63, 3.40, 12.39
** 650969.616, 4291360.047, 61.96, 3.40, 12.39
** 651015.712, 4291355.657, 55.86, 3.40, 12.39
** 651047.905, 4291351.267, 55.97, 3.40, 12.39
** 651094.001, 4291343.950, 62.58, 3.40, 12.39
** 651145.218, 4291327.122, 60.86, 3.40, 12.39
** 651181.801, 4291313.220, 59.05, 3.40, 12.39
** 651213.995, 4291296.391, 56.93, 3.40, 12.39
** ______
   LOCATION L0004728
                        VOLUME
                                 650755.165 4291362.596 52.95
   LOCATION L0004729
                        VOLUME
                                 650779.573 4291354.193 53.69
   LOCATION L0004730
                                 650806.203 4291354.740 54.86
                        VOLUME
   LOCATION L0004731
                        VOLUME
                                 650832.826 4291355.702 56.15
   LOCATION L0004732
                                 650859.427 4291357.023 57.45
                        VOLUME
   LOCATION L0004733
                        VOLUME
                                 650885.975 4291359.235 58.73
   LOCATION L0004734
                        VOLUME
                                 650912.551 4291360.688 59.92
   LOCATION L0004735
                        VOLUME
                                 650939.189 4291360.389 60.87
   LOCATION L0004736
                        VOLUME
                                 650965.827 4291360.089 61.82
   LOCATION L0004737
                                 650992.364 4291357.880 58.95
                        VOLUME
   LOCATION L0004738
                        VOLUME
                                 651018.869 4291355.226 55.87
   LOCATION L0004739
                        VOLUME
                                 651045.265 4291351.627 55.96
   LOCATION L0004740
                        VOLUME
                                 651071.584 4291347.508 59.37
   LOCATION L0004741
                        VOLUME
                                 651097.746 4291342.719 62.45
   LOCATION L0004742
                        VOLUME
                                 651123.055 4291334.404 61.60
   LOCATION L0004743
                                 651148.314 4291325.945 60.71
                        VOLUME
   LOCATION L0004744
                                 651173.216 4291316.482 59.47
                        VOLUME
   LOCATION L0004745
                        VOLUME
                                 651197.271 4291305.133 58.03
** END OF LINE VOLUME SOURCE ID = SLINE31
   LOCATION VOL41
                        VOLUME
                                   649972.110 4291194.820
                                                                53.080
** DESCRSRC HAUL TRUCK ROUTE
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE51
** DESCRSRC MOVING TRAIN BALLAST DELIVERY
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 3.28E-07
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 12
** 648625.012, 4291380.197, 48.69, 5.65, 11.16
** 649080.310, 4290820.972, 49.74, 5.65, 11.16
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** 649175.989, 4290754.987, 49.69, 5.65, 11.16
** 649235.376, 4290725.293, 49.89, 5.65, 11.16
** 649281.565, 4290718.695, 49.68, 5.65, 11.16
** 649336.003, 4290731.892, 49.81, 5.65, 11.16
** 649395.390, 4290774.782, 50.00, 5.65, 11.16
** 649664.280, 4290984.286, 51.65, 5.65, 11.16
** 649962.864, 4291218.533, 53.58, 5.65, 11.16
** 650101.433, 4291291.117, 53.69, 5.65, 11.16
** 650320.834, 4291368.650, 53.75, 5.65, 11.16
** 650498.994, 4291401.643, 53.85, 5.65, 11.16
   LOCATION L0004746
                         VOLUME
                                  648628.800 4291375.544 48.70
                                  648643.953 4291356.933 48.73
   LOCATION L0004747
                         VOLUME
   LOCATION L0004748
                         VOLUME
                                   648659.106 4291338.321 48.77
   LOCATION L0004749
                         VOLUME
                                  648674.258 4291319.710 48.80
   LOCATION L0004750
                         VOLUME
                                  648689.411 4291301.098 48.84
   LOCATION L0004751
                         VOLUME
                                  648704.564 4291282.486 48.87
                                  648719.717 4291263.875 48.91
   LOCATION L0004752
                         VOLUME
   LOCATION L0004753
                         VOLUME
                                  648734.870 4291245.263 48.94
                                  648750.022 4291226.652 48.98
   LOCATION L0004754
                         VOLUME
   LOCATION L0004755
                         VOLUME
                                   648765.175 4291208.040 49.01
   LOCATION L0004756
                         VOLUME
                                   648780.328 4291189.428 49.05
   LOCATION L0004757
                         VOLUME
                                   648795.481 4291170.817 49.08
   LOCATION L0004758
                                  648810.634 4291152.205 49.12
                         VOLUME
   LOCATION L0004759
                                  648825.787 4291133.593 49.15
                         VOLUME
   LOCATION L0004760
                         VOLUME
                                   648840.939 4291114.982 49.19
   LOCATION L0004761
                         VOLUME
                                   648856.092 4291096.370 49.22
   LOCATION L0004762
                         VOLUME
                                   648871.245 4291077.759 49.26
   LOCATION L0004763
                         VOLUME
                                   648886.398 4291059.147 49.29
   LOCATION L0004764
                                   648901.551 4291040.535 49.33
                         VOLUME
                                   648916.703 4291021.924 49.36
   LOCATION L0004765
                         VOLUME
   LOCATION L0004766
                         VOLUME
                                   648931.856 4291003.312 49.40
   LOCATION L0004767
                                   648947.009 4290984.701 49.43
                         VOLUME
   LOCATION L0004768
                         VOLUME
                                   648962.162 4290966.089 49.47
   LOCATION L0004769
                                   648977.315 4290947.477 49.50
                         VOLUME
   LOCATION L0004770
                         VOLUME
                                   648992.468 4290928.866 49.54
                                   649007.620 4290910.254 49.57
   LOCATION L0004771
                         VOLUME
   LOCATION L0004772
                                  649022.773 4290891.643 49.61
                         VOLUME
   LOCATION L0004773
                                   649037.926 4290873.031 49.64
                         VOLUME
   LOCATION L0004774
                                   649053.079 4290854.419 49.68
                         VOLUME
   LOCATION L0004775
                         VOLUME
                                   649068.232 4290835.808 49.71
   LOCATION L0004776
                                   649084.319 4290818.208 49.74
                         VOLUME
   LOCATION L0004777
                         VOLUME
                                   649104.076 4290804.582 49.73
   LOCATION L0004778
                         VOLUME
                                   649123.833 4290790.956 49.72
   LOCATION L0004779
                         VOLUME
                                   649143.590 4290777.331 49.71
   LOCATION L0004780
                         VOLUME
                                   649163.347 4290763.705 49.70
   LOCATION L0004781
                                  649183.720 4290751.121 49.72
                         VOLUME
   LOCATION L0004782
                         VOLUME
                                   649205.186 4290740.388 49.79
                                   649226.652 4290729.655 49.86
   LOCATION L0004783
                         VOLUME
   LOCATION L0004784
                         VOLUME
                                   649249.479 4290723.278 49.83
```

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LOCATION L0004785
                      VOLUME
                               649273.238 4290719.884 49.72
LOCATION L0004786
                               649296.715 4290722.367 49.72
                      VOLUME
LOCATION L0004787
                      VOLUME
                               649320.039 4290728.022 49.77
LOCATION L0004788
                      VOLUME
                               649342.143 4290736.326 49.83
LOCATION L0004789
                               649361.599 4290750.378 49.89
                      VOLUME
LOCATION L0004790
                      VOLUME
                               649381.055 4290764.429 49.95
                               649400.374 4290778.665 50.03
LOCATION L0004791
                      VOLUME
LOCATION L0004792
                      VOLUME
                               649419.306 4290793.416 50.15
LOCATION L0004793
                               649438.238 4290808.166 50.26
                      VOLUME
LOCATION L0004794
                               649457.170 4290822.917 50.38
                      VOLUME
LOCATION L0004795
                      VOLUME
                               649476.101 4290837.668 50.50
                               649495.033 4290852.418 50.61
LOCATION L0004796
                      VOLUME
LOCATION L0004797
                      VOLUME
                               649513.965 4290867.169 50.73
                               649532.897 4290881.920 50.84
LOCATION L0004798
                      VOLUME
LOCATION L0004799
                      VOLUME
                               649551.829 4290896.670 50.96
LOCATION L0004800
                               649570.761 4290911.421 51.08
                      VOLUME
LOCATION L0004801
                      VOLUME
                               649589.693 4290926.172 51.19
LOCATION L0004802
                      VOLUME
                               649608.625 4290940.922 51.31
LOCATION L0004803
                      VOLUME
                               649627.557 4290955.673 51.42
                      VOLUME
LOCATION L0004804
                               649646.489 4290970.424 51.54
                               649665.418 4290985.178 51.66
LOCATION L0004805
                      VOLUME
LOCATION L0004806
                      VOLUME
                               649684.300 4290999.992 51.78
                               649703.183 4291014.806 51.90
LOCATION L0004807
                      VOLUME
LOCATION L0004808
                               649722.065 4291029.620 52.02
                      VOLUME
LOCATION L0004809
                      VOLUME
                               649740.948 4291044.434 52.15
LOCATION L0004810
                      VOLUME
                               649759.830 4291059.248 52.27
LOCATION L0004811
                      VOLUME
                               649778.713 4291074.061 52.39
LOCATION L0004812
                      VOLUME
                               649797.595 4291088.875 52.51
LOCATION L0004813
                      VOLUME
                               649816.478 4291103.689 52.63
                               649835.360 4291118.503 52.76
LOCATION L0004814
                      VOLUME
LOCATION L0004815
                      VOLUME
                               649854.243 4291133.317 52.88
LOCATION L0004816
                      VOLUME
                               649873.125 4291148.131 53.00
LOCATION L0004817
                      VOLUME
                               649892.008 4291162.945 53.12
                      VOLUME
LOCATION L0004818
                               649910.890 4291177.759 53.24
LOCATION L0004819
                      VOLUME
                               649929.773 4291192.573 53.37
                               649948.655 4291207.386 53.49
LOCATION L0004820
                      VOLUME
LOCATION L0004821
                      VOLUME
                               649968.126 4291221.290 53.58
LOCATION L0004822
                      VOLUME
                               649989.386 4291232.426 53.60
LOCATION L0004823
                      VOLUME
                               650010.646 4291243.562 53.62
LOCATION L0004824
                      VOLUME
                               650031.906 4291254.699 53.63
LOCATION L0004825
                      VOLUME
                               650053.166 4291265.835 53.65
LOCATION L0004826
                      VOLUME
                               650074.426 4291276.971 53.67
LOCATION L0004827
                               650095.686 4291288.107 53.69
                      VOLUME
LOCATION L0004828
                               650117.945 4291296.952 53.69
                      VOLUME
LOCATION L0004829
                               650140.573 4291304.949 53.70
                      VOLUME
LOCATION L0004830
                      VOLUME
                               650163.202 4291312.945 53.71
LOCATION L0004831
                      VOLUME
                               650185.831 4291320.942 53.71
                               650208.459 4291328.939 53.72
LOCATION L0004832
                      VOLUME
                      VOLUME
LOCATION L0004833
                               650231.088 4291336.935 53.73
LOCATION L0004834
                      VOLUME
                               650253.716 4291344.932 53.73
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LOCATION L0004835
                                650276.345 4291352.928 53.74
                       VOLUME
                                650298.974 4291360.925 53.74
  LOCATION L0004836
                       VOLUME
  LOCATION L0004837
                       VOLUME
                                650321.635 4291368.798 53.75
  LOCATION L0004838
                       VOLUME
                                650345.234 4291373.168 53.76
                                650368.833 4291377.539 53.78
  LOCATION L0004839
                       VOLUME
  LOCATION L0004840
                       VOLUME
                                650392.432 4291381.909 53.79
                                650416.030 4291386.279 53.80
  LOCATION L0004841
                      VOLUME
  LOCATION L0004842
                       VOLUME
                                650439.629 4291390.649 53.82
  LOCATION L0004843
                       VOLUME
                                650463.228 4291395.019 53.83
  LOCATION L0004844 VOLUME
                                650486.827 4291399.389 53.84
** END OF LINE VOLUME SOURCE ID = SLINE51
  LOCATION VOL1
                       VOLUME
                                650665.251 4291406.930
                                                             53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION EQUIPMENT TRUCKS
  LOCATION VOL2 VOLUME 650563.968 4291398.425
                                                               53.160
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST WORK AREA #2
  LOCATION VOL3 VOLUME 650456.370 4291399.520
                                                               53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION EQUIPMENT EXHAUST
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE43
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 8
** 650396.283, 4291415.230, 53.09, 3.40, 40.47
** 650339.492, 4291407.868, 54.51, 3.40, 40.47
** 650291.115, 4291397.351, 54.58, 3.40, 40.47
** 650226.962, 4291374.214, 54.26, 3.40, 40.47
** 650171.223, 4291357.387, 54.56, 3.40, 40.47
** 650088.140, 4291323.733, 54.83, 3.40, 40.47
** 649981.921, 4291266.943, 52.81, 3.40, 40.47
** 649931.440, 4291236.444, 52.99, 3.40, 40.47
** _____
  LOCATION L0004845
                     VOLUME 650353.144 4291409.638 54.17
  LOCATION L0004846 VOLUME 650268.796 4291389.301 54.47 LOCATION L0004847 VOLUME 650186.248 4291361.923 54.48 LOCATION L0004848 VOLUME 650105.134 4291330.617 54.77
  LOCATION L0004849 VOLUME 650027.586 4291291.358 53.68 LOCATION L0004850 VOLUME 649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE43
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE44
** DESCRSRC CONSTRUCTION EQUIPMENT WORK AREA #3
** PREFIX
```

```
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 3
** 649898.118, 4291201.738, 52.60, 3.40, 26.51
** 649581.371, 4290941.907, 50.98, 3.40, 26.51
** 649582.608, 4290945.618, 50.95, 3.40, 26.51
** ______
  LOCATION L0004851
                       VOLUME 649876.084 4291183.663 52.49
  LOCATION L0004852
                     VOLUME 649832.014 4291147.512 52.26
  LOCATION L0004853 VOLUME 649787.945 4291111.362 52.04 LOCATION L0004854 VOLUME 649743.875 4291075.211 51.81 LOCATION L0004855 VOLUME 649699.806 4291039.060 51.59
  LOCATION L0004856 VOLUME 649655.736 4291002.909 51.36 LOCATION L0004857 VOLUME 649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE44
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE45
** DESCRSRC CONSTRUCTION EQUIPMENT EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649582.567, 4290938.264, 50.99, 3.40, 36.74
** 649458.557, 4290838.151, 50.39, 3.40, 36.74
** ______
  LOCATION L0004858
                       VOLUME 649551.832 4290913.452 50.84
  LOCATION L0004859 VOLUME 649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE45
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE46
** DESCRSRC CONSTRUCITON EQUIPMENT EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649445.530, 4290815.617, 50.23, 3.40, 23.26
```

```
** 649303.390, 4290698.508, 49.82, 3.40, 23.26
** _____
  LOCATION L0004860 VOLUME 649426.235 4290799.720 50.17 LOCATION L0004861 VOLUME 649387.646 4290767.926 50.06 LOCATION L0004862 VOLUME 649349.056 4290736.133 49.95 LOCATION L0004863 VOLUME 649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE46
** _____
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE47
** DESCRSRC CONSTRUCTION EQUIPMENT TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0000375
** ELEVATED
** VERTICAL DIMENSION = 6.80
** SZINIT = 1.58
** NODES = 2
** 649138.007, 4290774.495, 49.32, 3.40, 11.63
** 649266.737, 4290695.826, 49.56, 3.40, 11.63
** _____
  LOCATION L0004864 VOLUME 649148.673 4290767.977 49.34
  LOCATION L0004865 VOLUME 649170.005 4290754.941 49.38 LOCATION L0004866 VOLUME 649191.337 4290741.904 49.42
  LOCATION L0004867
                      VOLUME 649212.669 4290728.868 49.46
  LOCATION L0004868 VOLUME 649234.001 4290715.832 49.50 LOCATION L0004869 VOLUME 649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE47
   LOCATION VOL12 VOLUME 650665.251 4291406.930 53.240
** DESCRSRC WORK AREA 1 -CONSTRUCTION PICKUP TRUCKS
   LOCATION VOL22 VOLUME 650563.968 4291398.425
                                                                53.160
** DESCRSRC CONSTRUCTION EQUIPMENT PICKUP EXHAUST WORK AREA #2
   LOCATION VOL32 VOLUME 650456.370 4291399.520
                                                                53.930
** DESCRSRC WORK AREA #3 CONSTRUCTION PICKUP TRUCK EXHAUST
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE432
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 87.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 8
** 650396.283, 4291415.230, 53.09, 1.30, 40.47
** 650339.492, 4291407.868, 54.51, 1.30, 40.47
** 650291.115, 4291397.351, 54.58, 1.30, 40.47
```

```
** 650226.962, 4291374.214, 54.26, 1.30, 40.47
** 650171.223, 4291357.387, 54.56, 1.30, 40.47
** 650088.140, 4291323.733, 54.83, 1.30, 40.47
** 649981.921, 4291266.943, 52.81, 1.30, 40.47
** 649931.440, 4291236.444, 52.99, 1.30, 40.47
** ______
   LOCATION L0004870
                       VOLUME 650353.144 4291409.638 54.17
  LOCATION L0004871
                       VOLUME 650268.796 4291389.301 54.47
  LOCATION L0004872
                      VOLUME
                                 650186.248 4291361.923 54.48
  LOCATION L0004873 VOLUME 650105.134 4291330.617 54.77 LOCATION L0004874 VOLUME 650027.586 4291291.358 53.68 LOCATION L0004875 VOLUME 649951.778 4291248.731 52.92
** END OF LINE VOLUME SOURCE ID = SLINE432
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE444
** DESCRSRC CONSTRUCTION PICKUP TRUCK WORK AREA #3
** PREFIX
** LENGTH OF SIDE = 57.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 3
** 649898.118, 4291201.738, 52.60, 1.30, 26.51
** 649581.371, 4290941.907, 50.98, 1.30, 26.51
** 649582.608, 4290945.618, 50.95, 1.30, 26.51
** ______
   LOCATION L0004876
                        VOLUME 649876.084 4291183.663 52.49
  LOCATION L0004877
                       VOLUME 649832.014 4291147.512 52.26
  LOCATION L0004878
                       VOLUME 649787.945 4291111.362 52.04
  LOCATION L0004879 VOLUME 649743.875 4291075.211 51.81 LOCATION L0004880 VOLUME 649699.806 4291039.060 51.59
  LOCATION L0004881
                       VOLUME 649655.736 4291002.909 51.36
   LOCATION L0004882
                      VOLUME 649611.667 4290966.758 51.13
** END OF LINE VOLUME SOURCE ID = SLINE444
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE452
** DESCRSRC CONSTRUCTION PICKUP TRUCK EXHAUST TO YOSEMITE AVE
** PREFIX
** LENGTH OF SIDE = 79.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649582.567, 4290938.264, 50.99, 1.30, 36.74
```

```
** 649458.557, 4290838.151, 50.39, 1.30, 36.74
** ______
                    VOLUME 649551.832 4290913.452 50.84
  LOCATION L0004883
  LOCATION L0004884 VOLUME 649490.363 4290863.828 50.54
** END OF LINE VOLUME SOURCE ID = SLINE452
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE462
** DESCRSRC CONSTRUCITON PICKUP TUCK EXHASUT TO Y
** PREFIX
** LENGTH OF SIDE = 50.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649445.530, 4290815.617, 50.23, 1.30, 23.26
** 649303.390, 4290698.508, 49.82, 1.30, 23.26
** ______
  LOCATION L0004885 VOLUME 649426.235 4290799.720 50.17
  LOCATION L0004886
                    VOLUME 649387.646 4290767.926 50.06
  LOCATION L0004887 VOLUME 649349.056 4290736.133 49.95 LOCATION L0004888 VOLUME 649310.467 4290704.339 49.84
** END OF LINE VOLUME SOURCE ID = SLINE462
** ______
** LINE SOURCE REPRESENTED BY ADJACENT VOLUME SOURCES
** LINE VOLUME SOURCE ID = SLINE472
** DESCRSRC CONSTRUCTION PICKUP TRUCK TO SOUTH END OF WORK AREA
** PREFIX
** LENGTH OF SIDE = 25.00
** CONFIGURATION = ADJACENT
** EMISSION RATE = 0.0
** ELEVATED
** VERTICAL DIMENSION = 2.60
** SZINIT = 0.60
** NODES = 2
** 649138.007, 4290774.495, 49.32, 1.30, 11.63
** 649266.737, 4290695.826, 49.56, 1.30, 11.63
** _____
  LOCATION L0004889
                     VOLUME 649148.673 4290767.977 49.34
  LOCATION L0004890
                   VOLUME 649170.005 4290754.941 49.38
  LOCATION L0004891 VOLUME 649191.337 4290741.904 49.42
                   VOLUME 649212.669 4290728.868 49.46
  LOCATION L0004892
  LOCATION L0004893
                    VOLUME 649234.001 4290715.832 49.50
  LOCATION L0004894 VOLUME 649255.333 4290702.796 49.54
** END OF LINE VOLUME SOURCE ID = SLINE472
** SOURCE PARAMETERS **
** LINE VOLUME SOURCE ID = SLINE21
  SRCPARAM L0000001 0.00000091 3.40 12.39
                                                    1.58
```

	SRCPARAM	L0000002	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000003	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000004	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000005	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000006	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000007	0.00000091	3.40	12.39	1.58
	SRCPARAM	L0000008	0.00000091	3.40	12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM		0.00000091		12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
	SRCPARAM			3.40	12.39	1.58
			0.00000091		12.39	1.58
		L0000030		3.40	12.39	1.58
*						
*	LINE VOLU	ME SOURCE ID	= SLINE31			
	SRCPARAM	L0004728	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004729	0.000001517	3.40	12.39	1.58
			0.000001517		12.39	1.58
	SRCPARAM	L0004731	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004732	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004733	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004734	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004735	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004736	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004737	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004738	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004739	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004740	0.000001517	3.40	12.39	1.58
	SRCPARAM		0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004742	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004743	0.000001517	3.40	12.39	1.58
	SRCPARAM	L0004744	0.000001517	3.40	12.39	1.58
	SRCPARAM		0.000001517	3.40	12.39	1.58
* *						

	SRCPARAM VOL41	0.0000273	3.400	3.951	3.160	
**	LINE VOLUME SOURCE I					
	SRCPARAM L0004746	0.000000003		5.65	11.16	2.63
	SRCPARAM L0004747	0.000000003		5.65	11.16	2.63
	SRCPARAM L0004748	0.000000003		5.65	11.16	2.63
	SRCPARAM L0004749	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004750	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004751	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004752	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004753	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004754	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004755	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004756	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004757	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004758	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004759	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004760	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004761	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004762	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004763	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004764	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004765	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004766	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004767	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004768	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004769	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004770	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004771	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004772	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004773	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004774	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004775	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004776	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004777	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004778	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004779	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004780	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004781	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004782	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004783	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004784	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004785	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004786	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004787	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004788	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004789	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004790	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004791	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004792	0.000000003	313	5.65	11.16	2.63
	SRCPARAM L0004793	0.000000003	313	5.65	11.16	2.63

