
Appendix B

Air Quality, Greenhouse Gas Emissions, and Energy Technical Memorandum

MEMORANDUM

To: Ted Felix, JKAE Architecture
From: Ian McIntire, Air Quality Specialist, Dudek
Subject: Truckee Regional Library Air Quality, Greenhouse Gas Emissions, and Energy Technical Memorandum
Date: October 3, 2025
Attachment A: CalEEMod Emissions Outputs

1 Introduction and Purpose

The purpose of this technical memorandum is to evaluate the potential air quality, greenhouse gas (GHG) emissions, and energy impacts of the proposed Truckee Regional Library Project (project or proposed project) located in Nevada County, California. This memorandum was prepared in support of the California Environmental Quality Act (CEQA) evaluation for the project.

The contents and organization of this memorandum are as follows: Project Description; Background and Methodology; Summary of Previous Analysis, Thresholds of Significance, and Impact Analyses for the Air Quality, GHG Emissions, and Energy Assessments; Conclusions; and References Cited.

2 Project Description

The project is located on an approximately 6-acre lot in the Town of Truckee, California, along Old Brockway Road. The project proposes to construct a 20,100 square foot (SF) library with outdoor activity space, a park and picnic area, and 37 parking spaces.

3 Background and Methodology

3.1 Environmental Setting

Ambient air quality is generally affected by climatological conditions, the topography of the air basin, and the type and amounts of pollutants emitted. The project site is located within the Mountain Counties Air Basin (MCAB). The MCAB includes portions of Amador, Calaveras, El Dorado, Mariposa, Nevada, Placer, Plumas, Sierra, and Tuolumne counties and is comprised of seven air districts. Nevada, Plumas, and Sierra counties are under the jurisdiction of the Northern Sierra Air Quality Management District (NSAQMD).

Mild, wet winters and warm, dry summers characterize the climate of central and eastern Nevada County. Precipitation, much of it in the form of snow, generally occurs between November and April. Prevailing winds are from the south and southwest, and local air quality is influenced by the transportation of emissions from upwind mobile and stationary pollution sources in Placer County, the Sacramento metropolitan area, and the San Francisco Bay area.

Air quality in Nevada County is also affected by inversion layers, which occur when a layer of warm air traps a layer of cold air beneath it, preventing vertical dispersion of air contaminants. Calm atmospheric conditions that contribute to the creation of these inversion layers frequently occur in the region during late fall and early spring. The presence of an inversion layer results in higher concentrations of pollutants near ground level.

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (coarse particulate matter, or PM₁₀), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (fine particulate matter, or PM_{2.5}). Volatile organic compounds (VOCs; also referred to as reactive organic gases [ROGs]) are not a criteria air pollutant but are evaluated as a precursor to ozone (O₃), which is a criteria air pollutant but is difficult to directly quantify because of its complicated formation process in the atmosphere, which requires light photolysis and the presence of multiple precursors.

Greenhouse gases (GHGs) are gases that absorb infrared radiation in the atmosphere. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature. Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect. Principal GHGs include CO₂, methane (CH₄), nitrous oxide (N₂O), O₃, and water vapor. If the atmospheric concentrations of GHGs rise, the average temperature of the lower atmosphere will gradually increase. Globally, climate change has the potential to impact numerous environmental resources though uncertain impacts related to future air temperatures and precipitation patterns. Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. Climate change is already affecting California: average temperatures have increased, leading to more extreme hot days and fewer cold nights; shifts in the water cycle have been observed, with less winter precipitation falling as snow, and both snowmelt and rainwater running off earlier in the year; sea levels have risen; and wildland fires are becoming more frequent and intense due to dry seasons that start earlier and end later (Climate Action Team [CAT] 2010).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP), which varies among GHGs. Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO₂. Thus, GHG emissions are typically measured in terms of pounds or tons of CO₂ equivalent (CO₂e). The CO₂e for a gas is derived by multiplying the mass of the gas by the associated GWP, such that MT of CO₂e = (MT of a GHG) × (GWP of the GHG). CalEEMod uses data from the Intergovernmental Panel on Climate Change's (IPCC's) Fourth Assessment Report (IPCC 2007) to support the assumption that the GWP for CH₄ is 25, which means that emissions of one MT of CH₄ are equivalent to emissions of 25 MT of CO₂, and the GWP for N₂O is 298.

3.2 Approach and Methodology

CalEEMod Version 2022.1.1.30 was used to estimate emissions from construction of the project (California Air Pollution Control Officers Association [CAPCOA] 2022). CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant and GHG emissions associated with construction activities and operation of a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the project and its size, construction schedule, and anticipated use of construction equipment, were based on information provided by the applicant or default model assumptions if project specifics were unavailable.

3.2.1 Construction Emissions

For purposes of estimating project emissions, and based on information provided by the project applicant, it is assumed that construction activities would commence in May 2026 and would be completed by November/December 2027. For the purposes of construction modeling, the models do not need to use the exact commencement and completion dates to accurately represent the project construction emissions. This is because state and local regulations, restrictions, and increased market penetration of cleaner construction equipment are anticipated to continue to reduce emissions in the future. In other words, because California's construction related emission sources are regulated and will foreseeably continue to be more strictly regulated in the future, project emissions are reasonably expected to continue to decline. Thus, by utilizing an earlier start date of May 2026, this analyses' estimated emissions likely overstate actual emission levels. Therefore, the analysis and modeling included herein continue to provide an accurate and conservative assessment of the project's construction-related air pollutant emissions.

- Site Preparation: 2 weeks (May 2026)
- Grading: 4 weeks (June 2026)
- Building Construction: 16 Months (July 2026 – October 2027)
- Paving: 4 weeks (October 2027)
- Architectural Coatings: 4 weeks (November 2027)

For the analysis, it was assumed that heavy-duty construction equipment would be operating at the site 5 days per week. For on-site development, the preliminary grading plans indicate that the project would require approximately 4,891 cubic yards (CY) of cut and 3,494 CY of fill resulting in 1,397 CY of soil export. Table 1 presents the construction scenario assumptions used for estimating project-generated emissions in CalEEMod. The assumptions presented below are based on information provided by the project applicant.

Table 1. Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site Preparation	6	2	0	Graders	1	8
				Tractors/Loaders/Backhoes	1	8
Grading	8	2	9	Graders	1	8
				Rubber Tired Dozers	1	8
				Tractors/Loaders/Backhoes	1	8
Building Construction	18	6	0	Cranes	1	8
				Forklifts	2	8
				Tractors/Loaders/Backhoes	2	8
Paving	14	0	0	Cement and Mortar Mixers	4	8
				Pavers	1	8
				Rollers	1	8
				Tractors/Loaders/Backhoes	1	8
Architectural Coating	4	0	0	Air Compressors	1	8

Notes: See Attachment A for details.

3.2.2 Operational Emissions

Emissions from the operational phase of the project were estimated using CalEEMod. Operational year 2027 was assumed for this analysis as when construction activities would cease.

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products,

furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions were estimated in CalEEMod based on the floor area of buildings and default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from application of nonresidential surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The VOC emission factor is based on the VOC content of the surface coatings, and NSAQMD's Rule 1113 (Architectural Coatings) governs the VOC content for interior and exterior coatings. The model default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the nonresidential surface area for painting equals 2.0 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating. For asphalt surfaces, the architectural coating area is assumed to be 6% of the total square footage, consistent with the supporting CalEEMod studies provided as an appendix to the CalEEMod User's Guide (CAPCOA 2022).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated with landscape equipment use were estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days.

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHG emissions in CalEEMod, since criteria pollutant emissions would occur at the site of power plants, which are not on the project site. However, natural gas combustion would occur at the project site itself, in association with equipment that uses natural gas. The emissions associated with natural gas use were calculated using CalEEMod default parameters, which are reflective of the 2019 Title 24 standards to the extent CEC accounted for them in the underlying Commercial Forecast assumed in CalEEMod. Using CalEEMod default values are conservative as the project would be required to comply with the more stringent 2022 Title 24 standards, which became effective January 1, 2023.

Regarding GHG emissions, the estimation of operational energy emissions was based on CalEEMod land use defaults and square footage of the project's land uses. For non-residential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO₂ and other GHGs.

The CalEEMod default energy intensity factor (CO₂, CH₄, and N₂O mass emissions per kilowatt-hour) were utilized for Liberty Utilities. Senate Bill (SB) X1-2 established a target of 33% from renewable energy sources for all electricity providers in California by December 31, 2020, and SB 100 calls for further development of renewable energy, with

a target of 44% by December 31, 2024; 52% by December 31, 2027; and 60% by December 31, 2030. As such, GHG emissions associated with project electricity demand would continue to decrease over time.