SRCPARAM	L0004794	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004795	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004796	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004797	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004798	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004799	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004800	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004801	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004802	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004803	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004804	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004805	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004806	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004807	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004808	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004809	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004810	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004811	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004812	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004813	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004814	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004815	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004816	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004817	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004818	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004819	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004820	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004821	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004822	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004823	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004824	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004825	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004826	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004827	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004828	0.000000003313	5.65	11.16	2.63
	L0004829	0.000000003313	5.65	11.16	2.63
	L0004830	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004831	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004832	0.000000003313	5.65	11.16	2.63
	L0004833	0.000000003313	5.65	11.16	2.63
SRCPARAM	L0004834	0.000000003313	5.65	11.16	2.63
	L0004835	0.000000003313	5.65	11.16	2.63
	L0004836	0.000000003313	5.65	11.16	2.63
	L0004837	0.000000003313	5.65	11.16	2.63
	L0004838	0.000000003313	5.65	11.16	2.63
	L0004839	0.000000003313	5.65	11.16	2.63
	L0004840	0.000000003313	5.65	11.16	2.63
	L0004841	0.000000003313	5.65	11.16	2.63
	L0004842	0.000000003313	5.65	11.16	2.63
	L0004843	0.000000003313	5.65	11.16	2.63
			- • • •		

**	SRCPARAM L0004844		0.00000000331	3 5.	65 11.1	L6	2.63
1- AP	SRCPARAM VOL1 SRCPARAM VOL2		0.0000375	3.400	20.233	3.160	
**	SRCPARAM VOL3 LINE VOLUME SOURCE I	רח	_ CLTNE42				
	SRCPARAM LOOGASAS		0.00000625	3.40	40.47	1.58	
	SRCPARAM L0004846 SRCPARAM L0004847						
	SRCPARAM L0004848						
	SRCPARAM L0004849		0.00000625	3.40	40.47	1.58	
	SRCPARAM L0004850			3.40	40.47	1.58	
	LINE VOLUME COURCE I						
ጥጥ	LINE VOLUME SOURCE I SRCPARAM L0004851			3 10	26 51	1 5	Q
	SRCPARAM L0004852						
	SRCPARAM L0004853						
	SRCPARAM L0004854		0.000005357	3.40	26.51	1.5	8
	SRCPARAM L0004855		0.000005357	3.40	26.51	1.5	8
	SRCPARAM L0004856 SRCPARAM L0004857		0.000005357	3.40	26.51	1.5	8
**	SRCPARAM L000485/		0.00000535/				8
	LINE VOLUME SOURCE 1						
	SRCPARAM L0004858			3.40	36.74	1.58	
	SRCPARAM L0004859		0.00001875	3.40	36.74	1.58	
	LINE VOLUME COURCE T						
ጥጥ	LINE VOLUME SOURCE I SRCPARAM L0004860			3 10	23 26	1 5	Q
	SRCPARAM L0004861		0.000009375	3.40	23.26	1.5	8
	SRCPARAM L0004862		0.000009375	3.40	23.26	1.5	8
	SRCPARAM L0004863						
**	LINE VOLUME SOURCE I SRCPARAM L0004864				11 62	1 50	
	SRCPARAM L0004865		0.00000625		11.63	1.58	
	SRCPARAM L0004866		0.00000025	3.40	11.63	1.58	
	SRCPARAM L0004867						
	SRCPARAM L0004868						
	SRCPARAM L0004869			3.40	11.63	1.58	
**	CDCDADAM VOL12			1 200	11 620	1 210	
	SRCPARAM VOL12 SRCPARAM VOL22		0.0 0.0				
	SRCPARAM VOL32		0.0	1.300	15.116		
**	LINE VOLUME SOURCE	ΙD			- · - ·		
	SRCPARAM L0004870		0.0	1.30	40.47	0.60	
	SRCPARAM L0004871			1.30			
	SRCPARAM L0004872			1.30			
	SRCPARAM L0004873 SRCPARAM L0004874		0.0	1.30	40.47 40.47		
	SRCPARAM L0004874 SRCPARAM L0004875		0.0 0.0	1.30 1.30		0.60 0.60	
	5.C. ALAI 100040/3		0.0	1.50	-U.T/	3.00	

```
** LINE VOLUME SOURCE ID = SLINE444

      0.0
      1.30
      26.51
      0.60

      0.0
      1.30
      26.51
      0.60

      0.0
      1.30
      26.51
      0.60

      0.0
      1.30
      26.51
      0.60

      0.0
      1.30
      26.51
      0.60

   SRCPARAM L0004876
                              0.0
   SRCPARAM L0004877
   SRCPARAM L0004878
   SRCPARAM L0004879
   SRCPARAM L0004880
                                       1.30
                                                 26.51
                                                            0.60
   SRCPARAM L0004881
                               0.0
                               0.0 1.30 26.51
   SRCPARAM L0004882
                                                              0.60
** ______
** LINE VOLUME SOURCE ID = SLINE452
                                         1.30
                                                 36.74
   SRCPARAM L0004883
                       0.0
                                                              0.60
   SRCPARAM L0004884
                                0.0
                                         1.30
                                                  36.74
                                                              0.60
** ______
** LINE VOLUME SOURCE ID = SLINE462
   SRCPARAM L0004885
                               0.0
                                        1.30
                                                 23.26
                                                              0.60
                                       1.30
1.30
   SRCPARAM L0004886
                               0.0
                                                 23.26
                                                            0.60
   SRCPARAM L0004887
                               0.0
                                                 23.26
                                                              0.60
                              0.0 1.30 23.26
   SRCPARAM L0004888
                                                              0.60
** ______
** LINE VOLUME SOURCE ID = SLINE472

      0.0
      1.30
      11.63
      0.60

      0.0
      1.30
      11.63
      0.60

      0.0
      1.30
      11.63
      0.60

      0.0
      1.30
      11.63
      0.60

   SRCPARAM L0004889
   SRCPARAM L0004890
   SRCPARAM L0004891
   SRCPARAM L0004892
   SRCPARAM L0004893
                              0.0
                                       1.30
                                                 11.63
                                                            0.60
                                        1.30 11.63
   SRCPARAM L0004894
                                0.0
                                                              0.60
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
************
** AERMOD RECEPTOR PATHWAY
************
**
**
RE STARTING
   INCLUDED "AERMOD LAYOVER CONSTRUCT.ROU"
RE FINISHED
***********
** AERMOD METEOROLOGY PATHWAY
************
**
**
ME STARTING
   SURFFILE "..\..\MET DATA\14-18.SFC"
   PROFFILE "..\..\MET DATA\14-18.PFL"
   SURFDATA 93225 2014
```

```
UAIRDATA 23230 2014 OAKLAND/WSO_AP
PROFBASE 8.0 METERS
```

ME FINISHED

**

** AERMOD OUTPUT PATHWAY

**

**

OU STARTING

** AUTO-GENERATED PLOTFILES

PLOTFILE PERIOD ALL "AERMOD LAYOVER CONSTRUCT UNMITIGATED\PE00GALL.PLT" 31 FILEFORM EXP

SUMMFILE "AERMOD LAYOVER CONSTRUCT.SUM"

OU FINISHED

*** Message Summary For AERMOD Model Setup ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 0 Informational Message(s)

****** FATAL ERROR MESSAGES ******

*** NONE ***

	*****	WARNING	MESSAGES	***	****					
S0	W320	690	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	QS W320	691	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	692	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	694	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	695	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	696	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	697	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	698	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	699	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	QS W320	702	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter

	QS									
S0	W320 QS	703	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	W320 QS	704	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	705	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	706	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	W320 QS	707	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	708	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	W320 QS	711	VPARM:	Input	Parameter	May	Ве	Out-of-Range	for	Parameter
S0	W320 QS	712	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	715	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	716	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	717	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	718	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	721	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	722	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	723	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	724	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	725	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	726	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
ME	W186 0.50	752	MEOPEN:	THRESI	H_1MIN 1-m	in A	SOS	wind speed t	hresl	nold used
ME	W187	752	MEOPEN:	ADJ_U	* Option f	or S	tab	le Low Winds (used	in AERMET

^{↑ ***} AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - UNMITIGATED *** 07/10/23 *** AERMET - VERSION 19191 *** ***

^{*** 21:24:19}

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

*** MODEL SETUP OPTIONS SUMMARY

** Model Options Selected:

- * Model Uses Regulatory DEFAULT Options
- * Model Is Setup For Calculation of Average CONCentration Values.
- * NO GAS DEPOSITION Data Provided.
- * NO PARTICLE DEPOSITION Data Provided.
- * Model Uses NO DRY DEPLETION. DDPLETE = F
- * Model Uses NO WET DEPLETION. WETDPLT = F
- * Stack-tip Downwash.
- * Model Accounts for ELEVated Terrain Effects.
- * Use Calms Processing Routine.
- * Use Missing Data Processing Routine.
- * No Exponential Decay.
- * Model Uses URBAN Dispersion Algorithm for the SBL for 204 Source(s), for Total of 1 Urban Area(s):

Urban Population = 2500000.0; Urban Roughness Length = 1.000 m

- * Urban Roughness Length of 1.0 Meter Used.
- * ADJ U* Use ADJ U* option for SBL in AERMET
- * CCVR_Sub Meteorological data includes CCVR substitutions
- * TEMP Sub Meteorological data includes TEMP substitutions
- * Model Accepts FLAGPOLE Receptor . Heights.
- * The User Specified a Pollutant Type of: DPM

**This Run Includes: 204 Source(s); 1 Source Group(s); and 329 Receptor(s)

with:

0 POINT(s), including

0 POINTCAP(s) and 0 POINTHOR(s)

and: 204 VOLUME source(s) and:

0 AREA type source(s)

and: 0 LINE source(s)

and: 0 RLINE/RLINEXT source(s)

0 OPENPIT source(s) and:

and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

0 SWPOINT source(s) and:

^{**}Model Calculates PERIOD Averages Only

^{**}Model Set To Continue RUNning After the Setup Testing.

^{**}The AERMET Input Meteorological Data Version Date: 19191

```
Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)
         NOTE: Option for EXPonential format used in formatted output result files
(FILEFORM Keyword)
**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
                                                               m for Missing
Hours
                                                               b for Both Calm
and Missing Hours
**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00; Decay
                    ; Rot. Angle =
Coef. =
          0.000
                 Emission Units = GRAMS/SEC
                                                                          ;
Emission Rate Unit Factor = 0.10000E+07
                 Output Units
                                = MICROGRAMS/M**3
**Approximate Storage Requirements of Model = 3.6 MB of RAM.
 **Input Runstream File:
                                 aermod.inp
 **Output Print File:
                                 aermod.out
**Detailed Error/Message File: AERMOD LAYOVER CONSTRUCT.ERR
**File for Summary of Results:
                                 AERMOD LAYOVER CONSTRUCT.SUM
↑ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                          ***
UNMITIGATED
                                     07/10/23
                      19191 ***
*** AERMET - VERSION
                       ***
                                  21:24:19
                                  PAGE
                                         2
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                                                 *** VOLUME SOURCE DATA ***
              NUMBER EMISSION RATE
                                                     BASE
                                                             RELEASE
                                                                        INIT.
INIT. URBAN EMISSION RATE
                                     Χ
                                              Υ
                                                     ELEV.
                                                                         SY
  SOURCE
               PART. (GRAMS/SEC)
                                                             HEIGHT
SZ
      SOURCE SCALAR VARY
```

(METERS) (METERS) (METERS) (METERS)

**Output Options Selected:

ID

CATS.

L0000001	0	0.91000E-06	649993.6 4291183.8	52.6	3.40	12.39
1.58 YES L0000002	0	0.91000E-06	650017.0 4291196.4	52.7	3.40	12.39
1.58 YES	Ū	0.910001 00				
L0000003 1.58 YES	0	0.91000E-06	650040.5 4291209.1	52.8	3.40	12.39
L0000004 1.58 YES	0	0.91000E-06	650063.9 4291221.7	52.9	3.40	12.39
L0000005	0	0.91000E-06	650087.4 4291234.4	53.0	3.40	12.39
1.58 YES L0000006	0	0.91000E-06	650110.8 4291247.0	53.1	3.40	12.39
1.58 YES L0000007	0	0.91000E-06	650134.9 4291258.4	53.2	3.40	12.39
1.58 YES L0000008	0	0.91000E-06	650159.5 4291268.4	53.3	3.40	12.39
1.58 YES L0000009	0	0.91000E-06	650184.2 4291278.5	53.3	3.40	12.39
1.58 YES L0000010	0	0.010005.00	CE0200 2 4201207 C	F2 4	2 40	12.39
1.58 YES	0	0.91000E-06	650209.3 4291287.6	53.4	3.40	12.39
L0000011 1.58 YES	0	0.91000E-06	650234.8 4291295.2	53.5	3.40	12.39
L0000012 1.58 YES	0	0.91000E-06	650260.3 4291302.9	53.6	3.40	12.39
L0000013 1.58 YES	0	0.91000E-06	650285.8 4291310.5	53.6	3.40	12.39
L0000014	0	0.91000E-06	650311.7 4291316.6	53.2	3.40	12.39
1.58 YES L0000015	0	0.91000E-06	650337.7 4291322.7	52.8	3.40	12.39
1.58 YES L0000016	0	0.91000E-06	650363.6 4291328.8	52.4	3.40	12.39
1.58 YES L0000017	0	0.91000E-06	650389.6 4291334.6	52.0	3.40	12.39
1.58 YES L0000018	0	0.91000E-06	650416.1 4291337.6	51.4	3.40	12.39
1.58 YES L0000019	0		650442.5 4291340.5	50.7	3.40	12.39
1.58 YES						
L0000020 1.58 YES	0	0.91000E-06	650469.0 4291343.5	50.0	3.40	12.39
L0000021 1.58 YES	0	0.91000E-06	650493.3 4291354.2	49.9	3.40	12.39
L0000022 1.58 YES	0	0.91000E-06	650519.6 4291356.5	50.2	3.40	12.39
L0000023	0	0.91000E-06	650546.2 4291357.4	50.5	3.40	12.39
1.58 YES						

L0000024	0	0.91000E-06	650572.8 4291358.3	50.8	3.40	12.39
1.58 YES L0000025	0	0.91000E-06	650599.4 4291359.2	51.1	3.40	12.39
1.58 YES	О	0.910006-00	030333.4 4231333.2	21.1	3.40	12.39
L0000026	0	0.91000E-06	650626.1 4291360.0	51.4	3.40	12.39
1.58 YES		017_000_ 00		5_7.	5.1.0	
L0000027	0	0.91000E-06	650652.7 4291360.9	51.7	3.40	12.39
1.58 YES						
L0000028	0	0.91000E-06	650679.3 4291361.8	52.0	3.40	12.39
1.58 YES						
L0000029	0	0.91000E-06	650705.9 4291362.7	52.3	3.40	12.39
1.58 YES L0000030	0	0.91000E-06	650732.6 4291363.6	52.6	2 40	12.39
1.58 YES	О	0.91000E-00	050/32.0 4291303.0	52.0	3.40	12.39
L0004728	0	0.15170E-05	650755.2 4291362.6	52.9	3.40	12.39
1.58 YES	•	0.000		5_11	5	
L0004729	0	0.15170E-05	650779.6 4291354.2	53.7	3.40	12.39
1.58 YES						
L0004730	0	0.15170E-05	650806.2 4291354.7	54.9	3.40	12.39
1.58 YES	_	0 454505 05			2 40	10.00
L0004731	0	0.15170E-05	650832.8 4291355.7	56.1	3.40	12.39
1.58 YES L0004732	0	0.15170E-05	650859.4 4291357.0	57.4	3.40	12.39
1.58 YES	Ø	0.131/06-03	030033.4 4231337.0	37.4	3.40	12.33
L0004733	0	0.15170E-05	650886.0 4291359.2	58.7	3.40	12.39
1.58 YES						
L0004734	0	0.15170E-05	650912.6 4291360.7	59.9	3.40	12.39
1.58 YES						
L0004735	0	0.15170E-05	650939.2 4291360.4	60.9	3.40	12.39
1.58 YES	•	0 454705 05	650065 0 4004060 4	64.0	2 40	42.20
L0004736 1.58 YES	0	0.15170E-05	650965.8 4291360.1	61.8	3.40	12.39
1.58 YES L0004737	0	0 15170F_05	650992.4 4291357.9	58.9	3.40	12.39
1.58 YES	O	0.131701 03	0000002.4 4201007.0	30.5	3.40	12.55
	'ERSI	ON 22112 ***	*** 3RD LEG LAYOVE	R CNONSTRU	JCTION EM	ISSIONS -
UNMITIGATED		***	07/10/23			
*** AERMET - VE	RSION		***			
		***	21:24:19			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER	EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSIC	N RATE					
SO	JRCE	PART.	(GRAMS/SEC)	X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR	VARY					
	ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

L0004738	0	0.15170E-05	651018.9 4291355.2	55.9	3.40	12.39
1.58 YES L0004739	0	0.15170E-05	651045.3 4291351.6	56.0	3.40	12.39
1.58 YES L0004740	0	0.15170E-05	651071.6 4291347.5	59.4	3.40	12.39
1.58 YES L0004741	0	0.15170E-05	651097.7 4291342.7	62.4	3.40	12.39
1.58 YES L0004742	0	0.15170E-05	651123.1 4291334.4	61.6	3.40	12.39
1.58 YES L0004743	0	0.15170E-05	651148.3 4291325.9	60.7	3.40	12.39
1.58 YES L0004744	0	0.15170E-05	651173.2 4291316.5	59.5	3.40	12.39
1.58 YES L0004745	0	0.15170E-05	651197.3 4291305.1	58.0	3.40	12.39
1.58 YES VOL41	0	0.27300E-04	649972.1 4291194.8	53.1	3.40	3.95
3.16 YES L0004746	0	0.33130E-08	648628.8 4291375.5	48.7	5.65	11.16
2.63 YES L0004747	0	0.33130E-08	648644.0 4291356.9	48.7	5.65	11.16
2.63 YES L0004748	0	0.33130E-08	648659.1 4291338.3	48.8	5.65	11.16
2.63 YES L0004749	0	0.33130E-08	648674.3 4291319.7	48.8	5.65	11.16
2.63 YES L0004750	0	0.33130E-08	648689.4 4291301.1	48.8	5.65	11.16
2.63 YES L0004751	0	0.33130E-08	648704.6 4291282.5	48.9	5.65	11.16
2.63 YES L0004752	0	0.33130E-08	648719.7 4291263.9	48.9	5.65	11.16
2.63 YES L0004753	0	0.33130E-08	648734.9 4291245.3	48.9	5.65	11.16
2.63 YES L0004754	0	0.33130E-08	648750.0 4291226.7	49.0	5.65	11.16
2.63 YES L0004755	0	0.33130E-08	648765.2 4291208.0	49.0	5.65	11.16
2.63 YES L0004756	0	0.33130E-08	648780.3 4291189.4	49.0	5.65	11.16
2.63 YES L0004757	0	0.33130E-08	648795.5 4291170.8	49.1	5.65	11.16
2.63 YES L0004758	0	0.33130E-08	648810.6 4291152.2	49.1	5.65	11.16
2.63 YES L0004759	0		648825.8 4291133.6	49.1		11.16
2.63 YES	-				- · • •	,

L0004760	0	0.33130E-08	648840.9 4291115.0	49.2	5.65	11.16
2.63 YES						
L0004761	0	0.33130E-08	648856.1 4291096.4	49.2	5.65	11.16
2.63 YES						
L0004762	0	0.33130E-08	648871.2 4291077.8	49.3	5.65	11.16
2.63 YES						
L0004763	0	0.33130E-08	648886.4 4291059.1	49.3	5.65	11.16
2.63 YES						
L0004764	0	0.33130E-08	648901.6 4291040.5	49.3	5.65	11.16
2.63 YES						
L0004765	0	0.33130E-08	648916.7 4291021.9	49.4	5.65	11.16
2.63 YES						
L0004766	0	0.33130E-08	648931.9 4291003.3	49.4	5.65	11.16
2.63 YES						
L0004767	0	0.33130E-08	648947.0 4290984.7	49.4	5.65	11.16
2.63 YES						
L0004768	0	0.33130E-08	648962.2 4290966.1	49.5	5.65	11.16
2.63 YES						
L0004769	0	0.33130E-08	648977.3 4290947.5	49.5	5.65	11.16
2.63 YES						
L0004770	0	0.33130E-08	648992.5 4290928.9	49.5	5.65	11.16
2.63 YES						
L0004771	0	0.33130E-08	649007.6 4290910.3	49.6	5.65	11.16
2.63 YES						
L0004772	0	0.33130E-08	649022.8 4290891.6	49.6	5.65	11.16
2.63 YES						
L0004773	0	0.33130E-08	649037.9 4290873.0	49.6	5.65	11.16
2.63 YES						
L0004774	0	0.33130E-08	649053.1 4290854.4	49.7	5.65	11.16
2.63 YES						
L0004775	0	0.33130E-08	649068.2 4290835.8	49.7	5.65	11.16
2.63 YES						
L0004776	0	0.33130E-08	649084.3 4290818.2	49.7	5.65	11.16
2.63 YES						
	- VERSIO		*** 3RD LEG LAYOVE	R CNONSTRU	ICTION EM	ISSIONS -
UNMITIGATED	\/EDC=0::	***	07/10/23			
*** AERMET -	VERSION		***			
		***	21:24:19			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

	NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT. URBAN	EMISSION RATE					
SOURCE	PART. (GRAMS/SEC)	Χ	Υ	ELEV.	HEIGHT	SY
SZ SOURCE	SCALAR VARY					
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