Mobile Sources

The project would generate criteria pollutant and GHG emissions from mobile sources (vehicular traffic) as a result of the ten new employees for the accessory spa/recreational facilities. The CalEEMod 2022.1.1.30 was used to estimate daily emissions from proposed vehicular sources (refer to Attachment A). CalEEMod default data for a library land use, including temperature, trip characteristics, variable start information, emissions factors, and trip distances, were conservatively used for the model inputs. Emission factors representing the vehicle mix and emissions for 2027 were conservatively used to estimate emissions associated with vehicular sources.

Solid Waste

The project would generate minimal solid waste, and, therefore, result in limited CO_{2e} emissions associated with landfill off-gassing. CalEEMod default values were used to estimate the solid waste generation and associated GHG emissions.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod default values.

Refrigerants

Refrigerants are substances used in equipment for air conditioning (A/C) and refrigeration. Most of the refrigerants used today are hydrofluorocarbons or blends thereof, which can have high GWP values. All equipment that uses refrigerants has a charge size (i.e., quantity of refrigerant the equipment contains), and an operational refrigerant leak rate, and each refrigerant has a GWP that is specific to that refrigerant. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime, and then derives average annual emissions from the lifetime estimate (CAPCOA 2022).

Stationary Sources

Per preliminary Project details, operation of the project would include use one diesel emergency backup generator. Dudek used the specifications (i.e., horsepower) for the Blue Star Power Systems, Inc. PD600-01 (600 kilowatt [kW] capacity) assuming maximum annual usage not to exceed 200 hours¹.

¹ It was assumed that the emergency backup generator does not operate more than 200 hours a year and are only operational in the event of an emergency power failure or for routine testing and maintenance.

4 Air Quality Assessment

4.1 Threshold of Significance

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable air district may be relied on to determine whether the project would have a significant impact on air quality.

In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether the proposed project would have a significant impact on air quality. The NSAQMD has developed a tiered approach to significance levels; a project with emissions qualifying it for Level A thresholds should require the most basic mitigations. Projects which qualify for Level B should require more extensive mitigations, and subsequently, those projects which qualify for Level C should require the most extensive application of mitigations. The tiered thresholds for Levels A, B, and C are given in Table 2 for a project’s estimated emissions of criteria pollutants in pounds per day. The emissions-based thresholds for O₃ precursors are intended to serve as a surrogate for an “O₃ significance threshold” (i.e., the potential for adverse O₃ impacts to occur). This approach is used because O₃ is not emitted directly and the effects of an individual project’s emissions of O₃ precursors (ROG and NO_x) on O₃ levels in ambient air cannot be determined through air quality models or other quantitative methods.

Table 2. NSAQMD Significance Thresholds for Criteria Pollutants

Pollutant	ROG	NO _x	PM ₁₀
	Pounds per Day		
Level A Thresholds	<24	<24	<79
Level B Thresholds	24–136	24–136	79–136
Level C Thresholds	>136	>136	>136

Source: NSAQMD 2024.

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM₁₀ = particulate matter with an aerodynamic diameter less than or equal to 10 microns.

If emissions for NO_x, ROG, and/or PM₁₀ exceed 136 pounds per day (Level C), then there is a significant impact; below Level C the impact would be potentially significant. The NSAQMD guidelines suggest that projects with higher emissions (Level C Thresholds) should automatically mitigate more emissions, quantitatively, than would a lower impact project (Level A). Also, according to the guidelines, if a new project is unable to provide adequate on-site mitigation of their long-term air quality impacts, an off-site mitigation program may be necessary.

The NSAQMD established their thresholds of significance for CEQA purposes in order to achieve and maintain the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Since an AAQS is based on maximum pollutant levels in outdoor air that would not harm the public's health, and air district

thresholds pertain to attainment of the AAQS, this means that a project that complies with the thresholds established by a local air district, such as the NSAQMD, would not result in adverse effects to human health.

4.2 Impact Analysis

4.2.1 Would the project conflict with or obstruct implementation of the applicable air quality plan?

An area is designated as “in attainment” when it is in compliance with the federal and/or state standards. These standards are set by the U.S. Environmental Protection Agency (EPA) or California Air Resources Board (CARB) for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or public welfare with a margin of safety. Nevada County, which includes the project site, is designated as nonattainment for the federal and state ozone (O₃) standards. The eastern part of the county, which includes the project site is in attainment, and thus is not directly included in the attainment plan. The County is also designated as nonattainment for the state particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀) standard. As a nonattainment area, the NSAQMD submitted an Ozone Attainment Plan to the EPA (NSAQMD 2023). The Ozone Attainment Plan is a federally enforceable air quality attainment plan for western Nevada County designed to reduce emissions of O₃ precursors (reactive organic gases [ROG], and NO_x) to attain the federal 8-hour O₃ standard by August 3, 2027, in accordance with the Clean Air Act.

Generally, a project would be considered to potentially conflict with the Ozone Attainment Plan if it would result in demographic growth that would exceed the forecasts used in the Plan. It should be noted that the eastern part of the County, which includes the project site is in attainment, and thus is not directly included in the attainment plan. Nevertheless, the following discussion is provided.

Regarding demographic growth, forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) were developed by Nevada County Transportation Commission (NCTC) for its 2015–2035 Regional Transportation Plan (RTP) (NCTC 2018). Notably, the NCTC is in the process of developing the 2045 update to the RTP. The Ozone Attainment Plan relies on the land use and population projections provided in the 2015–2035 RTP, which is generally consistent with the local plans in Nevada County; therefore, the Ozone Attainment Plan is generally consistent with local government plans. The project site is currently zoned Public Facilities (PF). As previously discussed, the project includes the construction of a new library totaling up to 20,000 SF. Therefore, no changes to the existing zoning designations are necessary.

As described in the 2015–2035 RTP, the government sector in Nevada County has resulted in an increase in 460 jobs from 2009 to 2014 (NCTC 2018). Furthermore, it was estimated that the government sector would see an 8.3% growth by 2022. Overall, the project would result in approximately 10 jobs, which would be within the forecasts included in the 2015-2035 RTP. During full operations, the project would not result in an increase of employees that would result in regional growth that is not accounted for within the Ozone Attainment Plan.

Therefore, the project would be consistent at a regional level with the Ozone Attainment Plan. Impacts would be **less than significant**.

4.2.2 Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the NSAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

A quantitative analysis was conducted to determine whether the project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ROG, NO_x, and PM₁₀. Pollutants that are evaluated herein include ROG and NO_x, which are important because they are precursors to O₃, as well as PM₁₀.

Regarding NAAQS and CAAQS attainment status,² Nevada County is designated as a nonattainment area for state and federal O₃ and the state PM₁₀ standards (CARB 2022a). Nevada County is in attainment for all other federal and state standards.

The project would result in emissions of criteria air pollutants for which the CARB and EPA have adopted ambient air quality standards as previously discussed (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. Per NSAQMD recommendations, unmitigated project-generated emissions that are greater than zero (i.e., at Levels A, B, or C) should be mitigated (NSAQMD 2024). The emissions estimates for construction and operation of the project are further discussed below.

The CalEEMod 2022.1.1.30 was used to estimate emissions from construction and operation of the project.³ The following discussion quantitatively evaluates project-generated construction and operational emissions and impacts that would result from implementation of the project.

Construction

Implementation of the proposed project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, architectural coatings, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, primarily during the grading and site preparation phases, resulting in PM₁₀ and PM_{2.5} emissions. The project is subject to NSAQMD Rule 226, Dust Control (NSAQMD 2024), which requires the submittal and approval of a Dust Suppression Control Plan to the NSAQMD prior to the disturbance of any topsoil. Compliance with Rule 226 would limit fugitive dust (PM₁₀ and PM_{2.5}) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an

² An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the EPA and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

³ CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects, including warehouses.

approximately 55% reduction of particulate matter. Internal combustion engines used by construction equipment, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. Table 3 shows the estimated maximum daily construction emissions associated with the construction of the project. Complete details of the emissions calculations are provided in Attachment A.

Table 3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
	Pounds per Day					
2026	1.41	12.90	13.19	0.03	3.56	1.92
2027	24.37	6.77	9.83	0.02	0.42	0.27
Maximum Daily Emissions	24.37	12.90	13.19	0.03	3.56	1.92
<i>NSAQMD Significance Threshold Level^b</i>	Level B (24-136)	Level A (<24)	NA	NA	Level A (<24)	NA
Significant (Yes/No or Potentially)?^c	Potentially	Potentially	No	No	Potentially	No

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM_{2.5} = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; NSAQMD = Northern Sierra Air Quality Management District.