L0004777	0	0.33130E-08	649104.1 4290804.6	49.7	5.65	11.16
2.63 YES						
L0004778	0	0.33130E-08	649123.8 4290791.0	49.7	5.65	11.16
2.63 YES						
L0004779	0	0.33130E-08	649143.6 4290777.3	49.7	5.65	11.16
2.63 YES	_					
L0004780	0	0.33130E-08	649163.3 4290763.7	49.7	5.65	11.16
2.63 YES	0	Δ 221205 Δ0	640192 7 4208751 1	40.7	F 6F	11 16
L0004781 2.63 YES	0	0.33130E-08	649183.7 4290751.1	49.7	5.65	11.16
L0004782	0	0.33130E-08	649205.2 4290740.4	49.8	5.65	11.16
2.63 YES	O	0.331302 00	043203.2 4230740.4	45.0	3.03	11.10
L0004783	0	0.33130E-08	649226.7 4290729.7	49.9	5.65	11.16
2.63 YES						
L0004784	0	0.33130E-08	649249.5 4290723.3	49.8	5.65	11.16
2.63 YES						
L0004785	0	0.33130E-08	649273.2 4290719.9	49.7	5.65	11.16
2.63 YES						
L0004786	0	0.33130E-08	649296.7 4290722.4	49.7	5.65	11.16
2.63 YES	_	0 004005 00		40.0		
L0004787	0	0.33130E-08	649320.0 4290728.0	49.8	5.65	11.16
2.63 YES	0	0 22120F 00	640242 1 4208726 2	40.0	г сг	11 16
L0004788 2.63 YES	0	0.33130E-08	649342.1 4290736.3	49.8	5.65	11.16
L0004789	0	0.33130E-08	649361.6 4290750.4	49.9	5.65	11.16
2.63 YES	O	0.551501 00	049301:0 4230730:4	70.0	3.03	11.10
L0004790	0	0.33130E-08	649381.1 4290764.4	49.9	5.65	11.16
2.63 YES						
L0004791	0	0.33130E-08	649400.4 4290778.7	50.0	5.65	11.16
2.63 YES						
L0004792	0	0.33130E-08	649419.3 4290793.4	50.1	5.65	11.16
2.63 YES						
L0004793	0	0.33130E-08	649438.2 4290808.2	50.3	5.65	11.16
2.63 YES	•	0 224205 00	640457 2 4200022 0	F0 4		44.46
L0004794	0	0.33130E-08	649457.2 4290822.9	50.4	5.65	11.16
2.63 YES L0004795	0	0 22120E 00	649476.1 4290837.7	50.5	5.65	11.16
2.63 YES	Ø	0.33130E-00	0494/0.1 429085/./	50.5	5.65	11.10
L0004796	0	0.33130F-08	649495.0 4290852.4	50.6	5.65	11.16
2.63 YES	J	0.331301 00	015155.0 1250052.1	30.0	3.03	11.10
L0004797	0	0.33130E-08	649514.0 4290867.2	50.7	5.65	11.16
2.63 YES						
L0004798	0	0.33130E-08	649532.9 4290881.9	50.8	5.65	11.16
2.63 YES						
L0004799	0	0.33130E-08	649551.8 4290896.7	51.0	5.65	11.16
2.63 YES						

L0004800	0	0.33130E-08	649570.8 4290911.4	51.1	5.65	11.16
2.63 YES						
L0004801	0	0.33130E-08	649589.7 4290926.2	51.2	5.65	11.16
2.63 YES						
L0004802	0	0.33130E-08	649608.6 4290940.9	51.3	5.65	11.16
2.63 YES						
L0004803	0	0.33130E-08	649627.6 4290955.7	51.4	5.65	11.16
2.63 YES						
L0004804	0	0.33130E-08	649646.5 4290970.4	51.5	5.65	11.16
2.63 YES						
L0004805	0	0.33130E-08	649665.4 4290985.2	51.7	5.65	11.16
2.63 YES						
L0004806	0	0.33130E-08	649684.3 4291000.0	51.8	5.65	11.16
2.63 YES						
L0004807	0	0.33130E-08	649703.2 4291014.8	51.9	5.65	11.16
2.63 YES						
L0004808	0	0.33130E-08	649722.1 4291029.6	52.0	5.65	11.16
2.63 YES						
L0004809	0	0.33130E-08	649740.9 4291044.4	52.1	5.65	11.16
2.63 YES						
L0004810	0	0.33130E-08	649759.8 4291059.2	52.3	5.65	11.16
2.63 YES						
L0004811	0	0.33130E-08	649778.7 4291074.1	52.4	5.65	11.16
2.63 YES						
L0004812	0	0.33130E-08	649797.6 4291088.9	52.5	5.65	11.16
2.63 YES						
L0004813	0	0.33130E-08	649816.5 4291103.7	52.6	5.65	11.16
2.63 YES						
L0004814	0	0.33130E-08	649835.4 4291118.5	52.8	5.65	11.16
2.63 YES						
L0004815	0	0.33130E-08	649854.2 4291133.3	52.9	5.65	11.16
2.63 YES						
L0004816	0	0.33130E-08	649873.1 4291148.1	53.0	5.65	11.16
2.63 YES						
	VERSIO		*** 3RD LEG LAYOVI	ER CNONSTRU	CTION EM	ISSIONS -
UNMITIGATED		***	07/10/23			
*** AERMET - \	VERSION		***			
		***	21:24:19			

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

	NUMBER EMISSION RATE			BASE	RELEASE	INIT.
INIT. URBAN	EMISSION RATE					
SOURCE	PART. (GRAMS/SEC)	Χ	Υ	ELEV.	HEIGHT	SY
SZ SOURCE	SCALAR VARY					
ID	CATS.	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

L0004817 2.63 YES	0	0.33130E-08	649892.0 4291162.9	53.1	5.65	11.16
L0004818 2.63 YES	0	0.33130E-08	649910.9 4291177.8	53.2	5.65	11.16
L0004819 2.63 YES	0	0.33130E-08	649929.8 4291192.6	53.4	5.65	11.16
L0004820 2.63 YES	0	0.33130E-08	649948.7 4291207.4	53.5	5.65	11.16
L0004821 2.63 YES	0	0.33130E-08	649968.1 4291221.3	53.6	5.65	11.16
L0004822 2.63 YES	0	0.33130E-08	649989.4 4291232.4	53.6	5.65	11.16
L0004823 2.63 YES	0	0.33130E-08	650010.6 4291243.6	53.6	5.65	11.16
L0004824 2.63 YES	0	0.33130E-08	650031.9 4291254.7	53.6	5.65	11.16
L0004825 2.63 YES	0	0.33130E-08	650053.2 4291265.8	53.6	5.65	11.16
L0004826 2.63 YES	0	0.33130E-08	650074.4 4291277.0	53.7	5.65	11.16
L0004827 2.63 YES	0	0.33130E-08	650095.7 4291288.1	53.7	5.65	11.16
L0004828 2.63 YES	0	0.33130E-08	650117.9 4291297.0	53.7	5.65	11.16
L0004829 2.63 YES	0	0.33130E-08	650140.6 4291304.9	53.7	5.65	11.16
L0004830 2.63 YES	0	0.33130E-08	650163.2 4291312.9	53.7	5.65	11.16
L0004831 2.63 YES	0	0.33130E-08	650185.8 4291320.9	53.7	5.65	11.16
L0004832 2.63 YES	0	0.33130E-08	650208.5 4291328.9	53.7	5.65	11.16
L0004833 2.63 YES	0	0.33130E-08	650231.1 4291336.9	53.7	5.65	11.16
L0004834 2.63 YES	0	0.33130E-08	650253.7 4291344.9	53.7	5.65	11.16
L0004835 2.63 YES	0	0.33130E-08	650276.3 4291352.9	53.7	5.65	11.16
L0004836 2.63 YES	0	0.33130E-08	650299.0 4291360.9	53.7	5.65	11.16
L0004837 2.63 YES	0	0.33130E-08	650321.6 4291368.8	53.8	5.65	11.16
L0004838 2.63 YES	0	0.33130E-08	650345.2 4291373.2	53.8	5.65	11.16
L0004839 2.63 YES	0	0.33130E-08	650368.8 4291377.5	53.8	5.65	11.16

L000484	40	0	0.33130E-08	650392.4 42	291381.9	53.8	5.65	11.16
2.63	YES							
L000484	41	0	0.33130E-08	650416.0 42	291386.3	53.8	5.65	11.16
2.63	YES							
L000484	42	0	0.33130E-08	650439.6 42	291390.6	53.8	5.65	11.16
2.63	YES							
L00048	43	0	0.33130E-08	650463.2 42	291395.0	53.8	5.65	11.16
2.63	YES							
L00048		0	0.33130E-08	650486.8 42	291399.4	53.8	5.65	11.16
2.63	YES							
VOL1		0	0.37500E-04	650665.3 42	291406.9	53.2	3.40	11.63
3.16	YES							
VOL2		0	0.37500E-04	650564.0 42	291398.4	53.2	3.40	20.23
3.16	YES							
VOL3		0	0.37500E-04	650456.4 42	291399.5	53.9	3.40	15.12
3.16	YES							
L00048		0	0.62500E-05	650353.1 42	291409.6	54.2	3.40	40.47
1.58	YES	_					2 40	
L00048		0	0.62500E-05	650268.8 42	291389.3	54.5	3.40	40.47
1.58	YES	•	0 605005 05	650406 0 40	204264 0	5.4 F	2 40	40 47
L00048		0	0.62500E-05	650186.2 42	291361.9	54.5	3.40	40.47
1.58	YES	•	0 (25005 05	650405 4 40	204220	54.0	2 40	40 47
L00048		0	0.62500E-05	650105.1 42	291330.6	54.8	3.40	40.47
1.58	YES	0	0 (35005 05	CE0027 C 42	001201 4	F2 7	2 40	40 47
L00048		0	0.62500E-05	650027.6 42	291291.4	53.7	3.40	40.47
1.58 L00048	YES	0	0.62500E-05	649951.8 42	001240 7	52.9	3.40	40.47
1.58	YES	О	0.02300E-03	049951.6 42	291240.7	52.9	3.40	40.47
L00048		0	0.53570E-05	649876.1 42	001102 7	52.5	3.40	26.51
1.58	YES	Ø	0.33370E-03	0496/0.1 42	231103.7	32.3	3.40	20.31
L00048	_	0	0.53570E-05	649832.0 42	0011/17 5	52.3	3.40	26.51
1.58	YES	Ð	0.555701-05	049032.0 42	291147.3	32.3	3.40	20.51
L00048	_	0	0.53570E-05	649787 9 43	091111 <i>A</i>	52.0	3.40	26.51
1.58	YES	J	0.555702 05	043707.3 42		32.0	3.40	20.51
		RSTO	N 22112 ***	*** 3RD 1F	EG LAYOVER	CNONSTRUC	TTON FMT	SSTONS -
UNMITIG			***	07/10/23		2		5510.15
	RMET - VER	SION	19191 ***	***	-			
, ()			***	21:24:19				

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER	EMISSION RATE			BASE	RELEASE	INIT.
INIT.	URBAN	EMISSIC	N RATE					
SO	JRCE	PART.	(GRAMS/SEC)	X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR	VARY					
	ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

L0004854	0	0.53570E-05	649743.9 4291075.2	51.8	3.40	26.51
1.58 YES L0004855	0	0.53570E-05	649699.8 4291039.1	51.6	3.40	26.51
1.58 YES L0004856	0	0.53570E-05	649655.7 4291002.9	51.4	3.40	26.51
1.58 YES L0004857	0	0.53570E-05	649611.7 4290966.8	51.1	3.40	26.51
1.58 YES L0004858	0	0.18750E-04	649551.8 4290913.5	50.8	3.40	36.74
1.58 YES L0004859	0	0.18750E-04	649490.4 4290863.8	50.5	3.40	36.74
1.58 YES L0004860	0	0.93750E-05	649426.2 4290799.7	50.2	3.40	23.26
1.58 YES L0004861	0	0.93750E-05	649387.6 4290767.9	50.1	3.40	23.26
1.58 YES L0004862	0	0.93750E-05	649349.1 4290736.1	49.9	3.40	23.26
1.58 YES L0004863	0	0.93750E-05	649310.5 4290704.3	49.8	3.40	23.26
1.58 YES L0004864	0	0.62500E-05	649148.7 4290768.0	49.3	3.40	11.63
1.58 YES L0004865	0	0.62500E-05	649170.0 4290754.9	49.4	3.40	11.63
1.58 YES L0004866	0	0.62500E-05	649191.3 4290741.9	49.4	3.40	11.63
1.58 YES L0004867	0	0.62500E-05	649212.7 4290728.9	49.5	3.40	11.63
1.58 YES L0004868	0	0.62500E-05	649234.0 4290715.8	49.5	3.40	11.63
1.58 YES L0004869	0	0.62500E-05	649255.3 4290702.8	49.5	3.40	11.63
1.58 YES VOL12	0	0.00000E+00	650665.3 4291406.9	53.2	1.30	11.63
1.21 YES VOL22	0	0.00000E+00	650564.0 4291398.4	53.2	1.30	20.23
1.21 YES VOL32	0	0.00000E+00	650456.4 4291399.5	53.9	1.30	15.12
1.21 YES L0004870	0	0.00000E+00	650353.1 4291409.6	54.2	1.30	40.47
0.60 YES L0004871	0	0.00000E+00	650268.8 4291389.3	54.5	1.30	40.47
0.60 YES L0004872	0	0.00000E+00	650186.2 4291361.9	54.5	1.30	40.47
0.60 YES L0004873	0	0.00000E+00	650105.1 4291330.6	54.8	1.30	40.47
0.60 YES						

L0004874	0	0.00000E+00	650027.6 4291291.4	53.7	1.30	40.47
0.60 YES						
L0004875	0	0.00000E+00	649951.8 4291248.7	52.9	1.30	40.47
0.60 YES						
L0004876	0	0.00000E+00	649876.1 4291183.7	52.5	1.30	26.51
0.60 YES						
L0004877	0	0.00000E+00	649832.0 4291147.5	52.3	1.30	26.51
0.60 YES						
L0004878	0	0.00000E+00	649787.9 4291111.4	52.0	1.30	26.51
0.60 YES						
L0004879	0	0.00000E+00	649743.9 4291075.2	51.8	1.30	26.51
0.60 YES						
L0004880	0	0.00000E+00	649699.8 4291039.1	51.6	1.30	26.51
0.60 YES						
L0004881	0	0.00000E+00	649655.7 4291002.9	51.4	1.30	26.51
0.60 YES						
L0004882	0	0.00000E+00	649611.7 4290966.8	51.1	1.30	26.51
0.60 YES			440554 0 4000040 5		4 22	24 -4
L0004883	0	0.00000E+00	649551.8 4290913.5	50.8	1.30	36.74
0.60 YES	•	0 000005 00	640400 4 4000060 0		4 20	26.74
L0004884	0	0.00000E+00	649490.4 4290863.8	50.5	1.30	36.74
0.60 YES	•	0 000005 00	640406 0 4000700 7		4 20	22.26
L0004885	0	0.00000E+00	649426.2 4290799.7	50.2	1.30	23.26
0.60 YES	0	0 000005.00	(40207 (4200767 (1 20	22.26
L0004886	0	0.00000E+00	649387.6 4290767.9	50.1	1.30	23.26
0.60 YES L0004887	0	0.00000E+00	649349.1 4290736.1	49.9	1.30	23.26
0.60 YES	О	0.0000000000000000000000000000000000000	049349.1 4290/30.1	49.9	1.30	23.20
L0004888	0	0.00000E+00	649310.5 4290704.3	49.8	1.30	23.26
0.60 YES	Ø	0.0000000	049310.3 4290704.3	49.0	1.50	23.20
L0004889	0	0 00000E±00	649148.7 4290768.6	49.3	1.30	11.63
0.60 YES	U	0.000001+00	049148.7 4290708.6	49.5	1.50	11.05
L0004890	0	a aaaaaF±aa	649170.0 4290754.9	49.4	1.30	11.63
0.60 YES	O	0.00000100	0+3170.0 +230734.3	42.4	1.50	11.05
	- VERSTO	N 22112 ***	*** 3RD LEG LAYO\	/FR CNONSTRII	CTTON FA	TSSTONS -
UNMITIGATED	VENSIO	***	07/10/23	Lit Citolis ino	C. TON LI	110010110
*** AERMET -	VERSION	19191 ***	***			
,	. 2.1.52011	***	21:24:19			
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		NUMBER	EMISSION RATE			BASE	RELEASE	INIT.
IN	IT. URBAN	EMISSIO	N RATE					
	SOURCE	PART.	(GRAMS/SEC)	X	Υ	ELEV.	HEIGHT	SY
SZ	SOURCE	SCALAR	VARY					
	ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)

	,		_	-														
(METERS)		B'	Y														

L0004891	0	0.00000E+00	649191.3 4290741.9	49.4	1.30	11.63
0.60 YES						
L0004892	0	0.00000E+00	649212.7 4290728.9	49.5	1.30	11.63
0.60 YES						
L0004893	0	0.00000E+00	649234.0 4290715.8	49.5	1.30	11.63
0.60 YES						
L0004894	0	0.00000E+00	649255.3 4290702.8	49.5	1.30	11.63
0.60 YES						
★ *** AERMOD	- VERSIO	N 22112 ***	*** 3RD LEG LAYOVE	R CNONSTRU	ICTION EM	ISSIONS -
UNMITIGATED		***	07/10/23			
*** AERMET -	VERSION	19191 ***	***			

·** 21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS

SRCGROUP ID SOURCE IDS

ALL L0000006	L0000001 , L0000007	, L0000002 , L0000008	, L0000003 ,	, L0000004	, L0000005	,
L0000014	L0000009 , L0000015	, L0000010 , L0000016	, L0000011	, L0000012	, L0000013	,
L0000022	L0000017 , L0000023	, L0000018 , L0000024	, L0000019	, L0000020	, L0000021	y
L0000030	L0000025 , L0004728	, L0000026 , L0004729	, L0000027	, L0000028	, L0000029	,
L0004735	L0004730 , L0004736	, L0004731 , L0004737	, L0004732	, L0004733	, L0004734	,
L0004743	L0004738 , L0004744	, L0004739 , L0004745	, L0004740	, L0004741	, L0004742	,
L0004750	VOL41 , L0004751	, L0004746 , L0004752	, L0004747	, L0004748	, L0004749	,
	L0004753	, L0004754	, L0004755	, L0004756	, L0004757	,

L0004758	, L0004759	, L0004760	y			
L0004766	L0004761 , L0004767	, L0004762 , L0004768	, L0004763	, L0004764	, L0004765	,
L0004774	L0004769 , L0004775	, L0004770 , L0004776	, L0004771	, L0004772	, L0004773	,
L0004782	L0004777 , L0004783	, L0004778 , L0004784	, L0004779	, L0004780	, L0004781	,
L0004790	L0004785 , L0004791	, L0004786 , L0004792	, L0004787	, L0004788	, L0004789	,
L0004798	L0004793 , L0004799	, L0004794 , L0004800	, L0004795	, L0004796	, L0004797	,
L0004806	L0004801 , L0004807	, L0004802 , L0004808	, L0004803	, L0004804	, L0004805	,
L0004814	L0004809 , L0004815	, L0004810 , L0004816	, L0004811	, L0004812	, L0004813	,
L0004822	L0004817 , L0004823	, L0004818 , L0004824	, L0004819	, L0004820	, L0004821	,
L0004830	L0004825 , L0004831	, L0004826 , L0004832	, L0004827	, L0004828	, L0004829	,
L0004838	L0004833 , L0004839	, L0004834 , L0004840	, L0004835	, L0004836	, L0004837	,
VOL2	L0004841 , VOL3	, L0004842 , L0004845	, L0004843	, L0004844	, VOL1	,
UNMITIGATED	, L0004852 D - VERSION	19191 *** ***	* 3RD LEG LAY0 07/10/23	-	•	-
*** MODELO	PTs: RegD	PAG FAULT CONC EL		RBAN ADJ_U*		

*** SOURCE IDS DEFINING SOURCE GROUPS

SRCGROUP ID SOURCE IDs

L0004859		, L0004855 , L0004861	, L0004856	, L0004857	, L0004858	J
L0004867		, L0004863 , L0004869	, L0004864	, L0004865	, L0004866	,
L0004872		, VOL22 , L0004874	, VOL32	, L0004870	, L0004871	,
L0004880		, L0004876 , L0004882	, L0004877	, L0004878	, L0004879	,
L0004888		, L0004884 , L0004890	, L0004885	, L0004886	, L0004887	,
UNMITIGATED	D - VERSION	22112 *** ** *** 19191 *** ***	°* 3RD LEG LA 07/10/23	, L0004894 YOVER CNONSTRUC		-
*** MODELO	PTs: RegDF	PAG FAULT CONC EL	-	JRBAN ADJ_U*		
***			*** SOURG	CE IDs DEFINED	AS URBAN SOURCE	ΞS

SOURCE IDs

URBAN ID URBAN POP

L0000005 L0000008	2500000. , L0000006	L0000001 , , L0000007	L0000002	, L0000003	, L0000004	,		
L0000014	L0000009 , L0000015	, L0000010 , L0000016	, L0000011	, L0000012	, L0000013	,		
L0000022	L0000017 , L0000023	, L0000018 , L0000024	, L0000019	, L0000020	, L0000021	,		
L0000030	L0000025 , L0004728	, L0000026 , L0004729	, L0000027	, L0000028	, L0000029	,		
L0004735	L0004730 , L0004736	, L0004731 , L0004737	, L0004732	, L0004733	, L0004734	,		

L0004743	L0004738 , L0004744	, L0004739 , L0004745	, L0004740	, L0004741	, L0004742	,
L0004750	VOL41 , L0004751	, L0004746 , L0004752	, L0004747	, L0004748	, L0004749	,
L0004758	L0004753 , L0004759	, L0004754 , L0004760	, L0004755	, L0004756	, L0004757	,
L0004766	L0004761 , L0004767	, L0004762 , L0004768	, L0004763	, L0004764	, L0004765	,
L0004774	L0004769 , L0004775	, L0004770 , L0004776	, L0004771	, L0004772	, L0004773	,
L0004782	L0004777 , L0004783	, L0004778 , L0004784	, L0004779	, L0004780	, L0004781	,
L0004790	L0004785 , L0004791	, L0004786 , L0004792	, L0004787	, L0004788	, L0004789	,
L0004798	L0004793 , L0004799	, L0004794 , L0004800	, L0004795	, L0004796	, L0004797	,
L0004806	L0004801 , L0004807	, L0004802 , L0004808	, L0004803	, L0004804	, L0004805	,
L0004814	L0004809 , L0004815	, L0004810 , L0004816	, L0004811	, L0004812	, L0004813	,
L0004822	L0004817 , L0004823	, L0004818 , L0004824	, L0004819	, L0004820	, L0004821	,
L0004830	L0004825 , L0004831	, L0004826 , L0004832	, L0004827	, L0004828	, L0004829	,
L0004838		, L0004834 , L0004840	, L0004835	, L0004836	, L0004837	'n
VOL2	L0004841 , VOL3	, L0004842 , L0004845	, L0004843	, L0004844	, VOL1	,
UNMITIGATED	, L0004852 DD - VERSION	, L0004847 , L0004853 22112 *** * ***	** 3RD LEG LAY 07/10/23	, L0004849 YOVER CNONSTRUC	-	
· ·-			:24:19			

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDS DEFINED AS URBAN SOURCES

URBAN ID	URBAN POP			SOURCE	IDs
L0004859	L0004854 , L0004860	, L0004855 , L0004861	, L0004856	, L0004857	, L0004858 ,
L0004867	L0004862 , L0004868	, L0004863 , L0004869	, L0004864	, L0004865	, L0004866 ,
L0004872	VOL12 , L0004873	, VOL22 , L0004874	, VOL32	, L0004870	, L0004871 ,
L0004880	L0004875 , L0004881	, L0004876 , L0004882	, L0004877 ,	, L0004878	, L0004879 ,
L0004888	L0004883 , L0004889	, L0004884 , L0004890	, L0004885	, L0004886	, L0004887 ,
UNMITIGATED	D - VERSION	*** 19191 *** ***	** 3RD LEG LA 07/10/23	, L0004894 YOVER CNONSTRUC	TION EMISSIONS -

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

*** X-COORDINATES OF GRID ***

(METERS)

649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2, 649826.2, 649838.2, 649850.2, 649862.2,

*** Y-COORDINATES OF GRID ***
(METERS)

4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0, 4291359.0, 4291376.0, 4291393.0,

4291410.0,

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -*** UNMITIGATED 07/10/23

*** *** AERMET - VERSION 19191 ***

21:24:19

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

649802.20	649814.26	649	826.20	649	838.20		X-COORD 649778.20	
						-		
4291409.99	I	54.60		54.80		54.90	54.80	54.90
54.90	54.96)	55.00		55.00			
4291392.99	1	54.70		54.80		54.80	54.80	54.80
54.80	54.96)	54.90		55.00		54.80 54.90	
4291375.99	1	54.80		54.90		54.90	54.90	54.90
54.90	54.96)	54.90		55.00		54.90	
4291358.99	1	54.80		54.90		54.90	54.90	54.90
54.90	54.96)	54.90		55.00			
4291341.99	1	54.80		54.80		54.90	55.00	55.00
55.00	55.00)	54.90		54.90			
4291324.99		54.80		54.90		55.20	55.40	55.40
55.30	55.20)	55.00		54.90			
4291307.99		55.00		54.90		55.10	55.20	55.20
55.30	55.60)	55.60		55.40			
4291290.99		56.10		56.20		56.50	56.80	56.70
57.00	56.80)	56.10		55.50			
4291273.99		57.10		57.80		57.90	58.00	58.00
57.90	57.10)	55.80		55.30			
4291256.99		57.70		58.00		57.90	58.00	58.00
58.00	57.00)	55.60		55.00			
4291239.99		57.60		57.60		57.40	57.30	57.30
57.20	56.50)	55.00		54.00			
						LAYOVER	CNONSTRUCTION	EMISSIONS -
UNMITIGATED		**	*	07/1	0/23			

*** AERMET - VERSION 19191 ***

*** 21:24:19 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	649850.20	649862.20	X-COORD (METERS)
4291409.99	55.10	55.10	
4291392.99	55.10	55.20	
4291375.99	55.20	55.20	
4291358.99	55.10	55.20	
4291341.99	55.00	55.10	
4291324.99	54.90	54.80	
4291307.99	55.00	54.60	
4291290.99	55.10	54.60	
4291273.99	55.10	54.50	
4291256.99	54.90	54.20	
4291239.99	53.90	53.70	
	VERSION 22112		LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED	***	07/10/	23
*** AERMET -	VERSION 19191		
	***	21:24:19	
		PAGE 15	
*** MODELOPTs	: RegDFAULT	CONC ELEV FL	GPOL URBAN ADJ_U*
		*** NET 105	W TD. DOCELLECH . NETHODY TVD5
GRIDCART ***		""" NEIWOR	K ID: ROSEHIGH ; NETWORK TYPE:

GRIDCART ***

Y-COORD

* HILL HEIGHT SCALES IN METERS *

X-COORD (METERS)

(METERS)	649742	2.20 6497	754.20	6497	66.20	649778.20 `	649790.20
649802.20	649814.20	649826.20	6498	38.20			
	_						
4291409.99	54	4.60	54.80		54.90	54.80	54.90
54.90	54.90	55.00		55.00			
4291392.99	54	4.70	54.80		54.80	54.80	54.80
54.80	54.90	54.90		55.00			
4291375.99	54	4.80	54.90		54.90	54.90	54.90
54.90	54.90	54.90		55.00			
4291358.99	54	4.80	54.90		54.90	54.90	54.90
54.90	54.90	54.90		55.00			

4291341.99		54.80		54.80		54.90	55.00	55.00
55.00	55.00	E4 90	54.90	E4 00	54.90	FF 20	FF 40	FF 40
4291324.99 55.30	55.20	54.80	55.00	54.90	54.90	55.20	55.40	55.40
4291307.99 57.90		55.00		54.90		57.90	57.90	57.90
57.90	55.60	56.40	55.60		55.40	57 00		57.00
4291290.99 57.90	56 80	56.10	56 10	57.50	55 50	57.90	57.90	57.90
4291273.99	30.00	57.40	30.10	57.80	33.30	57.90	58.00	58.00
57.90	57.80		57.80		55.30			
4291256.99	F7 00	57.70	F7 00	58.00	FF 00	57.90	58.00	58.00
58.00 4291239 99 1	57.00	57 60	57.80	57 60	55.00	57 40	57 30	57.30
57.50	57.30	37.00	58.00	37.00	58.00	37.40	57.30	37.30
↑ *** AERMOD -	- VERSION	22112	***	*** 3R	D LEG	LAYOVER CNON	STRUCTION EMIS	SSIONS -
UNMITIGATED		**	*	07/1	0/23			
*** AERMET -	VERSION	19191 ***	***	ኮጥጥ				
			•	21.24.1	9			
				PAGE 1				
*** MODELOPTS	: Reg	DFAULT	CONC	ELEV	FLGPOL	URBAN ADJ	_U*	
			*:	** NFTW	ORK TD	· ROSEHTGH ·	NETWORK TYPE	:•
GRIDCART ***				NLIW	OKK ID	. NOSEITENT,	NETWORK THE	•
					:	* HILL HEIGH	T SCALES IN ME	TERS *
V-COORD I					:	* HILL HEIGH		
Y-COORD (METERS)		350.20	6498	362.20	:	* HILL HEIGH	T SCALES IN ME	
		350.20 	6498 	362.20 		* HILL HEIGH		
		350.20 	6498 	362.20 		* HILL HEIGH 		
(METERS) 	6498 					* HILL HEIGH -		
	6498 	 55.10		 55.10	: 	* HILL HEIGH 		
(METERS) 4291409.99	6498 	55.10 55.10		55.10 55.20		* HILL HEIGH -		
(METERS) 	6498 	55.10 55.10		55.10 55.20	: 	* HILL HEIGH 		
(METERS) 	6498 	55.10 55.10 55.20		55.10 55.20 55.20		* HILL HEIGH 		
(METERS) 	6498 	55.10 55.10 55.20 55.10		55.10 55.20 55.20 55.20	 	* HILL HEIGH 		
(METERS) 	6498 	55.10 55.10 55.20 55.10 55.00		55.10 55.20 55.20 55.20 55.20	 	* HILL HEIGH -		
(METERS) 	6498 	55.10 55.10 55.20 55.20 55.00 54.90		55.10 55.20 55.20 55.20 55.10 54.80	 	* HILL HEIGH 		
(METERS) 	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.00		55.10 55.20 55.20 55.20 55.10 54.80 54.60	 	* HILL HEIGH		
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.00 55.10		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60		* HILL HEIGH		
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90		55.10 55.20 55.20 55.20 55.10 54.60 54.60 54.60	 ·	* HILL HEIGH		
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90 53.90		55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.50 53.70	 ·	 -		ERS)
(METERS)	6498 	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90 53.90	***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.50 53.70	 	 -	X-COORD (MET	ERS)
(METERS)	6498	55.10 55.10 55.20 55.10 55.00 54.90 55.00 55.10 55.10 54.90 53.90 22112	***	55.10 55.20 55.20 55.20 55.10 54.60 54.60 54.50 54.20 *** 3R	 	 -	X-COORD (MET	ERS)
(METERS)	6498	55.10 55.10 55.20 55.10 55.00 54.90 55.10 55.10 54.90 53.90 22112 **	*** ***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.20 53.70 *** 3R	 D LEG 0/23	 -	X-COORD (MET	ERS)
(METERS)	6498	55.10 55.10 55.20 55.10 55.00 55.00 55.10 55.10 55.10 54.90 53.90 22112 **	*** ***	55.10 55.20 55.20 55.20 55.10 54.60 54.60 54.50 54.20 *** 3R 07/1 ***	 D LEG 0/23	 -	X-COORD (MET	ERS)
(METERS)	6498	55.10 55.10 55.20 55.10 55.00 54.90 55.10 54.90 53.90 22112 **	*** ***	55.10 55.20 55.20 55.20 55.10 54.80 54.60 54.60 54.50 54.70 *** 3R 07/1	 D LEG 0/23 9		X-COORD (MET	ERS)

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS) 649802.20 6	49814.20	649		6498			X-COORD 649778.20	(METERS) 649790.20
4291409.99 1.80	1.80	1.80		1.80	1.80	1.80	1.80	1.80
4291392.99		1.80		1.80		1.80	1.80	1.80
1.80	1.80		1.80		1.80			
4291375.99		1.80		1.80		1.80	1.80	1.80
1.80	1.80	4 00	1.80		1.80	1 00	4 00	4 00
4291358.99 1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
4291341.99		1.80	1.00	1.80	1.00	1.80	1.80	1.80
1.80	1.80		1.80		1.80	1.00	1.00	1.00
4291324.99		1.80	_,,,	1.80	_,,,	1.80	1.80	1.80
1.80	1.80		1.80		1.80			
4291307.99		1.80		1.80		1.80	1.80	1.80
1.80	1.80		1.80		1.80			
4291290.99		1.80		1.80		1.80	1.80	1.80
1.80	1.80	1 00	1.80	1 00	1.80	1 00	1 00	1 00
4291273.99		1.80	1.80	1.80	1 00	1.80	1.80	1.80
1.80 4291256.99	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
1.80	1.80		1.80		1.80	1.00	1.00	1.00
4291239.99		1.80		1.80	1.00	1.80	1.80	1.80
1.80	1.80				1.80			
↑ *** AERMOD	- VERSION					.AYOVER	CNONSTRUCTION	EMISSIONS -
UNMITIGATED				07/10)/23			
*** AERMET -	VERSION			**				
		***	2	1:24:19)			
*** MODELOPTS	s: RegD	FAULT		AGE 18		URBAN	ADJ_U*	
			**	* NETWO	IRK TD.	RUCEUT.	GH ; NETWORK	TVDE·
GRIDCART ***				INL I WC	MK ID.	KOSLIII	OII , INLIMORK	1116.
5.125 G. 1111								
					* REC	EPTOR F	LAGPOLE HEIGHT	S IN METERS *

Y-COORD | X-COORD (METERS) (METERS) | 649850.20 649862.20

```
4291409.99
                       1.80
                                    1.80
 4291392.99
                       1.80
                                    1.80
 4291375.99
                       1.80
                                    1.80
 4291358.99
                       1.80
                                    1.80
 4291341.99
                       1.80
                                    1.80
 4291324.99
                       1.80
                                    1.80
 4291307.99
                       1.80
                                    1.80
 4291290.99
                       1.80
                                    1.80
 4291273.99
                       1.80
                                    1.80
 4291256.99
                       1.80
                                    1.80
 4291239.99
                       1.80
                                    1.80
★ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED
                          ***
                                     07/10/23
*** AERMET - VERSION 19191 ***
                                  21:24:19
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(650194.2, 4291271.5,	53.3,	53.3,	1.8);	(650195.6,
4291266.8, 53.4, 53.4,			,,	,
(650196.4, 4291262.6,			1.8);	(650197.8,
4291257.9, 53.6, 53.6,			• •	,
(650199.8, 4291253.2,			1.8);	(650202.0,
4291248.0, 53.7, 53.7,				
(650204.2, 4291242.5,	53.7,	53.7,	1.8);	(650205.8,
4291236.7, 53.8, 53.8,		1.8);		
(650212.3, 4291238.7,	53.8,	53.8,	1.8);	(650218.3,
4291240.5, 53.7, 53.7,		1.8);		
(650224.7, 4291242.5,	53.7,	53.7,	1.8);	(650232.7,
4291245.3, 53.7, 53.7,		1.8);		
(650241.1, 4291248.3,			1.8);	(650249.2,
4291250.9, 53.7, 53.7,				
(650256.6, 4291253.7,			1.8);	(650266.2,
4291257.1, 53.7, 53.7,				
(650206.4, 4291276.2,			1.8);	(650208.5,
4291273.2, 53.4, 53.4,				
(650210.1, 4291268.6,			1.8);	(650212.3,
4291264.6, 53.6, 53.6,				
(650235.3, 4291286.2,			1.8);	(650236.7,
4291283.0, 53.6, 53.6,				
(650238.2, 4291279.8,			1.8);	(650239.2,
4291276.2, 53.6, 53.6,		•	>	
(650239.7, 4291273.0,	53.6,	53.6,	1.8);	(650256.4,

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4291292.0,
               53.7, 53.7,
                                       1.8);
                                53.7,
     (650258.0, 4291286.8,
                                                        1.8);
                                                                      (650260.0,
                                            53.7,
                          53.7,
4291279.8,
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                                 53.7,
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    (650260.6, 4291272.4,
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                                            50.8,
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                                                                      (649394.6,
4290600.2,
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                                 50.5,
     (649410.7, 4290612.7,
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                                                        1.8);
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4290624.3,
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     (649417.8, 4290633.2,
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     (649391.9, 4290566.2,
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4290559.0,
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     (649406.2, 4290552.8,
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4290537.6,
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4290599.3,
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                                       1.8);
     ( 649449.1, 4290591.2,
                                 51.0,
                                            51.0,
                                                        1.8);
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4290584.1,
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                                       1.8);
                                 50.8,
     ( 649458.1, 4290644.0,
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                                                        1.8);
                                                                      (649468.8,
                           51.1,
4290628.8,
                51.1,
                                       1.8);
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     (649481.3, 4290619.0,
                                            51.3,
                                                        1.8);
                                                                      (649497.4,
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                                       1.8);
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     (649452.7, 4290733.4,
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                                            50.2,
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                           50.3,
4290745.0,
                                       1.8);
                                 50.3,
                                            50.3,
     (649473.2, 4290753.0,
                                                        1.8);
                                                                      (649487.6,
                          50.2,
4290762.0,
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                                       1.8);
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                                            50.2,
     (649458.9, 4290719.1,
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                                       1.8);
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4290692.2,
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     (649496.5, 4290676.2,
                                 50.8,
                                                                      (649494.7,
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               50.3,
                                       1.8);
4290750.4,
     (649510.8, 4290725.3,
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                                                                      (649531.4,
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                           50.7,
4290701.2,
                50.7,
                                       1.8);
     (649512.6, 4290658.3,
                                 51.1,
                                                        1.8);
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                51.6,
                                       1.8);
4290620.7,
                                 50.8,
                                            50.8,
     (649581.9, 4290816.0,
                                                        1.8);
                                                                      (649595.6,
                           50.9,
                                       1.8);
4290822.0,
               50.9,
                                 50.9,
     (649605.9, 4290832.5,
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                                            50.9,
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                51.0,
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                                       1.8);
4290841.6,
     (649599.3, 4290800.4,
                                 51.0,
                                                        1.8);
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4290787.9,
                51.2,
                                       1.8);
                                 51.3,
     (649623.4, 4290818.3,
                                                        1.8);
                                                                      (649627.9,
                                            51.3,
                51.3,
                           51.3,
                                       1.8);
4290802.2,
                                 50.9,
     (649634.6, 4290882.6,
                                                                      (649644.4,
                                            50.9,
                                                        1.8);
                         50.9,
               50.9,
                                       1.8);
4290891.5,
     (649657.9, 4290903.1,
                                 51.0,
                                            51.0,
                                                        1.8);
                                                                      (649662.3,
                          51.6,
                                       1.8);
               51.6,
4290845.9,
     (649670.4, 4290910.3,
                                 51.1,
                                            51.1,
                                                        1.8);
                                                                      (649672.2,
                                       1.8);
                           51.6,
4290855.8,
               51.6,
     (649681.1, 4290918.3,
                                            51.1,
                                                                      (649690.0,
                                 51.1,
                                                        1.8);
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4290926.4, 51.1, 51.1,
                                      1.8);
     ( 649703.5, 4290939.8,
                                51.1,
                                                       1.8);
                                                                    (649686.5,
                                           51.1,
                         51.6,
4290867.4,
                                      1.8);
               51.6,
     (649698.1, 4290813.7,
                                51.6,
                                           51.6,
                                                       1.8);
                                                                     (649718.7,
                         51.6,
4290834.3,
               51.6,
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                                           51.7,
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↑ *** AERMOD - VERSION 22112 ***
                                    *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED
                                     07/10/23
*** AERMET - VERSION 19191 ***
                                  ***
                        ***
                                  21:24:19
                                  PAGE 20
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
*** MODELOPTs:
                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)
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                                      1.8);
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                                           52.8,
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★ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                          ***
UNMITIGATED
                                    07/10/23
                                  ***
 *** AERMET - VERSION 19191 ***
                       ***
                                  21:24:19
                                  PAGE 21
 *** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                           *** DISCRETE CARTESIAN RECEPTORS ***
                                         (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                         (METERS)
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↑ *** AERMOD - VERSION 22112 ***
                                *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED
                                 07/10/23
 *** AERMET - VERSION 19191 ***
                                21:24:19
                                PAGE 22
*** MODELOPTs:
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                    * SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT
BE PERFORMED *
                      LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR
FASTAREA/FASTALL
                            SOURCE
                                          - - RECEPTOR LOCATION - -
DISTANCE
                              ID
                                          XR (METERS) YR (METERS)
(METERS)
                           L0000009
                                             650194.2
                                                          4291271.5
-14.43
                           L0000009
                                             650195.6
                                                         4291266.8
-10.33
                                             650196.4
                           L0000009
                                                         4291262.6
-6.66
                           L0000009
                                             650197.8
                                                          4291257.9
-2.04
                           L0000009
                                             650206.4
                                                          4291276.2
-4.41
                           L0000009
                                             650208.5
                                                          4291273.2
-1.78
                           L0000010
                                             650194.2
                                                          4291271.5
-4.62
                           L0000010
                                             650195.6
                                                          4291266.8
-1.77
                           L0000010
                                             650206.4
                                                          4291276.2
-14.94
                                             650208.5
                                                          4291273.2
                           L0000010
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L0000010

650210.1

4291268.6

-12.30

-7.71

2.52	L0000010	650212.3	4291264.6
-3.53	L0000010	650235.3	4291286.2
-0.60	L0000011	650235.3	4291286.2
-17.61	L0000011	650236.7	4291283.0
-14.29	L0000011	650238.2	4291279.8
-10.85	L0000011	650239.2	4291276.2
-7.13	L0000011	650239.7	4291273.0
-3.93			
-4.77	L0000011	650256.4	4291292.0
-1.93	L0000011	650258.0	4291286.8
-15.07	L0000012	650256.4	4291292.0
-10.41	L0000012	650258.0	4291286.8
-3.59	L0000012	650260.0	4291279.8
	L0004782	649216.8	4290755.2
-5.15	L0004783	649247.5	4290740.0
-0.69	L0004784	649247.5	4290740.0
-7.14	L0004848	650053.1	4291363.7
-25.36	L0004848	650066.5	4291373.5
-29.29	L0004848	650079.0	4291366.4
-42.75	L0004849	650053.1	4291363.7
-10.32	L0004850	649907.3	4291317.2
-5.40			
-11.94	L0004850	649903.8	4291306.5
-45.05	L0004850	649917.2	4291272.5
-21.14	L0004850	649911.8	4291301.1
-26.31	L0004850	649924.3	4291302.9
-25.36	L0004873	650053.1	4291363.7

	L0004873	650066.5	4291373.5
-29.29	L0004873	650079.0	4291366.4
-42.75			
-10.32	L0004874	650053.1	
-5.40 ↑ *** AERMOD - VERSION 22112 UNMITIGATED * *** AERMET - VERSION 19191 ***	** 07/10/23	649907.3 LAYOVER CNONS	
*** MODELOPTs: RegDFAULT	PAGE 23 CONC ELEV FLGPOL	URBAN ADJ_	_U*
* SOUR BE PERFORMED *	CE-RECEPTOR COMBINAT	IONS FOR WHIC	CH CALCULATIONS MAY NOT
	THAN 1.0 METER; WIT	THIN OPENPIT;	OR BEYOND 80KM FOR
TASTAILLA TASTALL			
DISTANCE	SOURCE -	- RECEPTOR LO	OCATION
DISTANCE	ID XF	R (METERS) Y	'R (METERS)
(METERS)			
-11.94	L0004875	649903.8	4291306.5
-45.05	L0004875	649917.2	4291272.5
-21.14	L0004875	649911.8	4291301.1
-26.31	L0004875	649924.3	4291302.9
↑ *** AERMOD - VERSION 22112 UNMITIGATED * *** AERMET - VERSION 19191 ***	** 07/10/23	LAYOVER CNONS	STRUCTION EMISSIONS -
*** MODELOPTs: RegDFAULT	PAGE 24 CONC ELEV FLGPOL	. URBAN ADJ_	_U*
PROCESSING ***	***	METEOROLOGICA	AL DAYS SELECTED FOR
			(1=YES; 0=NO)
1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1	111 111	1111111 111

1111111 1111111111 1111111 1111111111 1111111111 111111111 111 1111111111 1111111 1111111111 1111111111 1111111111 11111111111 111 1111111 1111111111 1111111111 111 1111111111 11111111111 1111111 1111111111 1111111 1111111111 111111 1 1 1 1 1 1 1 1 1 1

111111111 1111

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23,

10.80,

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS - UNMITIGATED *** 07/10/23

*** AERMET - VERSION 19191 *** ***

*** 21:24:19

PAGE 25

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL

DATA ***

Surface file: ..\..\MET DATA\14-18.SFC

Met Version: 19191

Profile file: ..\..\MET DATA\14-18.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 93225 Upper air station no.: 23230

Name: UNKNOWN Name:

OAKLAND/WSO_AP

Year: 2014 Year: 2014

First 24 hours of scalar data
YR MO DY JDY HR HO U* W* DT/DZ ZICNV ZIMCH M-O LEN ZO BOWEN

YR MO ALBEDO	DY JDY REF WS	HR 5 WI	HØ D HT	U* REF TA	W*	DT/DZ HT	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	
			D HT									-
			-15.5 0.1			9.000	-999.	162.	30.3	0.05	0.69	
			10.1 2									
14 01			-3.4 0.0				-999.	56.	13.1	0.06	0.69	
1.00	1.06		10.1 2		2.6							
			-12.2 0.1				-999.	134.	23.5	0.05	0.69	
			10.1 2				000	257	F.C. 0	0.05	0.60	
			-23.3 0.2				-999.	25/.	56.0	0.05	0.69	
			10.1 2 16.2 0.1				000	170.	32.2	0 06	0.69	
			10.1				-333.	170.	32.2	0.00	0.09	
			-3.0 0.6				-999	55	12.9	0 06	0.69	
			10.1 2				<i>J</i>	<i></i>	12.5	0.00	0.05	
			-4.8 0.6				-999.	67.	14.7	0.07	0.69	
			10.1 2				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<i>07</i> •	,	0.07	0.05	
			-1.8 0.6				-999.	40.	14.3	0.06	0.69	
	0.67		10.1 2									
14 01			-0.3 0.6				-999.	37.	75.4	0.06	0.69	
0.41	0.82	181.	10.1 2	278.1	2.6)						
			36.6 0.1				80.	141.	-8.6	0.05	0.69	
			10.1 2									
			65.9 0.1				163.	157.	-5.9	0.07	0.69	
			10.1 2									
			82.5 0.1				212.	175.	-5.8	0.07	0.69	
			10.1 2									
			86.0 0.2				246.	246.	-11.1	0.07	0.69	
			10.1 2				206	272	45.6	0.05	0.60	
			74.8 0.2				286.	272.	-15.6	0.05	0.69	
			10.1 2				200	212	16 5	0.00	0.00	
			42.8 0.1				308.	212.	-16.5	0.06	0.69	
			10.1 2 15.1 0.1				215	1./1	20.7	0 06	0.69	
			10.1 2				313.	141.	-20.7	0.00	0.09	
			-9.6 0.1				_000	122	24 4	0.05	0.69	
			10.1				-	122.	24.4	0.05	0.05	
			-1.5 0.6				-999	38.	13.6	0.04	0.69	
			10.1 2				,,,,,,	50.	13.0	0.01	0.03	
			-1.5 0.6				-999.	34.	12.1	0.02	0.69	
	0.72											
			-3.4 0.6				-999.	50.	11.8	0.03	0.69	
1.00	1.20				2.6							
			-2.2 0.6				-999.	40.	11.5	0.03	0.69	
			10.1 2									
			-1.6 0.6				-999.	35.	12.0	0.02	0.69	
			10.1 2									
			-1.9 0.6				-999.	38.	11.9	0.03	0.69	