Significance is based on NSAQMD thresholds. For Level A or B criteria, emissions are considered potentially significant and trigger mitigation. If the emissions exceed the Level C threshold, they are considered significant and require greater mitigation. After incorporation of feasible mitigation, emissions at Level A or B would be less than significant, and emissions at Level C (i.e., >136 pounds per day) would be significant and unavoidable.

Source: Attachment A.

As shown in Table 3, daily unmitigated emissions of ROG would exceed the NSAQMD level B thresholds, and NO_x and PM₁₀ would exceed the Level A threshold. No criteria air pollutants would be at Level C. The NSAQMD does not have significance criteria for SO_x, CO, or PM_{2.5}.

The following mitigation measures are required:

MM-AQ-1 Dust Control Plan. The project applicant shall prepare a Dust Control Plan pursuant to NSAQMD Rule 226 (Dust Control) and Title 18 of the TMC. The Dust Control Plan must be submitted to and approved by the Air Pollution Control Officer before topsoil is disturbed. The Air Pollution Control Officer may require use of palliatives, reseeding, or other means to minimize windblown dust. After commencement of development, if the approved elements of the dust control plan prove ineffective, the Air Pollution Control Officer may require additional control measures to be instituted.

MM-AQ-2 Criteria Air Pollutants. The project applicant shall implement the following measures in order to mitigate criteria air pollutants exceeding the NSAQMD level A and level B thresholds during project construction:

Level A.

- a. Alternatives to open burning of vegetative material will be used unless otherwise deemed infeasible by the District. Among suitable alternatives are chipping, mulching, or conversion to biomass fuel.
- b. Grid power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction.

Level B.

- c. Controls specified above (a and b) shall be implemented.
- d. Temporary traffic control shall be provided during all phases of the construction to improve traffic flow as deemed appropriate by local transportation agencies and/or Caltrans.
- e. Construction activities shall be scheduled to direct traffic flow to off-peak hours as much as practicable.

Note that NSAQMD-recommended mitigation for Level B also includes limitations on residential wood burning appliances. This is not applicable to the project.

With incorporation of the mitigation measures, the construction project-specific impacts will be reduced to **less-than-significant**.

Operations

Operation of the project would produce ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} emissions from area sources (consumer products, architectural coatings, landscaping equipment), energy sources (natural gas combustion for space and water heating), and mobile sources (vehicular traffic). Table 4 presents the maximum daily emissions associated with operation of the project in 2027. The values shown are the maximum summer and winter daily emissions results from CalEEMod. Complete details of the emissions calculations are provided in Attachment A.

Table 4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Emission Source	Pounds per Day					
Mobile	8.69	5.87	39.96	0.06	4.69	1.24
Area	0.71	0.01	0.87	<0.01	<0.01	<0.01
Energy	0.01	0.22	0.19	<0.01	0.02	0.02
Emergency Generator	0.27	1.21	0.69	<0.01	0.04	0.04
Total	9.69	7.32	41.71	0.06	4.75	1.30
NSAQMD Significance Threshold Level	Level A (<24)	Level A (<24)	NA	NA	Level A (<24)	NA
Threshold Exceeded?	Potentially	Potentially	No	No	Potentially	No

MEMORANDUM

SUBJECT: TRUCKEE REGIONAL LIBRARY PROJECT AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY
TECHNICAL MEMORANDUM

Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM₁₀ = particulate matter with an aerodynamic diameter equal to or less than 10 microns; PM_{2.5} = particulate matter with an aerodynamic diameter equal to or less than 2.5 microns; NSAQMD = Northern Sierra Air Quality Management District; <0.01 = reported value less than 0.01.

Source: Attachment A.

As shown in Table 4, emissions of ROG, NO_x, and PM₁₀ are projected to exceed the NSAQMD's Level A significance threshold. According to NSAQMD guidance, emissions exceeding the Level A significance threshold would contribute to existing nonattainment conditions and may also interfere with the region's ability to maintain ambient air quality standards if no mitigation is implemented. Therefore, following mitigation measures are required:

MM-AQ-3 Traffic Emissions. The project applicant shall implement the following measures in order to mitigate criteria air pollutants exceeding the NSAQMD level A thresholds during project operations:

Level A.

- a. The project shall provide for pedestrian access between bus service and major transportation points within the project, and between separate sections of the project, where feasible.

With incorporation of the mitigation measures, the operational project-specific impacts will be reduced to **less-than-significant**.

4.2.3 Would the project expose sensitive receptors to substantial pollutant concentrations?

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air-pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005).

The potential site-specific impacts from emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants (HAPs), respectively, as well as CO hotspots, are discussed below.

Health Impacts of Toxic Air Contaminants

Construction of the proposed project would involve the use of diesel-fueled vehicles used during site preparation, grading, building construction, paving, and application of architectural coatings. Diesel particulate matter (DPM) is the primary TAC of concern during these construction activities. Notably, on-road diesel trucks traveling to and from the proposed project would be less of a concern because they would not stay on the site for long durations. The following measures are required by state law to reduce DPM:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project. The project would not require the extensive use of heavy-duty construction equipment or diesel trucks in any one location over the duration of development, which would limit the exposure of any proximate individual sensitive receptor to TACs. Furthermore, due to the relatively short period of exposure at any individual sensitive receptor and minimal particulate emissions generated on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

In addition, according to the NSAQMD, no naturally occurring asbestos (NOA) has been mapped in the project area.

Health Impacts of Carbon Monoxide

Mobile source impacts occur on two scales of motion. Regionally, project-related travel would add to regional trip generation and increase vehicle miles traveled (VMT) within the local airshed and the Mountain Counties Air Basin (MCAB). Locally, project-generated traffic would be added to the County's roadway system near the project site. If such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds and is operating on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. However, because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the MCAB is steadily decreasing.

The NSAQMD thresholds of significance for local CO emissions are the 1-hour and 8-hour CAAQS of 20 ppm and 9 ppm, respectively. By definition, these represent levels that are protective of public health. As noted previously, Nevada County is currently designated attainment for both state and national CO ambient air quality standards, and the County typically experiences low background CO concentrations. The primary mobile-source criteria pollutant of local concern is CO which would occur due to construction activities.

The potential for the project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed based on the CO "hot spot" analysis conducted by the South Coast Air Quality Management District (SCAQMD) for their request to the EPA for designation as a CO attainment area (SCAQMD 2003). In SCAQMD's analysis, they modeled the four most congested intersections identified in their basin (South Coast Air Basin [SCAB]). The most congested intersection, Wilshire Boulevard and Veteran Avenue, had an average daily traffic volume of 100,000 vehicles/day.

The SCAQMD's analysis found that these intersections had an average 7.7 ppm 1-hour CO concentrations predicted by the models, which is only 38.5% of the 1-hour CO CAAQS of 20 ppm. Therefore, even the most congested intersections in SCAQMD's air basin would not experience a CO "hot spot". In addition, the assessments found a decrease in CO emission factors is indicative of a phase-out of older vehicles and increasingly strict emissions standards implemented by CARB. Continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion means that the potential for CO hotspots in the state is likely to decrease.

Therefore, the project would not generate traffic that would have an average daily traffic (ADT) greater than the 100,000 that was anticipated for the most congested intersection analyzed by SCAQMD and would not cause a CO hotspot. Consequently, implementation of the project would not result in CO concentrations in excess of the health protective CAAQS or NAAQS, and as such, would not expose sensitive receptors to significant pollutant concentrations or health effects. Therefore, impacts related to sensitive receptor exposure to substantial CO concentrations would be **less than significant**.

Health Effects of Criteria Air Pollutants

Construction and operation of the project would result in emissions that would exceed the NSAQMD Level A significance thresholds for ROG, NO_x, or PM₁₀. As previously discussed, the NSAQMD considers projects that would exceed the Level A significance thresholds to contribute to existing nonattainment conditions and may also interfere with the region's ability to maintain ambient air quality standards if no mitigation is implemented. ROG emissions would be associated with motor vehicles, construction equipment, and architectural coatings. However, implementation of Mitigation Measures MM-AQ-1 through MM-AQ-3 would reduce project-generated ROG, NO_x, and PM₁₀ emissions to a less-than-significant level. In addition, the VOCs in architectural coatings generally are of relatively low toxicity.