```
14 01 01 1 24 -5.1 0.090 -9.000 -9.000 -999. 65.
                                                     13.1 0.02 0.69
                               2.0
1.00
     1.57 34. 10.1 276.4
First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
14 01 01 01
            10.1 1 211. 2.36 275.4 99.0 -99.00 -99.00
F indicates top of profile (=1) or below (=0)
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
UNMITIGATED
                               07/10/23
*** AERMET - VERSION 19191 ***
                              ***
                     ***
                              21:24:19
                              PAGE 26
*** MODELOPTs:
                RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                          *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                             ***
                             INCLUDING SOURCE(S): L0000001
                                                              , L0000002
 , L0000003
             , L0000004
                         , L0000005
                                     , L0000008 , L0000009 , L0000010
              L0000006
                         , L0000007
             , L0000012
                         , L0000013
 , L0000011
                        , L0000015
                                    , L0000016 , L0000017 , L0000018
              L0000014
             , L0000020
                         , L0000021
, L0000019
                         , L0000023
                                     , L0000024 , L0000025 , L0000026
              L0000022
 , L0000027
             , L0000028
                              *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                  ** CONC OF DPM IN MICROGRAMS/M**3
   Y-COORD |
                                                      X-COORD (METERS)
              649742.20 649754.20 649766.20
   (METERS)
                                                  649778.20 649790.20
649802.20
           649814.20
                     649826.20
                                  649838.20
 4291409.99 | 0.00123 0.00127 0.00131
                                                    0.00136
                                                               0.00142
 0.00147
             0.00153 0.00160 0.00167
 4291392.99
                  0.00127
                             0.00131
                                         0.00136
                                                    0.00141
                                                               0.00147
 0.00154
             0.00160 0.00168 0.00176
                  0.00132
 4291375.99
                             0.00136
                                         0.00141
                                                    0.00147
                                                               0.00153
             0.00168
                        0.00176
 0.00160
                                   0.00186
 4291358.99
                                         0.00147
                                                    0.00153
                  0.00137
                             0.00141
                                                               0.00160
                        0.00185
             0.00176
                                   0.00196
 0.00167
 4291341.99
              0.00142 0.00147
                                        0.00153
                                                    0.00159
                                                               0.00166
```

1.00 0.82 60. 10.1 277.0 2.0

```
0.00184 0.00194 0.00207
 0.00174
 4291324.99
                               0.00154
                                                       0.00166
                                                                   0.00174
                   0.00148
                                           0.00159
             0.00192
                         0.00204
                                     0.00218
 0.00182
 4291307.99
                   0.00155
                               0.00161
                                           0.00167
                                                       0.00174
                                                                   0.00183
                                     0.00229
 0.00192
             0.00202
                         0.00214
 4291290.99
                   0.00162
                               0.00168
                                           0.00173
                                                       0.00179
                                                                   0.00188
                                     0.00243
 0.00196
             0.00207
                         0.00226
 4291273.99
                   0.00166
                               0.00170
                                           0.00177
                                                      0.00184
                                                                   0.00192
             0.00218
                         0.00242
                                     0.00261
 0.00202
                                                       0.00195
 4291256.99
                   0.00173
                               0.00178
                                           0.00187
                                                               0.00204
 0.00215
             0.00235
                         0.00263
                                     0.00286
                               0.00192
                                                       0.00212
                                                                   0.00224
 4291239.99
                   0.00184
                                           0.00202
             0.00259
                         0.00295
                                     0.00326
 0.00237
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                        ***
UNMITIGATED
                                  07/10/23
 *** AERMET - VERSION 19191 ***
                                21:24:19
                                PAGE 27
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
 *** MODELOPTs:
                           *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                               INCLUDING SOURCE(S): L0000001
                                                                 , L0000002
                          , L0000005
 , L0000003
              , L0000004
                                       , L0000008 , L0000009
                          , L0000007
               L0000006
                                                                 , L0000010
                          , L0000013
 , L0000011
              , L0000012
                                       , L0000016
                                                    , L0000017
                          , L0000015
                                                                 , L0000018
               L0000014
  L0000019
              , L0000020
                          , L0000021
                                       , L0000024
                                                    , L0000025
               L0000022
                          , L0000023
                                                                 , L0000026
  L0000027
             , L0000028
                                *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                    ** CONC OF DPM
                                                      IN MICROGRAMS/M**3
   Y-COORD
                                                         X-COORD (METERS)
   (METERS) |
                             649862.20
                 649850.20
 4291409.99
                   0.00174
                               0.00182
 4291392.99
                   0.00185
                               0.00194
 4291375.99
                   0.00196
                               0.00207
 4291358.99
                               0.00221
                   0.00208
 4291341.99
                   0.00220
                               0.00236
 4291324.99
                   0.00234
                               0.00253
 4291307.99
                   0.00248
                               0.00270
```

```
4291290.99
               0.00263
                             0.00289
 4291273.99
                  0.00282
                             0.00310
 4291256.99
                  0.00309
                             0.00339
                  0.00354
 4291239.99
                             0.00382
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER CNONSTRUCTION EMISSIONS -
                       ***
                              07/10/23
UNMITIGATED
*** AERMET - VERSION 19191 ***
                     ***
                              21:24:19
                              PAGE 28
                RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
*** MODELOPTs:
                          *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                             INCLUDING SOURCE(S): L0000001 , L0000002
 , L0000003
             , L0000004
                         , L0000005
                                     , L0000008 , L0000009 , L0000010
              L0000006
                         , L0000007
                         , L0000013
 , L0000011
             , L0000012
                         , L0000015
                                    , L0000016 , L0000017 , L0000018
              L0000014
 , L0000019
             , L0000020
                        , L0000021
                                     , L0000024 , L0000025 , L0000026
              L0000022
                         , L0000023
 , L0000027
             . L0000028
                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***
                                   ** CONC OF DPM IN MICROGRAMS/M**3
                 **
      X-COORD (M) Y-COORD (M) CONC
                                                          X-COORD (M)
          CONC
Y-COORD (M)
       650194.23
                  4291271.45 0.00256
                                                            650195.61
4291266.76 0.00248
       650196.44 4291262.63
                                 0.00272
                                                            650197.82
4291257.94 0.00260
       650199.75 4291253.25
                                  0.00286
                                                            650201.96
4291248.01
               0.00268
       650204.16
                 4291242.49
                                  0.00251
                                                            650205.82
4291236.70
               0.00237
                 4291238.72
       650212.33
                                   0.00237
                                                            650218.31
4291240.52
               0.00236
       650224.69 4291242.51 0.00236
                                                            650232.67
4291245.31 0.00237
       650241.05
                 4291248.30
                                   0.00238
                                                            650249.22
4291250.89
              0.00239
       650256.60
                 4291253.68
                                   0.00241
                                                            650266.17
4291257.07 0.00243
       650206.35 4291276.22
                                  0.00255
                                                            650208.54
```

4291273.23 0.00250		
650210.14 4291268.64	0.00277	650212.33
4291264.65 0.00265	0.00277	030212.33
650235.26 4291286.19	0.00260	650236.66
4291283.00 0.00288		
650238.25 4291279.81	0.00279	650239.25
4291276.22 0.00271		
650239.65 4291273.03	0.00264	650256.40
4291291.97 0.00257	0.00248	650259.99
650258.00 4291286.79 4291279.81 0.00272	0.00248	650259.99
650260.59 4291272.43	0 00288	650263.78
4291266.05 0.00266		
649381.16 4290586.76	0.00175	649394.57
4290600.17 0.00183		
4290600.17 0.00183 649410.67 4290612.69	0.00187	649425.86
4290624.31 0.00189		
649417.82 4290633.25	0.00207	649410.67
4290643.08 0.00228		
649391.89 4290566.20	0.00149	649400.83
4290559.05 0.00141		
649406.20 4290552.79		649414.24
4290537.59 0.00122	0.00165	649444.64
649435.70 4290606.43		
4290599.28 0.00154 649449.11 4290591.23	0.00146	649458.05
4290584.08 0.00138	0.00146	649458.05
649458.05 4290643.98	0 00185	649468.77
4290628.78 0.00163	0.00103	045400.77
649481.29 4290618.95	0.00149	649497.38
4290607.32 0.00135	0.002.12	
649452.68 4290733.37	0.00355	649462.52
4290744.99 0.00361		
649473.24 4290753.04	0.00349	649487.55
4290761.98 0.00331		
649458.94 4290719.07	0.00299	649482.18
4290692.25 0.00215		
649496.49 4290676.16	0.00184	649494.70
4290750.36 0.00288	0.00222	640534 35
649510.79 4290725.33	0.00223	649531.35
4290701.19 0.00179 649512.58 4290658.28	0.00158	649505.43
4290620.73 0.00138	0.00138	043303.43
649581.89 4290816.00	0.00298	649595.63
4290822.01 0.00281	0.00230	0.13333.03
649605.89 4290832.53	0.00279	649616.82
4290841.57 0.00270		· · · ·
649599.29 4290800.42	0.00236	649604.66
4290787.90 0.00212		
649623.43 4290818.30	0.00223	649627.90

4290802.21 0.00199 649634.60 4290882.58	0.00288	649644.44
4290891.53 0.00273 649657.85 4290903.15	0.00256	649662.32
4290845.92 0.00191 649670.37 4290910.31	0.00239	649672.16
4290855.76 0.00186 649681.10 4290918.35	0.00231	649690.04
4290926.40 0.00227 649703.46 4290939.81		649686.47
4290867.38 0.00177 649698.09 4290813.73		649718.66
4290834.29 0.00136	0.00141	049/10.00
↑ *** AERMOD - VERSION 22112 *** ***	SAD LEG LAVOVER CNONSTRUCTION	ON EMTSSTONS -
UNMITIGATED *** 0	7/10/23	ON LHISSIONS -
*** AERMET - VERSION 19191 *** ***	7,10,23	
	4:19	
21.2	7.10	
PAGE	29	
*** MODELOPTs: RegDFAULT CONC ELE		
Hobelof 13. Regulatel Conc. Ele	V LEGICE ONDAIN ADS_C	
*** THE P	ERIOD (43680 HRS) AVERAGE CO	NCENTRATION
VALUES FOR SOURCE GROUP: ALL ***	1.125 (1.3000 1.11.5) 7.121.11.01 00	7.102.11.11.11.120.11
	DING SOURCE(S): L0000001	, L0000002
, L0000003 , L0000004 , L0000005		, 20000002
L0000006 , L0000007	-	, L0000010
, L0000011 , L0000012 , L0000013	•	, 10000010
L0000014 , L0000015		, L0000018
, L0000019 , L0000020 , L0000021	•	, 10000010
L0000022 , L0000023		, L0000026
, L0000027 , L0000028 ,		, 1000001
,, ,, ,, ,	,	
	*** DISCRETE CARTESIAN	RECEPTOR POINTS

	** CONC OF DPM IN MICRO	OGRAMS/M**3
**		
X-COORD (M) Y-COORD (M)	CONC	(-COORD (M)
Y-COORD (M) CONC		,
649741.01 4290850.39	0.00131	649763.37
4290863.80 0.00126		
649701.67 4290877.22	0.00169	649715.08
4290890.63 0.00166		
649732.07 4290904.94	0.00163	649910.92
4290991.68 0.00137		
649928.80 4291003.31	0.00141	649945.79
4291014.04 0.00145		

649962.79 4291022.98	0.00150	650053 10
4291107.93 0.00257	0.00130	030033.10
650064.73 4291089.15	0.00213	650085.30
4291104.35 0.00201 650070.09 4291118.66		
650070.09 4291118.66	0.00237	650083.51
4291131.18 0.00225		
650146.10 4291166.06	0.00185	650157.73
4291151.75 0.00168 650140.74 4291144.59	0.00173	650115 70
4291125.82 0.00182		
650113.91 4291149.07	0.00199	650178.30
4291183 94		
650190.82 4291167.85	0.00164	650434.94
4291167.85 0.00150 650417.06 4291189.31		
650417.06 4291189.31	0.00163	650401.86
4291217.03 0.00185	0.00165	650005 60
650207.81 4291177.68 4291183.05 0.00163	0.00165	650225.69
650240.89 4291188.41	0.00164	650258.78
4291195.57 0.00165		
650280.24 4291200.93	0.00166	650293.65
4291207.19 0.00170		
650315.11 4291215.24	0.00176	650333.89
4291220.60 0.00181		
650352.67 4291225.08	0.00186	650374.13
4291231.34 0.00195 650013.76 4291462.05	0.00190	640020 50
4291369.05 0.00283	0.00190	649930.59
649914.50 4291349.37	0.00306	649935.06
4291335.96 0.00378		
649907.34 4291317.18	0.00295	649919.86
4291361.00 0.00288		
649909.13 4291335.07	0.00331	649903.77
4291306.45 0.00307	0.00433	640044 04
649917.18 4291272.47	0.00422	649911.81
4291301.09 0.00336 649924.33 4291302.87	0 00367	650053.10
4291363.68 0.00175	0.00307	030033.10
650066.52 4291373.52	0.00227	650079.04
4291366.37 0.00229		
649216.78 4290755.24	0.01277	649667.26
4291204.25 0.00177		
649647.43 4291189.03	0.00178	649627.60
4291173.81 0.00180 649607.77 4291158.59	0 00194	640597 02
4291143.37 0.00192	0.00104	649587.93
649568.10 4291128.14	0.00199	649548.27
4291112.92 0.00207		
649528.43 4291097.70	0.00217	649508.60
4291082.48 0.00229		

649488.77 4291067.26	0.00240	649468.94
4291052.04 0.00247 649449.10 4291036.82	0.00248	649429.27
4291021.60 0.00248 649409.44 4291006.38 4290991.16 0.00241	0.00246	649389.61
649358.62 4290967.62 4290952.12 0.00233	0.00234	649339.01
649319.40 4290936.61		649299.79
649280.17 4290905.61		649260.56
649240.95 4290874.60		649221.34
649201.72 4290843.59 4290828.09 0.00495	0.00383	649182.11
649158.28 4290816.10 4291223.82 0.00172	0.00604	649684.20
649247.52 4290740.02 4290769.65 0.00877		649225.72
649245.57 4290784.86 4290800.06 0.00456	0.00580	649265.41
<pre>★ *** AERMOD - VERSION 22112 *** UNMITIGATED</pre>	07/10/23	NONSTRUCTION EMISSIONS -
***	21:24:19	
*** MODELOPTs: RegDFAULT CONC	PAGE 30 C ELEV FLGPOL URBAN	ADJ_U*
VALUES FOR SOURCE GROUP: ALL	THE PERIOD (43680 HRS) ***	
, L0000003 , L0000004 , L00	300005 ,	L0000001 , L0000002
, L0000011 , L0000012 , L00	000013 ,	, L0000009 , L0000010
, L0000019 , L0000020 , L00	000021 ,	, L0000017 , L0000018
10000007	000023 , L0000024 ,	, L0000025 , L0000026
***	*** DISCRETE	CARTESIAN RECEPTOR POINTS
	** CONC OF DPM	IN MICROGRAMS/M**3
**	CONC	V (000D (W)
X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)

649285.25 4290815.27	0.00409	649305.10
4290830.48 0.00393 649324.94 4290845.68		
649324.94 4290845.68 4290860.89 0.00387	0.00388	649344.78
649364.63 4290876.10	0.00386	649384.47
4290891.31 0.00389 649404.31 4290906.51	0.00401	649424.16
4290921.72 0.00431		
649444.00 4290936.93 4290952.13 0.00480		
649483.69 4290967.34 4290982.55 0.00482		649503.53
649523.37 4290997.75	0.00450	649543.21
4291012.96 0.00405 649563.06 4291028.17	0 00368	649582.90
4291043.37 0.00343		047302.70
649602.74 4291058.58 4291073.79 0.00316	0.00326	649622.59
649642.43 4291088.99	0.00310	649662.27
4291104.20 0.00305 649682.12 4291119.41	0.00305	649701.96
4291134.62 0.00306		
649673.19 4291162.96 4291147.75 0.00222		649653.34
649633.50 4291132.55 4291117.34 0.00232	0.00226	649613.66
649593.81 4291102.13	0.00239	649573.97
4291086.92 0.00249 649554.13 4291071.72	0.00263	649534.28
4291056.51 0.00281		
649514.44 4291041.30 4291026.10 0.00317	0.00301	649494.60
649474.75 4291010.89	0.00326	649454.91
4290995.68 0.00325 649435.07 4290980.48	0.00319	649415.22
4290965.27 0.00309 649395.38 4290950.06	0.0000	640275 54
4290934.86 0.00290		649375.54
649355.70 4290919.65 4290904.44 0.00287	0.00287	649335.85
649316.01 4290889.24	0.00290	649296.17
4290874.03 0.00295 649276.32 4290858.82	0.00307	649256.48
4290843.61 0.00335		
649236.64 4290828.41 4290813.20 0.00499	0.00390	649216.79
649185.13 4290793.92	0.00803	649699.43
4291179.00 0.00212 ↑ *** AERMOD - VERSION 22112 ***	*** 3RD LEG LAYOVER CNO	ONSTRUCTION EMISSIONS -

PAGE 31

AVERAGE CONC

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43680

RECEPTOR (XR, YR,

HRS) RESULTS ***

GROUP ID

** CONC OF DPM IN MICROGRAMS/M**3

**

NETWORK

ZELEV, Z	ZELEV, ZHILL, ZFLAG) OF TYPE GRID-ID							
		-						
ALL	1ST HIGHEST VALUE IS	0.01277 AT (649216.78,	4290755.24,				
49.77,	49.77, 0.00) DC							
	2ND HIGHEST VALUE IS	0.01112 AT (649247.52,	4290740.02,				
49.72,	49.72, 0.00) DC							
	3RD HIGHEST VALUE IS	0.00877 AT (649225.72,	4290769.65,				
49.99,	49.99, 0.00) DC							
	4TH HIGHEST VALUE IS	0.00803 AT (649185.13,	4290793.92,				
50.69,	- · · · · · · · · · · · · · · · · · · ·							
	5TH HIGHEST VALUE IS	0.00604 AT (649158.28,	4290816.10,				
51.08,	- · · · · · · · · · · · · · · · · · · ·			4000704 05				
50.06	6TH HIGHEST VALUE IS	0.00580 AT (649245.5/,	4290/84.86,				
50.06,	50.06, 0.00) DC	0 00400 47 /	640046 70	4200042 20				
F1 60	7TH HIGHEST VALUE IS	0.00499 AT (649216.79,	4290813.20,				
51.60,	51.60, 0.00) DC	0 00405 AT /	C40102 11	4200020 00				
F1 40	8TH HIGHEST VALUE IS	0.00495 AT (649182.11,	4290828.09,				
51.49,	51.49, 0.00) DC 9TH HIGHEST VALUE IS	0 00490 AT /	640492 60	4200067 24				
F1 16	51.16, 0.00) DC	0.00489 AT (049483.09,	4290967.34,				
51.16,	10TH HIGHEST VALUE IS	0.00482 AT (640502 52	4200092 EE				
51 21	51.21, 0.00) DC	0.00402 AT (U49303.33,	4230302.33,				
و ۲۰۷۱	31.21, 0.00) DC							

*** RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

*** 21:24:19

PAGE 32

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 30 Warning Message(s)
A Total of 996 Informational Message(s)
A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

****** FATAL ERROR MESSAGES ******

*** NONE ***

	******	WARNING	MESSAGES	***	*****					
S0	W320 QS	690	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	691	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	692	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	694	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	695	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	696	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	697	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	698	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	699	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	702	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	703	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320 QS	704	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
S0	W320	705	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter

	QS									
SO W	1320 QS	706	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	_	707	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	_	708	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	•	711	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	_	712	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	_	715	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	-	716	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	1320	717	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W		718	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	QS 1320 QS	721	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	-	722	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	_	723	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	-	724	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	-	725	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
SO W	-	726	VPARM:	Input	Parameter	May	Be	Out-of-Range	for	Parameter
ME W	1186	752	MEOPEN:	THRESI	H_1MIN 1-m	in AS	50S	wind speed t	hresl	nold used
ME W	0.50 187	752	MEOPEN:	ADJ_U	* Option fo	or St	tab]	le Low Winds	used	in AERMET

^{***} AERMOD Finishes Successfully ***