ROG and NO_x are precursors to O₃, for which the MCAB is designated as nonattainment with respect to the NAAQS and CAAQS. As discussed previously, the health effects associated with O₃ are generally associated with reduced lung function. The contribution of ROG and NO_x to regional ambient O₃ concentrations is the result of complex photochemistry. The increases in O₃ concentrations in the MCAB due to O₃ precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O₃ concentrations would also depend on the time of year that the ROG emissions would occur because exceedances of the O₃ NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O₃ precursors is speculative due to the lack of quantitative methods to assess this impact. Thus, a project's ROG and NO_x emissions are evaluated in the context of the NSAQMD significance thresholds, which define the levels of emissions that can occur without causing or contributing to violations of the NAAQS and CAAQS. In turn, the NAAQS and CAAQS define the pollutant concentrations above which adverse health effects are expected to occur. ROG and NO_x emissions associated with project construction and/or operation would exceed the NSAQMD Level A thresholds and would therefore require implementation of Mitigation Measures MM-AQ-1 through MM-AQ-3. After implementation of mitigation, emissions would be considered less than significant and thus it is not anticipated the project would contribute to regional O₃ concentrations and the associated health effects.

Construction and operation of the project would not contribute to exceedances of the NAAQS and CAAQS for NO₂. Health effects that result from NO₂ and NO_x include respiratory irritation, which could be experienced by nearby

receptors during the periods of heaviest use of off-road construction equipment. However, off-road construction equipment would be temporary, lasting the duration of construction (May 2026 - November 2027). Construction and operation of the project would not require use of any stationary sources (e.g., diesel generators, boilers) that would create substantial, localized NO_x impacts. Therefore, the project is not anticipated to result in potential health effects associated with NO₂ and NO_x because the emissions would not create or contribute to a violation of the NAAQS or CAAQS, which define the concentration of NO₂ above which adverse health effects are expected.

Construction and operation of the proposed project would also not exceed NSAQMD Level A threshold for PM₁₀ after implementation of mitigation and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the MCAB from coming into attainment for these pollutants. The project would also not result in substantial DPM emissions during construction and operation, and therefore, would not result in significant health effects related to DPM exposure. Additionally, the project would implement dust control strategies and be required to comply with NSAQMD Rule 226, which limits the amount of fugitive dust generated during construction. Therefore, it is not anticipated that the project would result in potential health effects associated related to particulate matter because the project would not create concentrations of particulate matter that exceed the NAAQS or CAAQS.

4.2.4 Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Based on available information, the project is not anticipated to result in other emissions that have not been addressed under Section 4.2.1 through 4.2.3, above. As such, this analysis focuses on the potential for the project to generate odors.

The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. In general, odors are highest near the source, but disperse quickly resulting in a reduced off-site exposure. Sensitive receptors located proximate to the proposed construction sites may be affected. However, construction of the proposed project would use typical construction techniques in compliance with NSAQMD rules and any odors associated with proposed project construction activities would be temporary and would cease upon completion of construction. Therefore, impacts associated with odors during construction would be **less than significant**.

In regards to operations, the project does not include not land uses typically associated with the generation of objectionable odors. Odors generated from operation of the project would consist of vehicle exhaust generated by employees and visitors traveling to and from the project site and through the periodic use of landscaping or maintenance equipment; however, these odors are not considered objectionable odors that would affect a substantial number of people. Therefore, impacts associated with odors generated from operations would be **less than significant**.

5 Greenhouse Gas Assessment

5.1 Threshold of Significance

The significance criteria used to evaluate Project impacts to GHG/climate change are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to GHG emissions would occur if the Project would:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of an individual project would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated at a project level under CEQA.

The State CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the State CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (California Natural Resources Agency [CNRA] 2018). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's (OPR's) Technical Advisory, titled "Discussion Draft CEQA and Climate Change Advisory," states that:

"[N]either the CEQA statute nor the CEQA Guidelines prescribe thresholds of significance or particular methodologies for performing an impact analysis. This is left to lead agency judgment and discretion, based upon factual data and guidance from regulatory agencies and other sources where available and applicable. Even in the absence of clearly defined thresholds for GHG emissions, such emissions must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact. (OPR 2018)

At this time, neither the NSAQMD nor the Town has adopted numerical thresholds of significance for GHG emissions that would apply to the project. The NSAQMD, however, recommends that all projects subject to CEQA review be considered in the context of GHG emissions and climate change impacts, and that CEQA documents include a quantification of GHG emissions from all project sources, as well as minimize and mitigate GHG emissions as feasible. The project would generate GHG emissions through short-term construction activities and long-term operational activities.

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. The Governor's Office of Planning and Research (OPR) Guidance does not include a quantitative threshold of significance to use for assessing a proposed development's GHG emissions under CEQA. Moreover, CARB has not established such a threshold or recommended a method for setting a threshold for proposed development-level analysis.

In light of the lack of established GHG emissions thresholds that would apply to the project, CEQA allows lead agencies to identify thresholds of significance applicable to a project that are supported by substantial evidence. Substantial evidence is defined in the CEQA statute to mean "facts, reasonable assumptions predicated on facts, and expert opinion supported by facts" (14 CCR 15384(b)).⁴ Substantial evidence can be in the form of technical studies, agency staff reports or opinions, expert opinions supported by facts, and prior CEQA assessments and planning documents. Therefore, to establish additional context in which to consider the order of magnitude of the project's GHG emissions, this analysis accounts for the following considerations by other government agencies and associations about what levels of GHG emissions constitute a cumulatively considerable incremental contribution to climate change:

- The Sacramento Metropolitan Air Quality Management District (SMAQMD) established thresholds, including 1,100 MT CO₂e per year for the construction phase of land use development projects, and identifies operational measures that should be applied to a project to demonstrate consistency. Furthermore, all projects must implement Tier 1 BMPs to demonstrate consistency with the Climate Change Scoping Plan. After implementation of Tier 1 BMPs, project emissions are compared to the operational land use screening levels table (equivalent to 1,100 MT CO₂e per year) (SMAQMD 2020).
- The Placer County Air Pollution Control District (PCAPCD) recommends a tiered approach to determine if a project's GHG emissions would result in a significant impact. First, project GHG emissions are compared to the de minimis level of 1,100 MT CO₂e per year. If a project does not exceed this threshold, it does not have significant GHG emissions. If the project exceeds the de minimis level and does not exceed the 10,000 MT CO₂e per year bright line threshold, then the project's GHG emissions can be compared to the efficiency thresholds. These thresholds are 4.5 MT CO₂e per-capita for residential projects in an urban area, and 5.5 MT CO₂e per-capita for residential projects in a rural area. For nonresidential development, the thresholds are 26.5 MT CO₂e per 1,000 square feet for projects in urban areas, and 27.3 MT CO₂e per 1,000 square feet for projects in rural areas. The PCAPCD bright-line GHG threshold of 10,000 MT CO₂e per year is also applied to land use projects' construction phase and stationary source projects' construction and operational phases. Generally, GHG emissions from a project that exceed 10,000 MT CO₂e per year would be deemed to have a cumulatively considerable contribution to global climate change (PCAPCD 2017).
- The Bay Area Air Quality Management District (BAAQMD) identifies operational measures that should be applied to all projects in order to not have cumulatively considerable GHG emissions. Projects are to comply with either several options which would result in a less than cumulatively considerable contribution and no further action

⁴ 14 CCR 15384 provides the following discussion: "Substantial evidence" as used in the Guidelines is the same as the standard of review used by courts in reviewing agency decisions. Some cases suggest that a higher standard, the so called "fair argument standard" applies when a court is reviewing an agency's decision whether or not to prepare an EIR. Public Resources Code section 21082.2 was amended in 1993 (Chapter 1131) to provide that substantial evidence shall include "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The statute further provides that "argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence."

would be required (BAAQMD 2022). Projects must include, at a minimum, no natural gas appliances or natural gas plumbing (in both residential and nonresidential development). Furthermore, transportation related measures would include including electric vehicle charging in compliance with CALGreen Tier 2 and achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15%) or meet a locally adopted Senate Bill (SB) 743 VMT target.

- CAPCOA's 900 MT CO₂e per year threshold was developed to meet the target identified by AB 32 of reducing emissions to 1990 levels by year 2020. Subsequent to CAPCOA identifying the 900 MT CO₂e per year threshold, SB 32 was passed and set a revised statewide reduction target to reduce emissions to 40% below 1990 levels by year 2030. Though the CAPCOA threshold does not consider the reduction targets set by SB 32, the CAPCOA threshold was developed with an aggressive project-level GHG emission capture rate of 90%. Due to the aggressive GHG emission capture rate, the CAPCOA threshold has been determined to be a viable threshold to reduce project GHG emissions and meet SB 32 targets beyond 2020.

As described above, the CO₂e per year screening level threshold is required to implement feasible on-site mitigation measures to reduce their impacts on climate change. Projects that meet or fall below CAPCOA's screening level threshold of 900 MT CO₂e per year of GHG emissions (the strictest applicable threshold) require no further analysis and are not required to implement mitigation measures to reduce GHG emissions. As such, the CAPCOA threshold of 900 MT CO₂e per year is used to assess whether or not the project would have an impact that would be considered peculiar to the project or the site.

5.2 Impact Analysis

5.2.1 Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potential impacts associated with the project's generation of GHGs, either directly or indirectly, during short-term construction and long-term operations have been evaluated herein.

Construction

CalEEMod 2022.1.1.30 was used to estimate potential project-generated GHG emissions during construction. Construction of the project would result in GHG emissions primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2.1 are also applicable for the estimation of construction-related GHG emissions. See Section 3.2.1 for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

Emissions from construction of the project are presented below in Table 5.

Table 5. Estimated Annual Construction GHG Emissions

	CO ₂	CH ₄	N ₂ O	R	CO ₂ e
Year	Metric Tons per Year				
2026	161.76	0.01	<0.01	0.03	163.04
2027	201.30	0.01	<0.01	0.04	202.63
	Total				365.67

Notes: GHG = greenhouse gas; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent, R=refrigerant; <0.01 = reported value less than 0.01.

Source: Attachment A.

The estimated GHG emissions from construction was estimated to be approximately 366 MT CO₂e for over the 19-month construction duration. Because neither the NSAQMD nor the Town have established a threshold of significance for construction-related GHG emissions, the significance of the project's GHG construction emissions is not further evaluated. As with project-generated construction criteria air pollutant emissions, GHG emissions generated during construction of the project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Therefore, impacts would be **less than significant**.

Operations

Following the completion of construction activities, the project would generate GHG emissions primarily from motor vehicle trips to and from the project site; energy use (generation of electricity consumed by the project); solid waste disposal; generation of electricity associated with water supply, treatment, and distribution and wastewater treatment; and refrigerants. Project-generated operational GHG emissions are summarized in Table 6. Details of the emission calculations are provided in Attachment A to this technical memorandum.

Table 6. Summary of Estimated Annual Operational GHG Emissions

	CO ₂	CH ₄	N ₂ O	R	CO ₂ e
Emissions Source	Metric Tons per Year				
Mobile	740.00	0.07	0.05	1.18	758.08
Area	0.29	<0.01	<0.01	N/A	0.29
Energy	91.58	0.01	<0.01	N/A	91.91
Water	0.61	0.02	<0.01	N/A	1.27
Waste	1.65	0.17	0.00	N/A	5.78
Refrigerants	N/A	N/A	N/A	0.01	<0.01
Emergency Generator	25.20	<0.01	<0.01	0.00	25.28
	Total				882.61
	<i>GHG Threshold</i>				<i>900</i>
	Threshold Exceeded?				No

Notes: GHG = greenhouse gas; MT = metric tons; CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent, R= refrigerant; N/A = data not available; <0.01 = reported value less than 0.01.

Source: Attachment A.

As shown in Table 6, estimated annual generated GHG emissions would be approximately 882 MT CO₂e per year as a result of project operation, which is below GHG threshold of 900 MT CO₂e per year. Therefore, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and this would represent a **less than significant** cumulative GHG impact.

5.2.2 Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As part of the Truckee 2040 General Plan Update, the Town has developed two climate plans, a Climate Action Plan and a Climate Adaptation Plan. The Climate Action Plan addresses how the Town will reduce GHG emissions, while the Climate Adaptation Plan addresses how the Town will adapt to a climate that is changing. Both plans were incorporated into the General Plan Update, with the Climate Action Plan housed in its own Climate Element, and the Adaptation Plan integrated into the Safety Element.

Climate Action Plan Element

The Climate Action Plan presents goals, policies, and actions that have been developed to reduce the Town's GHG emissions, consistent with the Town's and the state's emissions reduction targets and goals. Specifically, the Climate Action Plan Element includes a total of 11 goals, with the first nine goals focused on reducing GHG emissions from three major activity sectors that generate GHG emissions: building energy, transportation and land use, and solid waste. Goals CAP-1 through CAP-5 focus on reducing GHG emissions from transportation-related activity for existing residents and businesses as well as vehicle trips from future population and economic growth in the community. The project would meet Policies M-2.14 (Adequate Bike Parking at Major Facilities) and CAP-4.3 (EV-Ready Installation Infrastructure). The project would provide adequate bike parking and would also incorporate EV parking which would support the Town's goals for reducing transportation emissions consistent with local and state requirements. Furthermore, Goals CAP-7 and CAP-8 focus on reducing GHG emissions associated with energy use in existing buildings and new development in the Town. Overall, the project would be constructed consistent with all applicable requirements under California Building Standards Code (California Code of Regulations, Title 24) energy efficiency standards. As previously discussed, the project would also incorporate a solar photovoltaic panel system in order to offset a portion of the project's electricity consumption.

Nevada County Regional Transportation Plan

At the regional level, the NCTC adopted the 2015–2035 Nevada County RTP in order to establish the short-term (2016 to 2026) and long-term (2026 to 2036) regional transportation needs in Nevada County and to facilitate the efficient development and implementation of projects while maintaining public health and environmental quality (NCTC 2018). Notably, the NCTC is in the process of developing the 2045 update to the RTP. Although the RTP does not regulate land use or supersede the exercise of land use authority by NCTC's member jurisdictions (i.e., Town of Truckee or other cities within Nevada County), the RTP is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns and seeks to reduce air quality issues associated with future growth by increasing the efficiency of the transportation system and increasing alternative transportation options. Although, the project would increase traffic within the project area due to the influx of employees and visitors, short-term projections

have identified and accounted for such growth within the RTP as discussed in Section 4.2. Therefore, the project would not conflict with the RTP.

Project Consistency with State Reduction Targets and Scoping Plan

The California State Legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the State has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop The Scoping Plan, which provides the framework for actions to achieve the State's GHG emission targets. The Scoping Plan is required to be updated every five years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, and was updated in 2014, 2017, and most recently in 2022. While the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations,⁵ it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017), and the 2022 Scoping Plan for Achieving Carbon Neutrality (Third Update) outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress its making toward the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 Scoping Plan and Third Update that outline the strategy to achieve those targets, are the most applicable to the project.

The 2017 *Climate Change Scoping Plan Update* (Second Update) included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), increase stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and increase stringency of SB 375 targets. The Third Update builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022b). Many of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level. The project would support the Second and Third Update's goals by developing an energy efficient building. The project would also benefit from the gradual increase in energy efficiency

⁵ The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (California Natural Resources Agency 2009).

and reduction in GHG emissions due to the shift from fossil fuels that will be achieved through the statewide programs and measures.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the Third Update to include those that capture and store carbon in addition to those that reduce only anthropogenic sources of GHG emissions. However, the Third Update emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project-level, including those related to energy efficiency, reduced fossil fuel use, and renewable energy production. As demonstrated above, the project would not conflict with CARB's Scoping Plan, including the Third Update and with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals. Further, the project's consistency with the applicable measures and programs would assist in meeting the Town's contribution to GHG emission reduction targets in California.

Based on the preceding considerations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant**.

6 Energy Assessment

6.1 Threshold of Significance

According to Appendix G of the CEQA Guidelines, a project would have a significant effect on the environment with respect to energy if the project would:

2. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.
3. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

6.2 Impact Analysis

6.2.1 Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The primary energy source required for the project would be petroleum during short-term construction and during long-term operations. According to the U.S. Energy Information Administration, California used approximately 524 million barrels of petroleum in 2022, with the majority (628 million barrels) used for the transportation sector

(Energy Information Administration [EIA] 2024). This total annual consumption equates to a daily use of approximately 1.7 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 72 million gallons of petroleum per day, adding up to an annual consumption of 26 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled.

The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time.

Construction

Electricity

The electricity demand at any given time would vary throughout the project construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. The electricity used for construction activities would be temporary and minimal; it would be within the supply and infrastructure service capabilities of Truckee Donner Public Utility District (TDPUD) and it would not require additional local or regional capacity. The electricity demand during construction is anticipated to be minimal because the project would be built during a temporary 19-month construction period and construction activities would cease upon completion. The electricity used for project construction activities would be temporary and minimal.

Natural Gas

Natural gas is not anticipated to be required during project construction. Peak energy demand specifically applies to electricity; because natural gas (and petroleum) are liquid, these energy resources do not have the same constraints as electricity supply. Nonetheless, if any natural gas is needed, it would be sufficiently served by existing supply from Southwest Gas and would not require additional local or regional capacity. Any minor amounts of natural gas that may be consumed as a result of construction would be temporary and negligible and would not have an adverse effect.⁶

⁶ While no natural gas is anticipated to be used during construction because construction equipment is typically diesel fueled, the possibility of natural gas use is acknowledged in the event a natural-gas-fueled piece of equipment is used. However, as noted previously, all equipment was assumed to be diesel fueled in CalEEMod.