```
** Lakes Environmental AERMOD MPI
**
**************
** AERMOD INPUT PRODUCED BY:
** AERMOD VIEW VER. 11.2.0
** LAKES ENVIRONMENTAL SOFTWARE INC.
** DATE: 7/12/2023
** FILE: D:\DOCUMENTS\ROSEVILLE TO SACRAMENTO THIRD RAIL\2023 UPDATE\AERMOD LAYOVER
OPERATE\AERMOD LAYOVER OPERATE.ADI
***********
**
**
*************
** AERMOD CONTROL PATHWAY
************
**
**
CO STARTING
  TITLEONE 3RD LEG LAYOVER OPERATIONAL EMISSIONS
  MODELOPT DFAULT CONC
  AVERTIME PERIOD
  URBANOPT 2500000 SACREMENTO_-ROSEVILLE-ARDEN-ARCADE_MSA
  POLLUTID DPM
  FLAGPOLE 1.80
  RUNORNOT RUN
  ERRORFIL "AERMOD LAYOVER OPERATE.ERR"
CO FINISHED
**
************
** AERMOD SOURCE PATHWAY
************
**
**
SO STARTING
** SOURCE LOCATION **
** SOURCE ID - TYPE - X COORD. - Y COORD. **
** ______
** LINE SOURCE REPRESENTED BY SEPARATED VOLUME SOURCES (2W)
** LINE VOLUME SOURCE ID = SLINE1
** DESCRSRC MOVING LOCOMOTIVE EMISSIONS DAYTIME
** PREFIX
** LENGTH OF SIDE = 12.00
** CONFIGURATION = SEPARATED 2W
** EMISSION RATE = 0.000567
** ELEVATED
** VERTICAL DIMENSION = 11.30
** SZINIT = 2.63
** NODES = 11
```

```
** 649071.104, 4290497.431, 49.44, 5.65, 11.16
** 649268.354, 4290673.357, 49.69, 5.65, 11.16
** 649502.922, 4290855.947, 50.56, 5.65, 11.16
** 649722.830, 4291029.208, 51.99, 5.65, 11.16
** 649941.405, 4291199.803, 53.13, 5.65, 11.16
** 650057.356, 4291270.440, 53.57, 5.65, 11.16
** 650169.309, 4291326.416, 53.85, 5.65, 11.16
** 650298.589, 4291367.732, 53.97, 5.65, 11.16
** 650402.545, 4291391.722, 53.68, 5.65, 11.16
** 650519.829, 4291403.717, 53.88, 5.65, 11.16
** 650635.780, 4291414.379, 53.77, 5.65, 11.16
** ______.
   LOCATION L0000001
                         VOLUME
                                  649075.581 4290501.424 49.45
   LOCATION L0000002
                         VOLUME
                                  649093.492 4290517.399 49.47
   LOCATION L0000003
                         VOLUME
                                  649111.403 4290533.374 49.49
   LOCATION L0000004
                         VOLUME
                                  649129.315 4290549.349 49.51
   LOCATION L0000005
                         VOLUME
                                  649147.226 4290565.323 49.54
                                  649165.137 4290581.298 49.56
   LOCATION L0000006
                         VOLUME
   LOCATION L0000007
                         VOLUME
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                                  649200.959 4290613.248 49.60
   LOCATION L0000008
                         VOLUME
   LOCATION L0000009
                         VOLUME
                                  649218.870 4290629.222 49.63
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   LOCATION L0000011
                         VOLUME
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   LOCATION L0000012
                         VOLUME
   LOCATION L0000013
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                         VOLUME
   LOCATION L0000014
                         VOLUME
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   LOCATION L0000015
                         VOLUME
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   LOCATION L0000016
                         VOLUME
                                  649348.602 4290735.822 49.99
   LOCATION L0000017
                         VOLUME
                                  649367.540 4290750.564 50.06
   LOCATION L0000018
                                  649386.479 4290765.306 50.13
                         VOLUME
                                  649405.418 4290780.048 50.20
   LOCATION L0000019
                         VOLUME
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   LOCATION L0000020
                         VOLUME
   LOCATION L0000021
                         VOLUME
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                         VOLUME
   LOCATION L0000026
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   LOCATION L0000027
                         VOLUME
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   LOCATION L0000029
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                         VOLUME
   LOCATION L0000031
                         VOLUME
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                         VOLUME
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   LOCATION L0000033
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   LOCATION L0000034
                         VOLUME
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                         VOLUME
   LOCATION L0000036
                         VOLUME
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                                  649745.278 4291046.728 52.11
   LOCATION L0000037
                         VOLUME
   LOCATION L0000038
                         VOLUME
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                         VOLUME
  LOCATION L0000041
                         VOLUME
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  LOCATION L0000042
                         VOLUME
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  LOCATION L0000043
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                         VOLUME
  LOCATION L0000044
                         VOLUME
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  LOCATION L0000045
                         VOLUME
  LOCATION L0000046
                         VOLUME
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  LOCATION L0000048
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  LOCATION L0000049
                         VOLUME
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                                  649995.384 4291232.687 53.33
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  LOCATION L0000051
                         VOLUME
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                         VOLUME
  LOCATION L0000055
                         VOLUME
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  LOCATION L0000056
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                         VOLUME
                                  650142.715 4291313.119 53.78
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  LOCATION L0000058
                         VOLUME
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  LOCATION L0000059
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                         VOLUME
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  LOCATION L0000061
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                         VOLUME
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                                  650301.069 4291368.305 53.96
  LOCATION L0000065
                         VOLUME
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  LOCATION L0000066
                         VOLUME
                                  650347.840 4291379.098 53.83
  LOCATION L0000067
                         VOLUME
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  LOCATION L0000068
                         VOLUME
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  LOCATION L0000069
                         VOLUME
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  LOCATION L0000070
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                         VOLUME
  LOCATION L0000071
                         VOLUME
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  LOCATION L0000072
                         VOLUME
                                  650489.947 4291400.661 53.83
  LOCATION L0000073
                         VOLUME
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                                  650537.715 4291405.362 53.86
  LOCATION L0000074
                         VOLUME
  LOCATION L0000075
                         VOLUME
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  LOCATION L0000076
                         VOLUME
                                  650585.514 4291409.757 53.82
  LOCATION L0000077
                         VOLUME
                                  650609.413 4291411.955 53.80
  LOCATION L0000078
                         VOLUME
                                  650633.312 4291414.152 53.77
** END OF LINE VOLUME SOURCE ID = SLINE1
  LOCATION TRACK1
                                    650194.910 4291379.390
                                                                   55.010
                         POINT
** DESCRSRC IDLE TRAIN AT LAYOVER TRACK 1
  LOCATION TRACK2
                         POINT
                                    650197.957
                                                 4291369.732
                                                                   54.530
** DESCRSRC IDLE TRAIN AT LAYOVER TRACK 2
   LOCATION TRACK3
                         POINT
                                    650200.500
                                                                   54.260
                                                 4291360.080
** DESCRSRC IDLE TRAIN AT LAYOVER TRACK 3
   LOCATION TRACK4
                         POINT
                                     650203.040
                                                 4291351.440
                                                                   54.120
** DESCRSRC IDLE TRAIN AT LAYOVER TRACK 4
   LOCATION STCK5
                         POINT
                                    650017.560 4291261.500
                                                                   52.980
```

- ** DESCRSRC SMALL BACKUP 30KW DIESEL GENERATOR
- ** SOURCE PARAMETERS **
- ** LINE VOLUME SOURCE ID = SLINE1

**	LINE VOLU	IME SOURCE	ID =	SLINE1			
	SRCPARAM	L0000001	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000002	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000003	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000004	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000005	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000006	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000007	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000008	(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000009	(0.000007269	5.65	11.16	2.63
	SRCPARAM		(0.000007269	5.65	11.16	2.63
	SRCPARAM	L0000011	(0.000007269	5.65	11.16	2.63
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	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
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	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
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	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM SRCPARAM			0.000007269 0.000007269	5.65 5.65	11.16 11.16	2.63 2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
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	SRCPARAM			0.000007269	5.65	11.16	2.63
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	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
	SRCPARAM			0.000007269	5.65	11.16	2.63
	J. C. ARAM	_00000-7			J. 0J		2.03

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SRCPARAM L0000048
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  SRCPARAM L0000050
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  SRCPARAM L0000051
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  SRCPARAM L0000055
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  SRCPARAM L0000056
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  SRCPARAM L0000058
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  SRCPARAM L0000060
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  SRCPARAM L0000062
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  SRCPARAM L0000064
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  SRCPARAM L0000073
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  SRCPARAM L0000077
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  SRCPARAM L0000078
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                                                  11.16
                                                             2.63
  ______
  SRCPARAM TRACK1
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                         1.68E-06
                                      4.600
                                              739.000
                                                                    0.127
  SRCPARAM TRACK2
                         1.68E-06
                                      4.600
                                              739.000
                                                           90.8
                                                                    0.127
  SRCPARAM TRACK3
                         1.68E-06
                                      4.600
                                              739.000
                                                           90.8
                                                                    0.127
  SRCPARAM TRACK4
                         1.68E-06
                                      4.600
                                              739.000
                                                           90.8
                                                                    0.127
  SRCPARAM STCK5
                         2.49E-06
                                      6.100
                                              644.000
                                                           17.8
                                                                    0.305
  URBANSRC ALL
  SRCGROUP ALL
SO FINISHED
**
**********
** AERMOD RECEPTOR PATHWAY
************
**
**
RE STARTING
  INCLUDED "AERMOD LAYOVER OPERATE.ROU"
RE FINISHED
```

```
*************
** AERMOD METEOROLOGY PATHWAY
**************
**
ME STARTING
  SURFFILE "..\..\MET DATA\14-18.SFC"
  PROFFILE "..\..\MET DATA\14-18.PFL"
  SURFDATA 93225 2014
  UAIRDATA 23230 2014 OAKLAND/WSO AP
  PROFBASE 8.0 METERS
ME FINISHED
***********
** AERMOD OUTPUT PATHWAY
************
**
OU STARTING
** AUTO-GENERATED PLOTFILES
            PERIOD ALL "AERMOD LAYOVER OPERATE.AD\PE00GALL.PLT" 31
  PLOTFILE
  FILEFORM EXP
  SUMMFILE "AERMOD LAYOVER CONSTRUCT.SUM"
OU FINISHED
 *** Message Summary For AERMOD Model Setup ***
 ----- Summary of Total Messages -----
A Total of
                     0 Fatal Error Message(s)
A Total of
                     6 Warning Message(s)
A Total of
                     0 Informational Message(s)
   ****** FATAL ERROR MESSAGES ******
             *** NONE ***
   *****
             WARNING MESSAGES
                               *****
SO W320
           231
                     PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320
            232
                     PPARM: Input Parameter May Be Out-of-Range for Parameter
       ٧S
SO W320
            233
                     PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
SO W320
            234
                     PPARM: Input Parameter May Be Out-of-Range for Parameter
       VS
ME W186
            260
                     MEOPEN: THRESH 1MIN 1-min ASOS wind speed threshold used
     0.50
```

********** *** SETUP Finishes Successfully *** *********** ★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS 07/12/23 *** AERMET - VERSION 19191 *** 12:48:12 PAGE 1 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U* *** MODELOPTs: *** MODEL SETUP OPTIONS SUMMARY *** ** Model Options Selected: * Model Uses Regulatory DEFAULT Options * Model Is Setup For Calculation of Average CONCentration Values. * NO GAS DEPOSITION Data Provided. * NO PARTICLE DEPOSITION Data Provided. * Model Uses NO DRY DEPLETION. DDPLETE = F * Model Uses NO WET DEPLETION. WETDPLT = F * Stack-tip Downwash. * Model Accounts for ELEVated Terrain Effects. * Use Calms Processing Routine. * Use Missing Data Processing Routine. * No Exponential Decay. * Model Uses URBAN Dispersion Algorithm for the SBL for 83 Source(s), 1 Urban Area(s): for Total of Urban Population = 2500000.0 ; Urban Roughness Length = 1.000 m * Urban Roughness Length of 1.0 Meter Used. * ADJ U* - Use ADJ U* option for SBL in AERMET * CCVR Sub - Meteorological data includes CCVR substitutions * TEMP_Sub - Meteorological data includes TEMP substitutions * Model Accepts FLAGPOLE Receptor . Heights. * The User Specified a Pollutant Type of: DPM **Model Calculates PERIOD Averages Only **This Run Includes: 83 Source(s); 1 Source Group(s); and 329 Receptor(s) with: 5 POINT(s), including

0 POINTCAP(s) and

78 VOLUME source(s)

and:

0 POINTHOR(s)

and: 0 AREA type source(s) 0 LINE source(s) and: and: 0 RLINE/RLINEXT source(s) and: 0 OPENPIT source(s) 0 BUOYANT LINE source(s) with a total of 0 line(s) and: and: 0 SWPOINT source(s) **Model Set To Continue RUNning After the Setup Testing. **The AERMET Input Meteorological Data Version Date: 19191 **Output Options Selected: Model Outputs Tables of PERIOD Averages by Receptor Model Outputs External File(s) of High Values for Plotting (PLOTFILE Model Outputs Separate Summary File of High Ranked Values (SUMMFILE NOTE: Option for EXPonential format used in formatted output result files (FILEFORM Keyword) **NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours m for Missing b for Both Calm and Missing Hours **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 8.00 ; Decay 0.000 ; Rot. Angle = Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07 = MICROGRAMS/M**3 Output Units **Approximate Storage Requirements of Model = 3.6 MB of RAM. **Input Runstream File: aermod.inp **Output Print File: aermod.out **Detailed Error/Message File: AERMOD LAYOVER OPERATE.ERR

AERMOD LAYOVER CONSTRUCT.SUM

★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS

07/12/23

*** AERMET - VERSION 19191 *** ***

**File for Summary of Results:

Keyword)

Keyword)

Hours

Coef. =

*** 12:48:12 PAGE 2

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

		***	POINT SO	JRCE DATA	***					
STACK STAC	NUMBER EMISSION RA		BASE	STACK	STACK					
STACK STAC SOURCE		CAP/ EMIS RATE) X Y	ELEV.	HEIGHT	TEMP.					
ID (M/SEC) (METE	CATS.	(METERS) (METERS) VARY BY	(METERS)	(METERS)	(DEG.K)					
TRACK1 90.80 0.13		650194.9 4291379.4	55.0	4.60	739.00					
TRACK2 90.80 0.13	0 0.16800E-05	650198.0 4291369.7	54.5	4.60	739.00					
TRACK3 90.80 0.13	0 0.16800E-05	650200.5 4291360.1	54.3	4.60	739.00					
TRACK4 90.80 0.13	0 0.16800E-05	650203.0 4291351.4	54.1	4.60	739.00					
STCK5 17.80 0.31	0 0.24900E-05	650017.6 4291261.5	53.0	6.10	644.00					
↑ *** AERMOD -	↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS *** 07/12/23									
*** AERMET -	VERSION 19191 *** ***									
*** MODELOPTs	: RegDFAULT CON	PAGE 3 C ELEV FLGPOL URB	AN ADJ_U	*						
		***	VOLUME S	OURCE DATA	4 ***					
TAITT LIDDAN	NUMBER EMISSION RATE	TE	BASE	RELEASE	INIT.					
	· ·) X Y	ELEV.	HEIGHT	SY					
	SCALAR VARY CATS. BY	(METERS) (METERS)	(METERS)	(METERS)	(METERS)					
L0000001	0 0.72690E-05	649075.6 4290501.4	49.4	5.65	11.16					
2.63 YES L0000002	0 0.72690E-05	649093.5 4290517.4	49.5	5.65	11.16					
2.63 YES L0000003	0 0.72690E-05	649111.4 4290533.4	49.5	5.65	11.16					

2 62 1/56						
2.63 YES L0000004	0	0.72690E-05	649129.3 4290549.3	49.5	5.65	11.16
2.63 YES L0000005	0	0.72690E-05	649147.2 4290565.3	49.5	5.65	11.16
2.63 YES L0000006	0	0.72690E-05	649165.1 4290581.3	49.6	5.65	11.16
2.63 YES L0000007	0	0.72690E-05	649183.0 4290597.3	49.6	5.65	11.16
2.63 YES L0000008	0	0.72690E-05	649201.0 4290613.2	49.6	5.65	11.16
2.63 YES L0000009	0	0.72690E-05	649218.9 4290629.2	49.6	5.65	11.16
2.63 YES L0000010	0	0.72690E-05	649236.8 4290645.2	49.6	5.65	11.16
2.63 YES L0000011	0	0.72690E-05	649254.7 4290661.2	49.7	5.65	11.16
2.63 YES L0000012	0	0.72690E-05	649272.8 4290676.9	49.7	5.65	11.16
2.63 YES L0000013	0	0.72690E-05	649291.8 4290691.6	49.8	5.65	11.16
2.63 YES L0000014	0	0.72690E-05	649310.7 4290706.3	49.8	5.65	11.16
2.63 YES L0000015	0	0.72690E-05	649329.7 4290721.1	49.9	5.65	11.16
2.63 YES L0000016	0	0.72690E-05	649348.6 4290735.8	50.0	5.65	11.16
2.63 YES L0000017	0	0.72690E-05	649367.5 4290750.6	50.1	5.65	11.16
2.63 YES L0000018	0	0.72690E-05	649386.5 4290765.3	50.1	5.65	11.16
2.63 YES L0000019	0	0.72690E-05	649405.4 4290780.0	50.2	5.65	11.16
2.63 YES L0000020	0	0.72690E-05	649424.4 4290794.8	50.3	5.65	11.16
2.63 YES L0000021	0	0.72690E-05	649443.3 4290809.5	50.3	5.65	11.16
2.63 YES L0000022	0	0.72690E-05	649462.2 4290824.3	50.4	5.65	11.16
2.63 YES L0000023	0	0.72690E-05	649481.2 4290839.0	50.5	5.65	11.16
2.63 YES L0000024	0	0.72690E-05	649500.1 4290853.8	50.5	5.65	11.16
2.63 YES L0000025	0	0.72690E-05	649519.0 4290868.6	50.7	5.65	11.16
2.63 YES L0000026	0	0.72690E-05	649537.8 4290883.4	50.8	5.65	11.16
2.63 YES L0000027	0	0.72690E-05	649556.7 4290898.3	50.9	5.65	11.16
2.63 YES L0000028	0	0.72690E-05	649575.5 4290913.2	51.0	5.65	11.16

2.63 YES							
L0000029 2.63 YES	0	0.72690E-05	649594.4	4290928.0	51.1	5.65	11.16
L0000030 2.63 YES	0	0.72690E-05	649613.2	4290942.9	51.3	5.65	11.16
L0000031	0	0.72690E-05	649632.1	4290957.7	51.4	5.65	11.16
2.63 YES L0000032	0	0.72690E-05	649650.9	4290972.6	51.5	5.65	11.16
2.63 YES L0000033	0	0.72690E-05	649669.8	4290987.4	51.6	5.65	11.16
2.63 YES L0000034	0	0.72690E-05	649688.6	4291002.3	51.8	5.65	11.16
2.63 YES							
L0000035 2.63 YES	0	0.72690E-05		4291017.1	51.9	5.65	11.16
L0000036 2.63 YES	0	0.72690E-05	649726.4	4291032.0	52.0	5.65	11.16
L0000037 2.63 YES	0	0.72690E-05	649745.3	4291046.7	52.1	5.65	11.16
L0000038 2.63 YES	0	0.72690E-05	649764.2	4291061.5	52.2	5.65	11.16
L0000039	0	0.72690E-05	649783.1	4291076.3	52.3	5.65	11.16
2.63 YES L0000040	0	0.72690E-05	649802.0	4291091.0	52.4	5.65	11.16
2.63 YES ↑ *** AERMOD - \	/ERSIO	N 22112 *** ***		LEG LAYOVER	OPERATION	AL EMISS	IONS
*** AERMET - VE	RSION		07/12/2 *** 12:48:12	.3			
*** MODELOPTs:	Re	gDFAULT CONC	PAGE 4 ELEV FL	GPOL URBAN	ADJ_U*		
				*** V0	LUME SOUR	CE DATA	***

NUMBER EMISSION RATE INIT. URBAN EMISSION RATE SOURCE PART. (GRAMS/SEC) X Y ELEV. HEIGHT SY SZ SOURCE SCALAR VARY ID CATS. (METERS) (METERS) (METERS) (METERS) (METERS) BY L0000041 0 0.72690E-05 649821.0 4291105.8 52.5 5.65 11.16

L0000041 0 0.72690E-05 649821.0 4291105.8 52.5 5.65 11.16
2.63 YES
L0000042 0 0.72690E-05 649839.9 4291120.6 52.6 5.65 11.16
2.63 YES
L0000043 0 0.72690E-05 649858.8 4291135.3 52.7 5.65 11.16

2 62 1/56						
2.63 YES L0000044	0	0.72690E-05	649877.7 4291150.1	52.8	5.65	11.16
2.63 YES L0000045	0	0.72690E-05	649896.6 4291164.9	52.9	5.65	11.16
2.63 YES L0000046	0	0.72690E-05	649915.6 4291179.6	53.0	5.65	11.16
2.63 YES L0000047	0	0.72690E-05	649934.5 4291194.4	53.1	5.65	11.16
2.63 YES L0000048	0	0.72690E-05	649954.4 4291207.7	53.2	5.65	11.16
2.63 YES L0000049	0	0.72690E-05	649974.9 4291220.2	53.3	5.65	11.16
2.63 YES L0000050	0	0.72690E-05	649995.4 4291232.7	53.3	5.65	11.16
2.63 YES L0000051	0	0.72690E-05	650015.9 4291245.2	53.4	5.65	11.16
2.63 YES L0000052	0	0.72690E-05	650036.4 4291257.7	53.5	5.65	11.16
2.63 YES						
L0000053 2.63 YES	0	0.72690E-05	650056.9 4291270.1	53.6	5.65	11.16
L0000054 2.63 YES	0	0.72690E-05	650078.3 4291280.9	53.6	5.65	11.16
L0000055 2.63 YES	0	0.72690E-05	650099.8 4291291.7	53.7	5.65	11.16
L0000056 2.63 YES	0	0.72690E-05	650121.2 4291302.4	53.7	5.65	11.16
L0000057 2.63 YES	0	0.72690E-05	650142.7 4291313.1	53.8	5.65	11.16
L0000058 2.63 YES	0	0.72690E-05	650164.2 4291323.9	53.8	5.65	11.16
L0000059 2.63 YES	0	0.72690E-05	650186.7 4291332.0	53.9	5.65	11.16
L0000060 2.63 YES	0	0.72690E-05	650209.6 4291339.3	53.9	5.65	11.16
L0000061	0	0.72690E-05	650232.4 4291346.6	53.9	5.65	11.16
L0000062	0	0.72690E-05	650255.3 4291353.9	53.9	5.65	11.16
2.63 YES L0000063	0	0.72690E-05	650278.2 4291361.2	53.9	5.65	11.16
2.63 YES L0000064	0	0.72690E-05	650301.1 4291368.3	54.0	5.65	11.16
2.63 YES L0000065	0	0.72690E-05	650324.5 4291373.7	53.9	5.65	11.16
2.63 YES L0000066	0	0.72690E-05	650347.8 4291379.1	53.8	5.65	11.16
2.63 YES L0000067	0	0.72690E-05	650371.2 4291384.5	53.8	5.65	11.16
2.63 YES L0000068	0	0.72690E-05	650394.6 4291389.9	53.7	5.65	11.16

2.63 YES								
L0000069	0 (0.72690E-05	650418.3	4291393.3	53.7	5.65	11.16	
2.63 YES	-							
L0000070	0	0.72690E-05	650442.2	4291395.8	53.8	5.65	11.16	
2.63 YES								
L0000071	0	0.72690E-05	650466.1	4291398.2	53.8	5.65	11.16	
2.63 YES								
L0000072	0	0.72690E-05	650489.9	4291400.7	53.8	5.65	11.16	
2.63 YES								
L0000073	0	0.72690E-05	650513.8	4291403.1	53.9	5.65	11.16	
2.63 YES		0 706005 05	650537.7	4204405 4	53 0		44.46	
L0000074	0	0.72690E-05	65053/./	4291405.4	53.9	5.65	11.16	
2.63 YES	0	0 736005 05	CEOEC1 C	4201407 6	F2 0	Г (Г	11 16	
L0000075	0	0.72690E-05	650561.6	4291407.6	53.8	5.65	11.16	
2.63 YES L0000076	0	0.72690E-05	CEDESE E	42014 <u>0</u> 0 0	E2 0	5.65	11.16	
2.63 YES	0	0.72090E-03	6,66666	4231403.0	33.0	3.03	11.10	
L0000077	0	0.72690E-05	650609 1	1291112 A	53 8	5.65	11.16	
2.63 YES	0	0.720J0L-0J	030003.4	4231412.0	55.6	5.05	11.10	
	0	0.72690E-05	650633.3	4291414.2	53.8	5.65	11.16	
2.63 YES		01,20302 03	030033.3		33.0	3.03		
↑ *** AERMOD - V	ERSION	22112 ***	*** 3RD	LEG LAYOVER	OPERATION	AL EMISS	IONS	
			07/12/2					
*** AERMET - VEI	RSION							
		***	12:48:12					
			PAGE 5					
*** MODELOPTs:	Regl	DFAULT CONC	ELEV FLO	GPOL URBAN	ADJ_U*			
de de de			**	** SOURCE ID	s DEFININ	G SOURCE	GROUPS	

CDCCDOUD TD					COURCE	TD -		
SRCGROUP ID					SOURCE			
ALL L000	00001	, L0000002	2 , L000	00003 1	0000004	, L000	2005	
	00001	•	30	, L	000004	, Leee	6662	,
, 100	000007	, 1000000	,					
1 000	00009	, L000001	, L000	00011 . I	0000012	, L000	0013	,
	000015	•	•	, -	0000011	, 2000	0023	,
, 100		,	,					
L000	00017	, L0000018	, L000	00019 , L	0000020	, L000	0021	,
L0000022 , L00	000023	•	-	•		•		•
-			-					
L000	00025	, L0000026	5 , L000	00027 , L	0000028	, L000	0029	,
L0000030 , L00	000031	, L000003	32,					

L0000033 , L0000034 , L0000035 , L0000036

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            TRACK3
↑ *** AERMOD - VERSION 22112 ***
                                    *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                    07/12/23
*** AERMET - VERSION 19191 ***
                                  ***
                                  12:48:12
                                  PAGE
                                         6
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
 *** MODELOPTs:
                                         *** SOURCE IDS DEFINED AS URBAN SOURCES
 URBAN ID
            URBAN POP
                                                         SOURCE IDs
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             2500000.
                       L0000001
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            TRACK3
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♠ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                        ***
                                  07/12/23
                                 ***
*** AERMET - VERSION 19191 ***
                      ***
                                 12:48:12
                                 PAGE
                                       7
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
*** MODELOPTs:
                                      *** GRIDDED RECEPTOR NETWORK SUMMARY ***
                                *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                        *** X-COORDINATES OF GRID ***
                                                 (METERS)
      649742.2, 649754.2, 649766.2, 649778.2, 649790.2, 649802.2, 649814.2,
649826.2, 649838.2, 649850.2,
      649862.2,
                                        *** Y-COORDINATES OF GRID ***
                                                 (METERS)
     4291240.0, 4291257.0, 4291274.0, 4291291.0, 4291308.0, 4291325.0, 4291342.0,
4291359.0, 4291376.0, 4291393.0,
     4291410.0,
                                *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
↑ *** AERMOD - VERSION 22112 ***
                                  07/12/23
*** AERMET - VERSION 19191 ***
                                 12:48:12
                                 PAGE
                                       8
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
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* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS) 6 649802.20 649814.	49742.20 649 20 649826.20	6498	649766.20 6 38.20	X-COORD (M 549778.20 6	ETERS) 49790.20
4291409.99 54.90 54.	90 55 00	4	55 00		
4291392.99	54.70	54.80	54.80	54.80	54.80
4291392.99 54.80 54. 4291375.99 54.90 54.	54.80 90 54.90	54.90	54.90 55 00	54.90	54.90
4291358.99 54.90 54.	54.80 90 54.90	54.90	54.90 55.00	54.90	54.90
4291341.99 55.00 55.	54.80 00 54.90	54.80	54.90 54.90	55.00	55.00
4291324.99 55.30 55. 4291307.99	54.80 20 55.00	54.90	55.20 54.90	55.40	55.40
4291307.99 55.30 55.	55.00 60 55.60	54.90	55.10 55.40	55.20	55.20
4291290.99	56.10 80 56.10	56.20	56.50		
4291273.99 57.90	57.10 10 55.80	57.80	57.90 55.30	58.00	58.00
4291256.99 58.00 57.	57.70 00 55.60	58.00	57.90 55.00	58.00	58.00
4291239.99 57.20 56.	57.60 50 55.00	57.60	57.40 54.00	57.30	57.30
↑ *** AERMOD - VERSI	ON 22112 *** ***	*** 3RD	LEG LAYOVER OP	ERATIONAL EMIS	SIONS
*** AERMET - VERSIO	N 19191 *** ***	***			
*** MODELOPTs: R		PAGE 9 ELEV F)J_U*	
GRIDCART ***	*	*** NETWO	RK ID: ROSEHIGH	; NETWORK TY	PE:
			* ELEVATION	N HEIGHTS IN M	ETERS *
Y-COORD (METERS) 6	49850.20 649	9862.20		X-COORD (M	ETERS)

4291409.99	55.10	55.10
4291392.99	55.10	55.20
4291375.99	55.20	55.20
4291358.99	55.10	55.20
4291341.99	55.00	55.10
4291324.99	54.90	54.80
4291307.99	55.00	54.60
4291290.99	55.10	54.60
4291273.99	55.10	54.50
4291256.99	54.90	54.20
4291239.99	53.90	53.70
*** AERMOD	- VERSION 22112 ***	*** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
	***	07/12/23
*** AERMET -	VERSION 19191 ***	***
	***	12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

Y-COORD

* HILL HEIGHT SCALES IN METERS *

X-COORD (METERS)

I - COOND	I					X-COUND	(ILLIENS)
(METERS)	6497	742.20 64	9754.20	6497	766.20	649778.20	649790.20
649802.20	•						
					_		
4291409.99		54.60	54.80		54.90	54.80	54.90
54.90	54.90	55.0	0	55.00			
4291392.99						54.80	54.80
54.80	54.90	54.9	0	55.00			
4291375.99		54.80				54.90	54.90
54.90	54.90	54.9	0	55.00			
4291358.99		54.80	54.90		54.90	54.90	54.90
54.90	54.90	54.9	0	55.00			
4291341.99		54.80	54.80		54.90	55.00	55.00
55.00	55.00	54.9	0	54.90			
4291324.99		54.80	54.90		55.20	55.40	55.40
55.30	55.20	55.0	0	54.90			
4291307.99		55.00	54.90		57.90	57.90	57.90
57.90	55.60	55.6	0	55.40			
4291290.99		56.10	57.50		57.90	57.90	57.90
57.90	56.80	56.1	.0	55.50			
4291273.99		57.40	57.80		57.90	58.00	58.00
57.90	57.80	57.8	0	55.30			
4291256.99		57.70	58.00		57.90	58.00	58.00

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58.00 57.00 57.80 55.00
 4291239.99 | 57.60 57.40 57.30 57.30
   57.50
             57.30 58.00 58.00
↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                             07/12/23
*** AERMET - VERSION 19191 ***
                              12:48:12
                              PAGE 11
 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                             *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                         * HILL HEIGHT SCALES IN METERS *
   Y-COORD |
                                                     X-COORD (METERS)
   (METERS)
               649850.20 649862.20
 4291409.99
                  55.10
                              55.10
 4291392.99
                  55.10
                              55.20
 4291375.99
                  55.20
                              55.20
 4291358.99
                  55.10
                              55.20
 4291341.99
                  55.00
                              55.10
                  54.90
 4291324.99
                              54.80
 4291307.99
                  55.00
                              54.60
 4291290.99
                  55.10
                             54.60
                  55.10
                             54.50
 4291273.99
 4291256.99
                  54.90
                             54.20
 4291239.99
                   53.90
                              53.70
♠ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                              07/12/23
*** AERMET - VERSION 19191 *** ***
                    ***
                              12:48:12
                              PAGE 12
*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                             *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                      * RECEPTOR FLAGPOLE HEIGHTS IN METERS *
   Y-COORD |
                                                     X-COORD (METERS)
   (METERS) | 649742.20 649754.20 649766.20 649778.20 649790.20
           649814.20
                      649826.20
                                 649838.20
```

	4291409.99		1.80		1.80		1.80	1.80	1.80
	1.80	1.80		1.80		1.80)		
	4291392.99		1.80		1.80		1.80	1.80	1.80
	1.80	1.80		1.80		1.80)		
	4291375.99		1.80		1.80		1.80	1.80	1.80
	1.80	1.80		1.80		1.80)		
	4291358.99		1.80		1.80		1.80	1.80	1.80
	1.80	1.80		1.80		1.80)		
	4291341.99				1.80		1.80	1.80	1.80
	1.80			1.80)		
	4291324.99		1.80		1.80		1.80	1.80	1.80
	1.80	1.80		1.80		1.80)		
	4291307.99		1.80		1.80		1.80	1.80	1.80
	1.80	_)		
	4291290.99	•						1.80	1.80
	1.80)		
	4291273.99	•	1.80					1.80	1.80
	1.80)		
	4291256.99	•	1.80					1.80	1.80
	1.80)		
	4291239.99	•			1.80			1.80	1.80
	1.80								
♠	*** AERMOD	- VERSION					LAYOVER	OPERATIONAL	EMISSIONS
					07/12/2				
*	*** AEDMET	VEDETON	10101	***	к ж ж				

*** AERMET - VERSION 19191 *** ***

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

1.80

*** NETWORK ID: ROSEHIGH; NETWORK TYPE:

GRIDCART ***

4291273.99

* RECEPTOR FLAGPOLE HEIGHTS IN METERS *

Y-COORD (METERS)	649850.20	649862.20	X-COORD (METERS)
4291409.99	1.80	1.80	
4291392.99	1.80	1.80	
4291375.99	1.80	1.80	
4291358.99	1.80	1.80	
4291341.99	1.80	1.80	
4291324.99	1.80	1.80	
4291307.99	1.80	1.80	
4291290.99	1.80	1.80	

1.80

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

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4291257.1, 53.7, 53.7, 53.7, (650206.4, 4291276.2,	53.4,	53.4,	1.8);	(650208.5,
4291273.2, 53.4, 53.4, (650210.1, 4291268.6,	53.5,	1.8); 53.5,	1.8);	(650212.3,
4291264.6, 53.6, 53.6, (650235.3, 4291286.2,	53.6,	53.6,	1.8);	(650236.7,
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4290624.3, 50.6, 50.6, (649417.8, 4290633.2,	50.5,	50.5,	1.8);	(649410.7,
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★ *** AERMOD - VERSION 22112 ***
                                   *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                    07/12/23
                                  ***
*** AERMET - VERSION 19191 ***
                                  12:48:12
                                  PAGE 15
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)
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4290828.1,
                                 51.1,
                                             51.1,
                                                                       (649684.2,
     ( 649158.3, 4290816.1,
                                                         1.8);
                           55.4,
4291223.8,
               55.4,
                                       1.8);
                                 49.7,
     (649247.5, 4290740.0,
                                             49.7,
                                                         0.0);
                                                                       (649225.7,
                           50.0,
                                       0.0);
4290769.6,
                50.0,
                                 50.1,
                                             50.1,
     (649245.6, 4290784.9,
                                                         0.0);
                                                                       (649265.4,
                           50.0,
                                       0.0);
4290800.1,
                50.0,
                                 50.0,
                                             50.0,
                                                         0.0);
     (649285.2, 4290815.3,
                                                                       (649305.1,
                           50.0,
                                       0.0);
                50.0,
4290830.5,
     (649324.9, 4290845.7,
                                 50.0,
                                                         0.0);
                                                                       (649344.8,
                                             50.0,
               49.9,
                           49.9,
                                       0.0);
4290860.9,
                                 50.0,
                                             50.0,
                                                                       (649384.5,
     (649364.6, 4290876.1,
                                                         0.0);
                           50.1,
                                       0.0);
                50.1,
4290891.3,
     (649404.3, 4290906.5,
                                 50.1,
                                                                       (649424.2,
                                             50.1,
                                                         0.0);
                           50.5,
                                       0.0);
4290921.7,
                50.5,
     (649444.0, 4290936.9,
                                 51.0,
                                             51.0,
                                                         0.0);
                                                                       (649463.8,
                           51.0,
                                       0.0);
                51.0,
4290952.1,
                                 51.2,
     (649483.7, 4290967.3,
                                             51.2,
                                                         0.0);
                                                                       (649503.5,
4290982.5,
                                        0.0);
                51.2,
                           51.2,
                                 51.1,
     (649523.4, 4290997.8,
                                             51.1,
                                                         0.0);
                                                                       (649543.2,
                                       0.0);
4291013.0,
                51.3,
                          51.3,
```

```
( 649563.1, 4291028.2,
                                51.4,
                                                       0.0);
                                                                    (649582.9,
                                           51.4,
4291043.4,
                          51.6,
                                      0.0);
               51.6,
     (649602.7, 4291058.6,
                                51.8,
                                           51.8,
                                                       0.0);
                                                                     (649622.6,
                         52.2,
                                      0.0);
4291073.8,
              52.2,
                                52.6,
     (649642.4, 4291089.0,
                                                       0.0);
                                                                     (649662.3,
                                           52.6,
                         53.5,
4291104.2,
               53.5,
                                      0.0);
↑ *** AERMOD - VERSION 22112 ***
                                  *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                    07/12/23
*** AERMET - VERSION 19191 ***
                                  12:48:12
                                  PAGE 16
*** MODELOPTs:
                  RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*
                                            *** DISCRETE CARTESIAN RECEPTORS ***
                                          (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                          (METERS)
     (649682.1, 4291119.4,
                                53.3,
                                           53.3,
                                                       0.0);
                                                                     (649702.0,
                      53.5,
4291134.6,
                                      0.0);
               53.5,
                                55.2,
     (649673.2, 4291163.0,
                                           55.2,
                                                       0.0);
                                                                     (649653.3,
                         54.5,
4291147.8,
               54.5,
                                      0.0);
     ( 649633.5, 4291132.5,
                                53.7,
                                           53.7,
                                                       0.0);
                                                                     (649613.7,
                         52.9,
                                      0.0);
4291117.3,
               52.9,
     (649593.8, 4291102.1,
                                52.6,
                                                       0.0);
                                                                     (649574.0,
                                           52.6,
                         52.3,
                                      0.0);
4291086.9,
               52.3,
     ( 649554.1, 4291071.7,
                                52.2,
                                           52.2,
                                                       0.0);
                                                                     (649534.3,
                         52.1,
                                      0.0);
               52.1,
4291056.5,
     ( 649514.4, 4291041.3,
                                51.7,
                                           51.7,
                                                       0.0);
                                                                     (649494.6,
                                      0.0);
4291026.1,
               51.7,
                          51.7,
                                52.1,
     (649474.8, 4291010.9,
                                                                     (649454.9,
                                           52.1,
                                                       0.0);
                          52.3,
                                      0.0);
4290995.7,
               52.3,
     ( 649435.1, 4290980.5,
                                52.1,
                                                                     (649415.2,
                                                       0.0);
                                           52.1,
4290965.3,
               51.5,
                          51.5,
                                      0.0);
                                50.5,
                                           50.5,
     (649395.4, 4290950.1,
                                                       0.0);
                                                                     (649375.5,
                          50.2,
                                      0.0);
               50.2,
4290934.9,
                                50.3,
                                           50.3,
     (649355.7, 4290919.6,
                                                       0.0);
                                                                     (649335.9,
                         50.5,
               50.5,
                                      0.0);
4290904.4,
     (649316.0, 4290889.2,
                                50.6,
                                                       0.0);
                                                                     (649296.2,
                                           50.6,
                         50.8,
                                      0.0);
               50.8,
4290874.0,
                                50.9,
                                           50.9,
                                                       0.0);
     ( 649276.3, 4290858.8,
                                                                     (649256.5,
                          51.0,
                                      0.0);
4290843.6,
               51.0,
     (649236.6, 4290828.4,
                                51.4,
                                           51.4,
                                                       0.0);
                                                                    (649216.8,
               51.6,
                          51.6,
                                      0.0);
4290813.2,
                                50.7,
     (649185.1, 4290793.9,
                                           50.7,
                                                       1.8);
                                                                     (649699.4,
                       56.0,
                                      1.8);
4291179.0,
               56.0,
                                   *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
★ *** AERMOD - VERSION 22112 ***
                                    07/12/23
                                  ***
*** AERMET - VERSION 19191 ***
                                  12:48:12
```

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*

*** METEOROLOGICAL DAYS SELECTED FOR

PROCESSING ***

(1=YES; 0=NO)

1111111111 111111111111 1111111111 1111111111 1 1 1 1 1 1 1 1111111111 1111111 1111111111 111111 1111111 1111111111 1111111111 1111111111 1

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED

CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23,

10.80,

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS

*** 07/12/23

*** AERMET - VERSION 19191 *** ***

*** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL

DATA ***

Surface file: ..\..\MET DATA\14-18.SFC

Met Version: 19191

Profile file: ..\..\MET DATA\14-18.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 93225 Upper air station no.: 23230

Name: UNKNOWN Name:

OAKLAND/WSO_AP

Year: 2014 Year: 2014

YR MO	DY JDY REF WS	HR 5 WI	D H	U* 「REI	W* F TA	HT			M-O LEN		BOWEN
14 01	01 1	01 -	-15.5	3.166	-9.000	-9.000	-999.	162.	30.3	0.05	0.69
1.00	2.36	211.	10.1	275	.4 2	.0					
14 01			-3.4				-999.	56.	13.1	0.06	0.69
1.00	1.06	188.	10.1	273	.8 2	.0					
14 01	01 1	03 ·	-12.2	3.146	-9.000	-9.000	-999.	134.	23.5	0.05	0.69
1.00	2.10				.9 2						
14 01			-23.3			-9.000	-999.	257.	56.0	0.05	0.69
1.00						.0					
			-16.2				-999.	170.	32.2	0.06	0.69
			10.1								
			-3.0			-9.000	-999.	55.	12.9	0.06	0.69
			10.1			.0					
14 01							-999.	67.	14.7	0.07	0.69
			10.1								
			-1.8				-999.	40.	14.3	0.06	0.69
			10.1								
			-0.3				-999.	37.	75.4	0.06	0.69
0.41			10.1								0.50
14 01		10				0.020	80.	141.	-8.6	0.05	0.69
0.28			10.1				4.40	4			0.60
14 01			65.9				163.	157.	-5.9	0.07	0.69
0.24			10.1			.0	242	175	г о	0 07	0.60
			82.5				212.	1/5.	-5.8	0.07	0.69
			10.1				246	246	11 1	0 07	0.60
						.0	246.	246.	-11.1	0.07	0.69
			10.1				296	272	-15.6	0 05	0.69
			10.1				200.	2/2.	-13.0	0.03	0.09
							308	212	-16.5	0 06	0.69
0.26							500.	212.	-10.5	0.00	0.05
							315	1/11	-20.7	0 06	0 69
			10.1				515.	171.	20.7	0.00	0.05
			-9.6				-999	122	24.4	0.05	0.69
			10.1				,,,,		<u> </u>	0.05	0.05
			-1.5				-999	38	13.6	0.04	0.69
			10.1			.0	•	50.	23.3		

```
14 01 01 1 19 -1.5 0.058 -9.000 -9.000 -999. 34.
                                                     12.1 0.02
                                                                 0.69
                               2.0
    0.72 47. 10.1 280.9
14 01 01 1 20 -3.4 0.076 -9.000 -9.000 -999.
                                              50.
                                                     11.8 0.03
                                                                 0.69
      1.20 81. 10.1 278.8
                               2.0
                                              40.
14 01 01 1 21 -2.2 0.065 -9.000 -9.000 -999.
                                                     11.5 0.03
                                                                 0.69
      0.91 73.
                10.1 278.8
14 01 01 1 22 -1.6 0.059 -9.000 -9.000 -999.
                                              35.
                                                     12.0 0.02
                                                                 0.69
1.00
      0.74 22. 10.1 279.2
                               2.0
14 01 01 1 23 -1.9 0.063 -9.000 -9.000 -999.
                                              38.
                                                     11.9 0.03
                                                                 0.69
      0.82 60. 10.1 277.0
                               2.0
14 01 01 1 24 -5.1 0.090 -9.000 -9.000 -999.
                                              65.
                                                     13.1 0.02
                                                                 0.69
      1.57 34. 10.1 276.4
1.00
                             2.0
First hour of profile data
YR MO DY HR HEIGHT F WDIR WSPD AMB TMP sigmaA sigmaW sigmaV
14 01 01 01 10.1 1 211.
                           2.36 275.4 99.0 -99.00 -99.00
F indicates top of profile (=1) or below (=0)
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                      ***
                               07/12/23
*** AERMET - VERSION 19191 *** ***
                              12:48:12
                              PAGE 19
                RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
*** MODELOPTs:
                          *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
                             ***
VALUES FOR SOURCE GROUP: ALL
                             INCLUDING SOURCE(S): L0000001 , L0000002
, L0000003
                         , L0000005
             , L0000004
                         , L0000007
                                     , L0000008 , L0000009
               L0000006
                                                              , L0000010
             , L0000012
                         , L0000013
 , L0000011
               L0000014 , L0000015
                                   , L0000016 , L0000017 , L0000018
, L0000019
            , L0000020
                         , L0000021
                                    , L0000024 , L0000025 , L0000026
                         , L0000023
               L0000022
 , L0000027
             , L0000028
                         , . . .
                              *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                   ** CONC OF DPM IN MICROGRAMS/M**3
                 **
   Y-COORD |
                                                      X-COORD (METERS)
   (METERS)
                649742.20 649754.20 649766.20
                                                  649778.20
                                                              649790.20
649802.20
         649814.20
                     649826.20
                               649838.20
```

```
0.00268
              0.00274
                          0.00281
                                      0.00288
 4291392.99
                   0.00250
                                0.00256
                                                        0.00268
                                                                     0.00274
                                            0.00262
              0.00288
                          0.00296
                                      0.00303
 0.00281
                                                                     0.00288
                                0.00267
                                                        0.00281
 4291375.99
                   0.00261
                                            0.00274
 0.00295
              0.00303
                          0.00312
                                      0.00320
 4291358.99
                                0.00280
                                                        0.00295
                                                                     0.00303
                   0.00273
                                            0.00287
 0.00311
              0.00320
                          0.00329
                                      0.00339
                   0.00287
                                0.00294
 4291341.99
                                            0.00302
                                                        0.00310
                                                                     0.00319
 0.00328
              0.00338
                          0.00349
                                      0.00360
                                            0.00317
 4291324.99
                   0.00301
                                0.00309
                                                        0.00326
                                                                     0.00336
                          0.00371
                                      0.00384
 0.00347
              0.00358
 4291307.99
                   0.00317
                                0.00326
                                                        0.00346
                                                                     0.00357
                                            0.00336
                                      0.00407
 0.00368
              0.00379
                          0.00392
 4291290.99
                   0.00329
                                0.00339
                                            0.00348
                                                        0.00357
                                                                     0.00370
              0.00396
                                      0.00437
 0.00381
                          0.00416
 4291273.99
                   0.00342
                                0.00349
                                            0.00359
                                                        0.00370
                                                                     0.00383
              0.00420
                          0.00449
                                      0.00472
 0.00398
 4291256.99
                   0.00358
                                0.00368
                                            0.00381
                                                        0.00394
                                                                     0.00408
 0.00424
              0.00452
                          0.00486
                                      0.00515
 4291239.99
                   0.00381
                                0.00394
                                            0.00411
                                                        0.00428
                                                                     0.00445
 0.00464
              0.00494
                          0.00535
                                      0.00575
↑ *** AERMOD - VERSION 22112 ***
                                *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                  07/12/23
 *** AERMET - VERSION 19191 ***
                                 12:48:12
                                 PAGE 20
 *** MODELOPTs:
                 RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                            *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                                INCLUDING SOURCE(S): L0000001
                                                                   , L0000002
 , L0000003
              , L0000004
                           , L0000005
                                                      , L0000009
                L0000006
                           , L0000007
                                          L0000008
                                                                   , L0000010
 , L0000011
                           , L0000013
              , L0000012
                                        , L0000016
                           , L0000015
                                                      , L0000017
                L0000014
                                                                   , L0000018
  L0000019
              , L0000020
                           , L0000021
                           , L0000023
                                          L0000024
                                                      , L0000025
                L0000022
                                                                   , L0000026
  L0000027
              , L0000028
                                 *** NETWORK ID: ROSEHIGH; NETWORK TYPE:
GRIDCART ***
                                      ** CONC OF DPM
                                                       IN MICROGRAMS/M**3
   Y-COORD |
                                                          X-COORD (METERS)
   (METERS) |
                              649862.20
                  649850.20
```