Petroleum

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered passenger vehicles.

Heavy-duty construction equipment of various types would be used during each phase of project construction. Attachment A lists the assumed equipment usage for each phase of construction.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO₂) emissions from each construction phase to gallons using the conversion factors for CO₂ to gallons of gasoline or diesel. Construction is estimated to occur in 2026 and 2027 based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton CO₂ per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO₂ per gallon (The Climate Registry 2023). The estimated diesel fuel usage from construction is shown in Table 7.

Table 7. Total Proposed Project Construction Petroleum Demand

Scenario	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Project Construction (2026-2027)	30,918	524	1,943	2,521
Total Petroleum Consumed for Project Construction				35,907

Source: Attachment A.

In summary, construction of the project is anticipated to consume 2,521 gallons of gasoline and 33,385 gallons of diesel over the course of construction. The project will be subject to CARB’s In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements.

Overall, while construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. Further, the petroleum consumed related to construction would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during project construction would be temporary and minimal and would not be wasteful or inefficient, impacts are determined to be **less than significant**.

Operation

Electricity

The project would require electricity for operation of the project. CalEEMod default values for electricity consumption for the project analysis which is presented in Attachment A. The increase in electricity demand was estimated at 230,408 kilowatt-hours per year. The project would also install a solar photovoltaic panel system in order to offset the project’s electricity consumption. The project would meet the 2022 California Building Energy Efficiency Standards (24 CCR, Part 6) at a minimum and it is anticipated that the project would be subject to the 2025 Title 24 code. However, the project’s operational energy emissions were assumed to meet the 2019 Title 24 Standards, the default assumptions in CalEEMod. The new library would be constructed consistent with all applicable requirements under Title 24 energy efficiency standards and would not be considered inefficient, wasteful, or unnecessary, and impacts would be **less than significant**.

Natural Gas

The operation would require natural gas for various purposes, including water heating. CalEEMod default values for natural gas consumption for the project analysis which is presented in Attachment A. According to these estimations, the project would consume approximately 833,318 thousand British thermal units per year.

Although natural gas consumption would increase due to the implementation of the proposed project, the building envelope; heating, ventilation, and air conditioning; lighting; and other systems shall be designed to maximize energy performance. The proposed project is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains voluntary energy measures that are applicable to the proposed project under the California Green Building Standards Code. Prior to proposed project approval, the project would meet Title 24 requirements applicable at that time, as required by state regulations through their plan review process. For these reasons, the natural gas consumption of the proposed project would not be considered inefficient or wasteful, and impacts would be **less than significant**.

Petroleum

During operations, fuel consumption resulting from the project would consist of the ten new employees traveling to and from the project site and routine testing and maintenance of the 600 kW diesel emergency generator. Petroleum fuel consumption associated with motor vehicles is a function of the VMT and fuel efficiency. Estimated fuel consumption for project operation is provided in Table 8.

Table 8. Petroleum Demand - Annual Operations

Scenario	On-Road Vehicles
	Gallons/year
Project	86,224

Source: Attachment A.

As depicted in Table 8, implementation of the project would lead to an increase in petroleum consumption of approximately 86,224 gallons of petroleum per year. In addition, the project would incorporate secure bike parking and would include EV charging electric infrastructure in parking areas consistent with State and Local requirements as identified at the time of plan submittal which would help reduce the project's petroleum consumption. As such, the petroleum consumption associated with the project would not be considered inefficient or wasteful, and impacts would be **less than significant**.

Renewable Energy Potential

As part of the project's design process, the project applicant considered how the project could potentially increase its reliance on renewable energy sources to meet the project's energy demand. Renewable energy sources that were considered for their potential to be used to power the project, consistent with the California Energy Commission's (CEC's) definition of eligible renewables, include biomass,⁷ geothermal, solar, wind, and small hydroelectric facilities.

Given the project's location in a densely forested area within the Town of Truckee and the nature of the project, there are considerable site constraints including limited land availability, incompatibility with onsite and surrounding land uses for project scale power generation facilities, unknown interconnection feasibility, compatibility with utility provider systems, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, wind, and hydroelectric renewable energy to be installed onsite. However, it is assumed that the electricity provider will incorporate more power generated by renewable resources in future years. Regarding solar power, the project would install a solar photovoltaic panel system to offset the project's electricity consumption.

As explained above, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum during project construction or operation. Impacts would be **less than significant**.

6.2.2 Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (California Code of Regulations, Title 24) 2022 standards. Part 6 of Title 24 establishes energy efficiency standards for residential and non-residential buildings to reduce energy demand and consumption. Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under the California Green Building Standards Code. As discussed under criterion "a" above, the project would result in a temporary demand for petroleum during construction and minimal electricity, natural gas, and petroleum demand for long-term operations. Overall, the project would meet and exceed the applicable California code requirements for energy efficiency.

⁷ The CEC's definition of biomass as an eligible renewable is based on the generation of electricity using biomass as a fuel. Although the project would not use biomass to generate electricity per the CEC definition, it would use woody biomass to beneficially replace natural gas for heating within the connected facilities.

Because the project would comply with and exceed the existing energy standards and regulations, the project would result in a **less than significant** impact associated with the potential to conflict with energy standards and regulations.

7 Conclusions

Criteria air pollutant emissions generated during construction and operation of the project would not exceed the NSAQMD's significance thresholds or result in a cumulatively considerable increase in emissions after implantation of mitigation. Similarly, the project would not expose sensitive receptors to substantial pollutant concentrations or result in other emissions including odors adversely affecting a substantial number of people. Therefore, the project would result in a less than significant impact.

Regarding GHGs, estimated construction and operational emissions would be below the respective GHG threshold. In addition, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs including the Towns Climate Action Plan. Accordingly, potential cumulative GHG impacts would be less than significant.

The project would also comply with and exceed the existing energy standards and regulations and would not result in in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum during project construction or operation.

As such, the project would not result in significant impacts to air quality, GHG emissions, or energy consumption.

Sincerely,



Ian McIntire
Air Quality Specialist

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MEMORANDUM

SUBJECT: TRUCKEE REGIONAL LIBRARY PROJECT AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY
TECHNICAL MEMORANDUM

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Attachment A

CalEEMod Outputs

Truckee Regional Library Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Truckee Regional Library
Construction Start Date	5/15/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.00
Precipitation (days)	55.0
Location	39.32690558616372, -120.17723063033878
County	Nevada
City	Truckee
Air District	Northern Sierra AQMD
Air Basin	Mountain Counties
TAZ	262
EDFZ	0-H
Electric Utility	Truckee Donner Public Utilities District
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.30

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
Library	20.1	1000sqft	0.46	20,100	2,000	0.00	—	—

Parking Lot	26.0	1000sqft	0.60	0.00	0.00	0.00	—	—
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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	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.68	1.41	12.9	13.2	0.03	0.57	3.00	3.56	0.52	1.40	1.92	—	2,935	2,935	0.10	0.12	1.59	2,975
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	24.4	24.4	7.14	9.84	0.02	0.28	0.17	0.45	0.26	0.04	0.30	—	2,140	2,140	0.09	0.04	0.02	2,154
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.88	1.79	3.96	5.70	0.01	0.15	0.23	0.37	0.13	0.09	0.22	—	1,216	1,216	0.05	0.02	0.22	1,224
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.34	0.33	0.72	1.04	< 0.005	0.03	0.04	0.07	0.02	0.02	0.04	—	201	201	0.01	< 0.005	0.04	203

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	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2026	1.68	1.41	12.9	13.2	0.03	0.57	3.00	3.56	0.52	1.40	1.92	—	2,935	2,935	0.10	0.12	1.59	2,975
2027	0.92	0.78	6.74	9.83	0.02	0.25	0.17	0.42	0.23	0.04	0.27	—	2,145	2,145	0.09	0.04	0.88	2,160
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.95	0.80	7.14	9.84	0.02	0.28	0.17	0.45	0.26	0.04	0.30	—	2,140	2,140	0.09	0.04	0.02	2,154
2027	24.4	24.4	6.77	9.77	0.02	0.25	0.17	0.42	0.23	0.04	0.27	—	2,135	2,135	0.08	0.04	0.02	2,149
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.46	0.39	3.45	4.51	0.01	0.14	0.23	0.37	0.13	0.09	0.22	—	977	977	0.04	0.02	0.19	985
2027	1.88	1.79	3.96	5.70	0.01	0.15	0.09	0.24	0.13	0.02	0.16	—	1,216	1,216	0.05	0.02	0.22	1,224
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.08	0.07	0.63	0.82	< 0.005	0.03	0.04	0.07	0.02	0.02	0.04	—	162	162	0.01	< 0.005	0.03	163
2027	0.34	0.33	0.72	1.04	< 0.005	0.03	0.02	0.04	0.02	< 0.005	0.03	—	201	201	0.01	< 0.005	0.04	203