0.00240 0.00245 0.00250

0.00256

0.00262

4291409.99

```
4291409.99
                  0.00295
                              0.00302
 4291392.99
                  0.00311
                              0.00319
 4291375.99
                  0.00328
                              0.00338
 4291358.99
                  0.00349
                              0.00359
 4291341.99
                  0.00371
                              0.00383
 4291324.99
                  0.00397
                              0.00412
 4291307.99
                  0.00426
                              0.00445
 4291290.99
                 0.00457
                              0.00481
 4291273.99
                  0.00495
                              0.00524
 4291256.99
                  0.00541
                              0.00577
 4291239.99
                  0.00607
                              0.00644
★ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS
                                07/12/23
 *** AERMET - VERSION 19191 ***
                               12:48:12
                               PAGE 21
 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ U*
                           *** THE PERIOD ( 43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL
                              INCLUDING SOURCE(S): L0000001 , L0000002
                          , L0000005
 , L0000003
             , L0000004
                                      , L0000008 , L0000009 , L0000010
                         , L0000007
               L0000006
 , L0000011
             , L0000012
                         , L0000013
                                     , L0000016 , L0000017 , L0000018
               L0000014
                         , L0000015
             , L0000020
  L0000019
                          , L0000021
                                      , L0000024 , L0000025 , L0000026
               L0000022
                          , L0000023
             , L0000028
 , L0000027
                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
                                    ** CONC OF DPM IN MICROGRAMS/M**3
                 **
      X-COORD (M) Y-COORD (M) CONC
                                                            X-COORD (M)
Y-COORD (M)
        650194.23
                  4291271.45
                              0.00594
                                                              650195.61
4291266.76 0.00566
        650196.44
                 4291262.63
                                  0.00542
                                                              650197.82
               0.00518
4291257.94
        650199.75
                  4291253.25 0.00495
                                                              650201.96
4291248.01
               0.00472
        650204.16 4291242.49 0.00450
                                                              650205.82
4291236.70 0.00429
```

650212.33 4291238.72	0 00427	650219 31
4291240.52 0.00426	0.00427	030210.31
650224.69 4291242.51	0.00425	650232.67
4004045 24 0 00405		
4291245.31 0.00425 650241.05 4291248.30	0.00425	650249.22
4291250.89 0.00425		
650256.60 4291253.68	0.00425	650266.17
4291257.07 0.00425		
650206.35 4291276.22	0.00593	650208.54
4291273.23 0.00572 650210.14 4291268.64	0.00546	650212.33
4291264 65 0 00523		030212.33
650235.26 4291286.19	0.00592	650236.66
4291283.00 0.00572		
4291283.00 0.00572 650238.25 4291279.81	0.00553	650239.25
4291276.22 0.00534		
650239.65 4291273.03	0.00518	650256.40
4291291.97 0.00582	0.00552	650250 00
650258.00 4291286.79 4291279.81 0.00516		
650260.59 4291272.43	0.00484	650263.78
4291266.05 0.00457		
649381.16 4290586.76	0.00301	649394.57
4290600.17 0.00307		
649410.67 4290612.69	0.00309	649425.86
4290624.31 0.00310		
649417.82 4290633.25		649410.67
4290643.08 0.00364 649391.89 4290566.20	0 00262	649400.83
4290559.05 0.00247	0.00202	049400.03
649406.20 4290552.79	0.00237	649414.24
4290537.59 0.00219		
649435.70 4290606.43	0.00275	649444.64
4290599.28 0.00260		
649449.11 4290591.23	0.00248	649458.05
4290584.08 0.00235	0.00204	C40469 77
649458.05 4290643.98 4290628.78 0.00273	0.00304	649468.77
649481.29 4290618.95	0.00252	649497.38
4290607.32 0.00230	0.00232	013137130
649452.68 4290733.37	0.00539	649462.52
4290744.99 0.00555		
649473.24 4290753.04	0.00556	649487.55
4290761.98 0.00549		
649458.94 4290719.07	0.00469	649482.18
4290692.25 0.00356 649496.49 4290676.16	0 00310	649494.70
4290750.36 0.00483	0.00510	0-7-7-7-7-0
649510.79 4290725.33	0.00380	649531.35
4290701.19 0.00310		

649512.58 4290658.28	0.002/1 649505.43
4290620.73 0.00237	
649581.89 4290816.00	0.00478 649595.63
4290822.01 0.00463	
649605.89 4290832.53	
4290841.57 0.00473 649599.29 4290800.42	
	0.00397 649604.66
4290787.90 0.00361	
649623.43 4290818.30	0.00394 649627.90
4290802.21 0.00354	
649634.60 4290882.58	0.00579 649644.44
4290891.53 0.00586	
649657.85 4290903.15	0.00591 649662.32
4200045 02 0 00207	
649670.37 4290910.31	0.00578 649672.16
4290855.76 0.00393	
649681.10 4290918.35	0.00578 649690.04
4290926.40 0.00584	
649703.46 4290939.81	0.00599 649686.47
4290867.38 0.00395	
649698.09 4290813.73	0.00291 649718.66
4290834.29 0.00297	0101252
	* 3RD LEG LAYOVER OPERATIONAL EMISSIONS
*** 07	7/12/23
*** AERMET - VERSION 19191 *** ***	7 12/23
*** 12:4	
12.4	12
DAGE	E 22
*** MODELOPTs: RegDFAULT CONC ELE	
MODELOFIS. REGULACIT CONC. ELE	TV FLOPOL ORBAN ADJ_O
*** TUE F	PERIOD (43680 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***	PERIOD (43000 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP, ALL	IDTNC COURCE(C). 1,000,0001 1,000,0002
INCLU	JDING SOURCE(S): L0000001 , L0000002
, L0000003 , L0000004 , L0000005	5 , 7 , L0000008 , L0000009 , L0000010
L0000006 , L0000007	, 10000008 , 10000009 , 10000010
, L0000011 , L0000012 , L0000013	
L0000014 , L0000015	
, L0000019 , L0000020 , L0000021	
L0000022 , L0000023	3 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 ,	,
	*** DISCRETE CARTESIAN RECEPTOR POINTS

	** CONC OF DPM IN MICROGRAMS/M**3
**	
X-COORD (M) Y-COORD (M)	CONC X-COORD (M)
Y-COORD (M) CONC	

0.00271

649505.43

649512.58 4290658.28

649741.01 4290850.39 0.00296 649763.37 4290863.80 0.00292 649701.67 4290877.22 0.00390 649715.08 4290890.63 0.00398 649732.07 4290904.94 0.00403 649910.92 0.00313 4290991.68 649928.80 4291003.31 0.00308 649945.79 0.00304 4291014.04 649962.79 4291022.98 0.00299 650053.10 4291107.93 0.00333 650064.73 4291089.15 0.00294 650085.30 4291104.35 0.00296 650070.09 4291118.66 0.00332 650083.51 4291131.18 0.00338 0.00332 650157.73 650146.10 4291166.06 4291151.75 0.00300 650140.74 4291144.59 0.00303 650115.70 0.00298 4291125.82 650113.91 4291149.07 0.00334 650178.30 4291183.94 0.00335 650190.82 4291167.85 0.00299 650434.94 0.00199 4291167.85 650417.06 4291189.31 0.00222 650401.86 4291217.03 0.00256 650207.81 4291177.68 0.00301 650225.69 4291183.05 0.00298 650240.89 4291188.41 0.00296 650258.78 4291195.57 0.00296 650280.24 4291200.93 0.00292 650293.65 4291207.19 0.00294 650315.11 4291215.24 0.00295 650333.89 4291220.60 0.00293 650352.67 4291225.08 0.00289 650374.13 0.00287 4291231.34 650013.76 4291462.05 0.00343 649930.59 4291369.05 0.00408 4291349.37 649935.06 649914.50 0.00428 4291335.96 0.00492 649907.34 4291317.18 0.00499 649919.86 4291361.00 0.00412 649909.13 4291335.07 0.00455 649903.77 0.00524 4291306.45 649917.18 4291272.47 0.00680 649911.81 0.00555 4291301.09 649924.33 4291302.87 0.00577 650053.10 4291363.68 0.00580 4291373.52 650066.52 0.00575 650079.04 4291366.37 0.00628 649216.78 4290755.24 0.00568 649667.26

4291204.25 0.00371		
649647.43 4291189.03	0.00368	649627.60
4291173.81 0.00367	0.00074	
649607.77 4291158.59	0.00371	649587.93
4291143.37 0.00378		
649568.10 4291128.14	0.00378	649548.27
4291112.92 0.00375		
649528.43 4291097.70	0.00372	649508.60
4291082.48 0.00374		
649488.77 4291067.26	0.00375	649468.94
4291052.04 0.00372		
649449.10 4291036.82	0.00366	649429.27
4291021.60 0.00367		
649409.44 4291006.38	0.00371	649389.61
4290991.16 0.00370	0.0005	440000
649358.62 4290967.62	0.00367	649339.01
4290952.12 0.00366		
649319.40 4290936.61	0.00364	649299.79
4290921.11 0.00362		
649280.17 4290905.61	0.00359	649260.56
4290890.10 0.00356	0.0000	
649240.95 4290874.60	0.00352	649221.34
4290859.10 0.00348	0.00044	440400 44
649201.72 4290843.59	0.00344	649182.11
4290828.09 0.00340	0.00040	
649158.28 4290816.10	0.00319	649684.20
4291223.82 0.00357	0.00753	640335 73
649247.52 4290740.02	0.00/52	649225.72
4290769.65 0.00548	0.00555	C40265 44
649245.57 4290784.86	0.00555	649265.41
4290800.06 0.00560 ♠ *** AERMOD - VERSION 22112 *** ***	ORD LEG LAVOVED ODERATIONAL	EMTCCTONC
		FWT22TON2
*** 07		
*** AERMET - VERSION 19191 *** ***		
*** 12:4	8:12	
DACE	22	
PAGE		
*** MODELOPTs: RegDFAULT CONC ELE	V FLGPOL URBAN ADJ_U*	
*** TUE D	EDIOD / 42COO LIDE) AVEDACE CO	NCENTRATION
	ERIOD (43680 HRS) AVERAGE CO	NCENTRATION
VALUES TON SOUNCE GROOT: ALL	DING COURCE (C)	1.0000003
	DING SOURCE(S): L0000001	, L0000002
, L0000003 , L0000004 , L0000005		1.0000010
L0000006 , L0000007		, L0000010
, L0000011 , L0000012 , L0000013	-	1,000,004.0
L0000014 , L0000015		, L0000018
, L0000019 , L0000020 , L0000021	-	1,000,000
L0000022 , L0000023	, L0000024 , L0000025	, L0000026
, L0000027 , L0000028 ,	9	

**	** CONC OF DPM	IN MICROGRAMS/M**3
X-COORD (M) Y-COORD (M) Y-COORD (M) CONC	CONC	X-COORD (M)
649285.25 4290815.27		649305.10
4290830.48 0.00568		
649324.94 4290845.68 4290860.89 0.00572		649344.78
649364.63 4290876.10	0.00574	649384.47
4290891.31 0.00577 649404.31 4290906.51	0.00578	649424.16
4290921.72 0.00582 649444.00 4290936.93	0.00584	649463.84
4290952.13 0.00586 649483.69 4290967.34		649503.53
4290982.55 0.00590		
649523.37 4290997.75 4291012.96 0.00594		649543.21
649563.06 4291028.17 4291043.37 0.00598	0.00596	649582.90
649602.74 4291058.58	0.00599	649622.59
4291073.79 0.00600 649642.43 4291088.99	0.00600	649662.27
4291104.20 0.00593 649682.12 4291119.41		649701.96
4291134.62 0.00599		
649673.19 4291162.96 4291147.75 0.00455	0.00451	649653.34
649633.50 4291132.55 4291117.34 0.00461	0.00458	649613.66
649593.81 4291102.13	0.00461	649573.97
4291086.92 0.00460 649554.13 4291071.72	0.00459	649534.28
4291056.51 0.00457 649514.44 4291041.30	0.00456	649494.60
4291026.10 0.00455 649474.75 4291010.89	0.00452	649454.91
4290995.68 0.00449		
649435.07 4290980.48 4290965.27 0.00448	0.00448	649415.22
649395.38 4290950.06 4290934.86 0.00445	0.00447	649375.54
649355.70 4290919.65	0.00443	649335.85
4290904.44 0.00441		

	649316.01 4290889.	24 0.00439		649296.17
	0.00436			
	649276.32 4290858.3 61 0.00429	82 0.00432		649256.48
	649236.64 4290828.4	41 0.00422		649216.79
4290813.	20 0.00415			0.12=00.72
	649185.13 4290793.9	92 0.00389		649699.43
4291179.	0.00437	*** ***	AVOVED ODED 43	TONAL ENTECTONS
↑ ↑↑↑ At	ERMOD - VERSION 22112 ***	07/12/23	LAYOVER OPERA	TONAL EMISSIONS
*** AER	RMET - VERSION 19191 *:			

*** MOD	DELODICO POGDEAULT (PAGE 24	LIDDAN ADJ I	1*
WIOL	DELOPTs: RegDFAULT (CONC ELEV FLGPOL	OKBAN ADJ_C) ··
		*** THE S	SUMMARY OF MAX	IMUM PERIOD (43680
HRS) RES	SULTS ***			,
		** CONC OF DE	PM IN MIC	`PUCDVWC \W**3
	**	CONC OF DE	TH THE	MOURAMS/M**3
CDOUD TO	NETWO			
				CENTAR (VR VR
) ZHTII ZELAG) OF TYPE		REC	CEPTOR (XR, YR,
	ZHILL, ZFLAG) OF TYPE		REC 	CEPTOR (XR, YR,
			REC	CEPTOR (XR, YR,
ZELEV, Z 	ZHILL, ZFLAG) OF TYPE	GRID-ID 		
ZELEV, Z	ZHILL, ZFLAG) OF TYPE	GRID-ID 		
ZELEV, Z ALL 49.72,	THILL, ZFLAG) OF TYPE	GRID-ID 	649247.52,	4290740.02,
ZELEV, Z ALL 49.72,	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC	GRID-ID 	649247.52, 649917.18,	4290740.02, 4291272.47,
ZELEV, Z ALL 49.72, 53.51,	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS	GRID-ID	649247.52, 649917.18,	4290740.02, 4291272.47,
ZELEV, Z ALL 49.72,	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS 53.70, 1.80) GC	GRID-ID	649247.52, 649917.18, 649862.20,	4290740.02, 4291272.47, 4291239.99,
ZELEV, Z	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS 53.70, 1.80) GC 4TH HIGHEST VALUE IS	GRID-ID	649247.52, 649917.18, 649862.20,	4290740.02, 4291272.47, 4291239.99,
ZELEV, Z ALL 49.72, 53.51,	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS 53.70, 1.80) GC 4TH HIGHEST VALUE IS 56.37, 1.80) DC	GRID-ID 0.00752 AT (0.00680 AT (0.00644 AT (ROSEHIGH 0.00628 AT (649247.52, 649917.18, 649862.20, 650079.04,	4290740.02, 4291272.47, 4291239.99, 4291366.37,
ZELEV, Z	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS 53.70, 1.80) GC 4TH HIGHEST VALUE IS 56.37, 1.80) DC 5TH HIGHEST VALUE IS	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04,	4290740.02, 4291272.47, 4291239.99, 4291366.37,
ZELEV, Z	THILL, ZFLAG) OF TYPE 1ST HIGHEST VALUE IS 49.72, 0.00) DC 2ND HIGHEST VALUE IS 53.51, 1.80) DC 3RD HIGHEST VALUE IS 53.70, 1.80) GC 4TH HIGHEST VALUE IS 56.37, 1.80) DC 5TH HIGHEST VALUE IS 53.90, 1.80) GC 6TH HIGHEST VALUE IS	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID 0.00752 AT (0.00680 AT (0.00644 AT (ROSEHIGH 0.00628 AT (0.00607 AT (ROSEHIGH 0.00600 AT (0.00600 AT (649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43, 649622.59,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99, 4291073.79,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43, 649622.59,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99, 4291073.79,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43, 649642.59, 649703.46,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99, 4291073.79, 4290939.81,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43, 649622.59, 649703.46, 649602.74,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99, 4291073.79, 4290939.81, 4291058.58,
ZELEV, Z	THILL, ZFLAG) OF TYPE	GRID-ID	649247.52, 649917.18, 649862.20, 650079.04, 649850.20, 649642.43, 649622.59, 649703.46, 649602.74,	4290740.02, 4291272.47, 4291239.99, 4291366.37, 4291239.99, 4291088.99, 4291073.79, 4290939.81, 4291058.58,

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

↑ *** AERMOD - VERSION 22112 *** *** 3RD LEG LAYOVER OPERATIONAL EMISSIONS

*** 07/12/23

*** AERMET - VERSION 19191 *** ***

*** 12:48:12

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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 6 Warning Message(s)
A Total of 996 Informational Message(s)

A Total of 43680 Hours Were Processed

A Total of 452 Calm Hours Identified

A Total of 544 Missing Hours Identified (1.25 Percent)

****** FATAL ERROR MESSAGES ******

*** NONE ***

***** ***** WARNING MESSAGES SO W320 231 PPARM: Input Parameter May Be Out-of-Range for Parameter VS SO W320 232 PPARM: Input Parameter May Be Out-of-Range for Parameter VS SO W320 233 PPARM: Input Parameter May Be Out-of-Range for Parameter VS SO W320 234 PPARM: Input Parameter May Be Out-of-Range for Parameter VS ME W186 260 MEOPEN: THRESH 1MIN 1-min ASOS wind speed threshold used 0.50 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET ME W187 260

*** AERMOD Finishes Successfully ***

*HARP - HRACalc v22118 7/12/2023 1:40:57 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram INDEX GRP1 GRP2 POLID POLABBRE CONC RISK_SUM SCENARIO DETAILS INH_RISK 2 9901 DieselExhF 0.0075 6.49E-06 30YrCance * 6.49E-06

ento Third Rail\2023 update\aermod Layover operate\third layover operationHRAInput.hra

SOIL_RISK DERMAL_FMMILK_RI WATER_RIFISH_RISK CROP_RISI BEEF_RISK DAIRY_RIS PIG_RISK CHICKEN_I
0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

EGG_RISK 1ST_DRIVE2ND_DRIV PASTURE_FISH_CON/WATER_CONC 0.00E+00 INHALATION 0.00E+00 0.00E+00 0.00E+00

*HARP - HRACalc v22118 7/12/2023 3:27:05 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram INDEX GRP1 GRP2 POLID POLABBRE CONC RISK_SUM SCENARIO DETAILS INH_RISK 1 9901 DieselExhF 0.0054 9.60E-07 1YrCancer * 9.60E-07

ento Third Rail\2023 update\aermod Layover constuct\HARP\HARP output\thrd layover consrct miigatedHRA SOIL_RISK DERMAL_FMMILK_RI WATER_RI FISH_RISK CROP_RISI BEEF_RISK DAIRY_RIS PIG_RISK CHICKEN_I 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

તાput.hra

EGG_RISK 1ST_DRIVE2ND_DRIV PASTURE_FISH_CON/WATER_CONC 0.00E+00 INHALATION 0.00E+00 0.00E+00 0.00E+00

*HARP - HRACalc v22118 7/18/2023 4:57:17 PM - Cancer Risk - Input File: D:\Documents\Roseville to Sacram INDEX GRP1 GRP2 POLID POLABBRE CONC RISK_SUM SCENARIO DETAILS INH_RISK 1 9901 DieselExhF 0.0127 2.26E-06 1YrCancer * 2.26E-06

ento Third Rail\2023 update\aermod Layover constuct\HARP\HARP output\thrd layover consrct unmiigatedH SOIL_RISK DERMAL_FMMILK_RI WATER_RI FISH_RISK CROP_RISI BEEF_RISK DAIRY_RIS PIG_RISK CHICKEN_I 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00 0.00E+00

RAInput.hra

EGG_RISK 1ST_DRIVE2ND_DRIV PASTURE_FISH_CON/WATER_CONC 0.00E+00 NA NA 0.00E+00 0.00E+00 0.00E+00