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	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.1	9.69	6.43	37.4	0.06	0.13	4.62	4.75	0.13	1.18	1.30	11.2	6,617	6,628	1.61	0.37	21.0	6,800
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.47	8.97	7.31	40.8	0.06	0.13	4.62	4.75	0.12	1.18	1.30	11.2	6,339	6,350	1.72	0.42	0.62	6,518
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.71	7.32	5.94	30.9	0.05	0.12	3.50	3.62	0.11	0.89	1.01	11.2	5,179	5,190	1.57	0.32	7.19	5,331
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.41	1.34	1.08	5.64	0.01	0.02	0.64	0.66	0.02	0.16	0.18	1.85	857	859	0.26	0.05	1.19	883
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2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	9.09	8.69	4.98	35.7	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,919	5,919	0.44	0.36	21.0	6,059
Area	0.72	0.71	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.59	3.59	< 0.005	< 0.005	—	3.61
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	553	553	0.04	< 0.005	—	555
Water	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Waste	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Stationary	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Total	10.1	9.69	6.43	37.4	0.06	0.13	4.62	4.75	0.13	1.18	1.30	11.2	6,617	6,628	1.61	0.37	21.0	6,800
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.58	8.12	5.87	40.0	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,645	5,645	0.55	0.41	0.54	5,780
Area	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	553	553	0.04	< 0.005	—	555
Water	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Waste	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Stationary	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Total	9.47	8.97	7.31	40.8	0.06	0.13	4.62	4.75	0.12	1.18	1.30	11.2	6,339	6,350	1.72	0.42	0.62	6,518
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	6.71	6.37	4.38	29.5	0.04	0.06	3.50	3.56	0.05	0.89	0.95	—	4,470	4,470	0.40	0.31	7.11	4,579
Area	0.64	0.64	< 0.005	0.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.77	1.77	< 0.005	< 0.005	—	1.78
Energy	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	553	553	0.04	< 0.005	—	555
Water	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Waste	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Stationary	0.33	0.30	1.33	0.76	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	152	152	0.01	< 0.005	0.00	153
Total	7.71	7.32	5.94	30.9	0.05	0.12	3.50	3.62	0.11	0.89	1.01	11.2	5,179	5,190	1.57	0.32	7.19	5,331
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.23	1.16	0.80	5.39	0.01	0.01	0.64	0.65	0.01	0.16	0.17	—	740	740	0.07	0.05	1.18	758
Area	0.12	0.12	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.6	91.6	0.01	< 0.005	—	91.9
Water	—	—	—	—	—	—	—	—	—	—	—	0.20	0.41	0.61	0.02	< 0.005	—	1.27
Waste	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.17	0.00	—	5.78
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Stationary	0.06	0.05	0.24	0.14	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	25.2	25.2	< 0.005	< 0.005	0.00	25.3
Total	1.41	1.34	1.08	5.64	0.01	0.02	0.64	0.66	0.02	0.16	0.18	1.85	857	859	0.26	0.05	1.19	883

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

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 Equipment	0.52	0.44	3.74	5.54	0.01	0.19	—	0.19	0.17	—	0.17	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
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	0.02	0.01	0.11	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	25.9	25.9	< 0.005	< 0.005	—	26.0
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.28	4.28	< 0.005	< 0.005	—	4.30
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.03	0.03	0.02	0.29	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	47.9	47.9	< 0.005	< 0.005	0.20	48.7
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.6	43.6	< 0.005	0.01	0.11	45.7
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.36	1.36	< 0.005	< 0.005	< 0.005	1.38
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	1.38
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	0.23
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

3.3. Grading (2026) - Unmitigated

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

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 Equipment	1.61	1.35	12.1	12.6	0.02	0.55	—	0.55	0.51	—	0.51	—	2,237	2,237	0.09	0.02	—	2,245

Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
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	0.09	0.07	0.66	0.69	< 0.005	0.03	—	0.03	0.03	—	0.03	—	123	123	< 0.005	< 0.005	—	123
Dust From Material Movement	—	—	—	—	—	—	0.15	0.15	—	0.07	0.07	—	—	—	—	—	—	—
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	0.02	0.01	0.12	0.13	< 0.005	0.01	—	0.01	0.01	—	0.01	—	20.3	20.3	< 0.005	< 0.005	—	20.4
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
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	0.04	0.04	0.03	0.39	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	63.8	63.8	< 0.005	< 0.005	0.26	65.0

Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.6	43.6	< 0.005	0.01	0.11	45.7
Hauling	0.03	0.02	0.74	0.18	< 0.005	0.01	0.16	0.17	0.01	0.04	0.06	—	591	591	0.01	0.09	1.21	619
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.29	3.29	< 0.005	< 0.005	0.01	3.34
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.39	2.39	< 0.005	< 0.005	< 0.005	2.50
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.4	32.4	< 0.005	0.01	0.03	33.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.54	0.54	< 0.005	< 0.005	< 0.005	0.55
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.40	0.40	< 0.005	< 0.005	< 0.005	0.41
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	< 0.005	5.61

3.5. Building Construction (2026) - Unmitigated

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

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 Equipm ent	0.85	0.71	6.87	8.96	0.02	0.28	—	0.28	0.25	—	0.25	—	1,876	1,876	0.08	0.02	—	1,882
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.85	0.71	6.87	8.96	0.02	0.28	—	0.28	0.25	—	0.25	—	1,876	1,876	0.08	0.02	—	1,882
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	2.53	3.30	0.01	0.10	—	0.10	0.09	—	0.09	—	690	690	0.03	0.01	—	692
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	0.06	0.05	0.46	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	114	114	< 0.005	< 0.005	—	115
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	0.10	0.09	0.06	0.87	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	144	144	0.01	0.01	0.60	146
Vendor	0.01	0.01	0.19	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	131	131	< 0.005	0.02	0.34	137
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	0.09	0.08	0.08	0.80	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	0.01	0.01	0.02	135
Vendor	0.01	0.01	0.20	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	131	131	< 0.005	0.02	0.01	137
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	0.03	0.03	0.03	0.29	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	49.7	49.7	< 0.005	< 0.005	0.09	50.5
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	48.1	48.1	< 0.005	0.01	0.05	50.4
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	0.01	0.01	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.22	8.22	< 0.005	< 0.005	0.02	8.36
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.97	7.97	< 0.005	< 0.005	0.01	8.34
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. Building Construction (2027) - Unmitigated

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

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 Equipm ent	0.82	0.69	6.51	8.94	0.02	0.25	—	0.25	0.23	—	0.23	—	1,876	1,876	0.08	0.02	—	1,882
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipm ent	0.82	0.69	6.51	8.94	0.02	0.25	—	0.25	0.23	—	0.23	—	1,876	1,876	0.08	0.02	—	1,882
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.44	0.37	3.49	4.80	0.01	0.13	—	0.13	0.12	—	0.12	—	1,006	1,006	0.04	0.01	—	1,009
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	0.08	0.07	0.64	0.88	< 0.005	0.02	—	0.02	0.02	—	0.02	—	167	167	0.01	< 0.005	—	167
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	0.09	0.08	0.05	0.82	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	141	141	0.01	0.01	0.56	144
Vendor	0.01	0.01	0.18	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	128	128	< 0.005	0.02	0.32	134
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	0.09	0.08	0.07	0.75	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	0.01	0.01	0.01	133
Vendor	0.01	0.01	0.19	0.07	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	128	128	< 0.005	0.02	0.01	134
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	0.05	0.04	0.03	0.40	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	71.2	71.2	< 0.005	< 0.005	0.13	72.3
Vendor	< 0.005	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.6	68.6	< 0.005	0.01	0.07	71.7
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	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.8	11.8	< 0.005	< 0.005	0.02	12.0
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.4	11.4	< 0.005	< 0.005	0.01	11.9

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
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3.9. Paving (2027) - Unmitigated

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

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.70	0.58	4.98	6.25	0.01	0.20	—	0.20	0.19	—	0.19	—	973	973	0.04	0.01	—	976
Paving	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.27	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.3	53.3	< 0.005	< 0.005	—	53.5
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.82	8.82	< 0.005	< 0.005	—	8.86
Paving	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.58	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	102	102	< 0.005	< 0.005	0.01	103
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.66	5.66	< 0.005	< 0.005	0.01	5.75
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.94	0.94	< 0.005	< 0.005	< 0.005	0.95
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

3.11. Architectural Coating (2027) - Unmitigated

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

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.18	0.15	1.11	1.50	< 0.005	0.03	—	0.03	0.02	—	0.02	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	24.2	24.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.75	9.75	< 0.005	< 0.005	—	9.79
Architectural Coatings	1.33	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.62
Architectural Coatings	0.24	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.17	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	< 0.005	29.5
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.64
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	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.27
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

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	9.09	8.69	4.98	35.7	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,919	5,919	0.44	0.36	21.0	6,059
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	9.09	8.69	4.98	35.7	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,919	5,919	0.44	0.36	21.0	6,059

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	8.58	8.12	5.87	40.0	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,645	5,645	0.55	0.41	0.54	5,780
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	8.58	8.12	5.87	40.0	0.06	0.07	4.62	4.69	0.07	1.18	1.24	—	5,645	5,645	0.55	0.41	0.54	5,780
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	1.23	1.16	0.80	5.39	0.01	0.01	0.64	0.65	0.01	0.16	0.17	—	740	740	0.07	0.05	1.18	758
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	1.23	1.16	0.80	5.39	0.01	0.01	0.64	0.65	0.01	0.16	0.17	—	740	740	0.07	0.05	1.18	758

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	258	258	0.02	< 0.005	—	259
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	28.3	28.3	< 0.005	< 0.005	—	28.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	286	286	0.02	< 0.005	—	287
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	258	258	0.02	< 0.005	—	259
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	28.3	28.3	< 0.005	< 0.005	—	28.4

Total	—	—	—	—	—	—	—	—	—	—	—	—	286	286	0.02	< 0.005	—	287
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	42.7	42.7	< 0.005	< 0.005	—	42.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.68	4.68	< 0.005	< 0.005	—	4.70
Total	—	—	—	—	—	—	—	—	—	—	—	—	47.4	47.4	< 0.005	< 0.005	—	47.6

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	267	267	0.02	< 0.005	—	268
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	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	267	267	0.02	< 0.005	—	268
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	267	267	0.02	< 0.005	—	268
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	0.02	0.01	0.22	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	267	267	0.02	< 0.005	—	268
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.2	44.2	< 0.005	< 0.005	—	44.3
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	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	44.2	44.2	< 0.005	< 0.005	—	44.3

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.16	0.14	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.59	3.59	< 0.005	< 0.005	—	3.61
Total	0.72	0.71	0.01	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.59	3.59	< 0.005	< 0.005	—	3.61
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.43	0.43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.56	0.56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.12	0.12	< 0.005	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.21	2.48	3.69	0.12	< 0.005	—	7.67
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Library	—	—	—	—	—	—	—	—	—	—	—	0.20	0.41	0.61	0.02	< 0.005	—	1.27
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.20	0.41	0.61	0.02	< 0.005	—	1.27

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	9.98	0.00	9.98	1.00	0.00	—	34.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.17	0.00	—	5.78
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1.65	0.00	1.65	0.17	0.00	—	5.78

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08	0.08
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01

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)

Equipment Type	TOG	ROG	NOx	CO	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

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

Equipm ent Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Total	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Total	0.30	0.27	1.21	0.69	< 0.005	0.04	0.00	0.04	0.04	0.00	0.04	0.00	139	139	0.01	< 0.005	0.00	139
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.06	0.05	0.24	0.14	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	25.2	25.2	< 0.005	< 0.005	0.00	25.3

Total	0.06	0.05	0.24	0.14	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	25.2	25.2	< 0.005	< 0.005	0.00	25.3
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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)

Equipm ent Type	TOG	ROG	NOx	CO	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)

Vegetati on	TOG	ROG	NOx	CO	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)

Land Use	TOG	ROG	NOx	CO	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	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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 Preparation	Site Preparation	5/15/2026	5/31/2026	5.00	11.0	—
Grading	Grading	6/1/2026	6/26/2026	5.00	20.0	—
Building Construction	Building Construction	6/27/2026	10/1/2027	5.00	330	—
Paving	Paving	10/2/2027	10/29/2027	5.00	20.0	—
Architectural Coating	Architectural Coating	10/30/2027	11/26/2027	5.00	20.0	—

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 Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	8.00	82.0	0.20
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	6.00	10.5	LDA,LDT1,LDT2
Site Preparation	Vendor	2.00	7.02	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	8.00	10.5	LDA,LDT1,LDT2
Grading	Vendor	2.00	7.02	HHDT,MHDT
Grading	Hauling	8.75	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.0	10.5	LDA,LDT1,LDT2
Building Construction	Vendor	6.00	7.02	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	14.0	10.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	7.02	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.00	10.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	7.02	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	0.00	0.00	HHDT
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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)
Architectural Coating	0.00	0.00	30,150	10,050	1,560

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 (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	5.50	0.00	—
Grading	0.00	1,397	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.60

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Library	0.00	0%
Parking Lot	0.60	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	453	0.03	< 0.005
2027	0.00	453	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
Library	1,448	1,610	0.00	461,508	5,817	6,466	0.00	1,853,792
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

5.10.2. 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	30,150	10,050	1,560

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)
Library	207,632	453	0.0330	0.0040	833,318
Parking Lot	22,776	453	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)
Library	628,907	19,666
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Library	18.5	—
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
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Library	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Library	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Library	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Library	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

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
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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	200	805	0.30

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	31.3	annual days of extreme heat
Extreme Precipitation	8.60	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	18.2	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 (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters. 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	N/A	N/A	N/A	N/A
Extreme Precipitation	1	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	1	1	1	2
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	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 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	57.8
AQ-PM	42.6
AQ-DPM	42.8
Drinking Water	23.1
Lead Risk Housing	20.0
Pesticides	46.0
Toxic Releases	42.4
Traffic	25.9
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	54.5
Haz Waste Facilities/Generators	82.5
Impaired Water Bodies	23.9
Solid Waste	95.3

Sensitive Population	—
Asthma	19.9
Cardio-vascular	1.98
Low Birth Weights	24.6
Socioeconomic Factor Indicators	—
Education	43.1
Housing	12.8
Linguistic	18.9
Poverty	45.7
Unemployment	0.20

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	60.22071089
Employed	97.89554729
Median HI	61.54240985
Education	—
Bachelor's or higher	52.02104453
High school enrollment	4.38855383
Preschool enrollment	23.02065957
Transportation	—
Auto Access	42.71782369
Active commuting	56.66623893
Social	—
2-parent households	75.63197742
Voting	76.8766842

Neighborhood	—
Alcohol availability	81.44488644
Park access	43.28243295
Retail density	30.16809958
Supermarket access	27.06274862
Tree canopy	96.58668035
Housing	—
Homeownership	47.00372129
Housing habitability	60.06672655
Low-inc homeowner severe housing cost burden	96.88181702
Low-inc renter severe housing cost burden	42.33286283
Uncrowded housing	55.74233286
Health Outcomes	—
Insured adults	32.84999358
Arthritis	0.0
Asthma ER Admissions	99.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	85.5
Cognitively Disabled	93.6
Physically Disabled	98.1
Heart Attack ER Admissions	98.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0

Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	19.7
SLR Inundation Area	0.0
Children	29.7
Elderly	96.3
English Speaking	52.8
Foreign-born	54.0
Outdoor Workers	17.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.7
Traffic Density	29.3
Traffic Access	0.0
Other Indices	—
Hardship	30.7
Other Decision Support	—
2016 Voting	59.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	17.0

Healthy Places Index Score for Project Location (b)	62.0
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 would begin mid-May 2026
Construction: Off-Road Equipment	Updated per applicant.
Construction: Trips and VMT	Updated per applicant.
Operations: Vehicle Data	Project would be operational weekdays and Saturday.
Construction: Dust From Material Movement	4,890.87 CY of cut and 3,494.12 CY of fill
Operations: Emergency Generators and Fire Pumps	600 kW emergency generator

Construction				
Source	Percent	Total MTCO2	Gallons	
			Diesel	Gasoline
2026				
Off-road	85.8%	139	13,614	
Electricity	0.0%	0		
Worker	5.6%	9		1,033
Vendor	5.3%	9	841	
Hauling	3.3%	5	524	
Onsite Truck	0.0%	0		
Total	100.0%	162	14,978	1,033
2027				
Off-road	87.9%	176.68	17,305	
Electricity	0.0%	0		
Worker	6.5%	13.07		1,488
Vendor	5.6%	11.26	1,102	
Hauling	0.0%	0	0	
Onsite Truck	0.0%	0		
Total	100.0%	201	18,407	1,488

Total Proposed Project Construction Petroleum Demand

	Off-road	Hauling	Vendor	Worker	
Year					
	2026	13,614	524	841	1,033
	2027	17,305	0	1,102	1,488
Total		30,918	524	1,943	2,521
					35,907
	Gas		2,521		
	Diesel		33,385		
			35,907		