

Alameda County Fire Department

Alameda County Fire Station 22 Replacement Project

Final Initial Study/Mitigated Negative Declaration

September 2025

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PANORAMA ENVIRONMENTAL, INC.

Alameda County Fire Department

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Final Initial Study/Mitigated Negative Declaration

September 2025

Prepared for:

Alameda County Fire Department

6363 Clark Avenue

Dublin CA 94568

Prepared by:

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1 Mitigated Negative Declaration

1.1 Project Summary

1. **Project Title**

   Alameda County Fire Station 22 Replacement Project

2. **Lead Agency name and address**

   Alameda County Fire Department
   6363 Clark Ave.
   Dublin CA 94568

3. **Contact person and phone number**

   Eric Moore, Fire Chief
   Alameda County Fire Department
   510-693-3402

4. **Location**

   The existing Fire Station 22 is within a residential and commercial area in the town of San Lorenzo in unincorporated Alameda County, California. The existing fire station is on a 2.2-acre parcel (Assessor's Parcel Number 412-31-14) at 427 Paseo Grande. The proposed project would be constructed on one parcel, totaling 0.93 acres (Assessor's Parcel Number 412-31-93), on Paseo Grande between Paseo Largavista and Hesperian Boulevard.

5. **Project sponsor's name and address**

   Alameda County Fire Department
   6363 Clark Ave, Dublin CA 94568

6. **General Plan designation and zoning**

   The Project is zoned San Lorenzo Village Center Specific Plan (SLZSP) C1: Retail Business District (County of Alameda, n.d.). The project site land use is designated as Commercial (County of Alameda 2010).

7. **Description of the proposed project**

   The Alameda County Fire Station 22 Replacement Project would construct a new fire station on Paseo Grande, approximately 300 feet from the existing fire station.

8. **Surrounding land uses and setting**

   The proposed Fire Station 22 site is surrounded by residential land use to the west and commercial land use to the north, east, and south. The proposed

project site is a vacant lot adjacent to residential neighborhoods and commercial buildings.

9. **Other public agencies whose approval is required**

   The project will require a building permit from Alameda County. If the project's disturbance area exceeds 1 acre, the project would require a Construction Stormwater General Permit from the State Water Resources Control Board

10. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    The Lisjan Nation has requested consultation under AB 52. The Alameda Fire Department has engaged in consultation with Lisjan Nation in compliance with AB 52. Additional information on the results of the Native American consultation is provided in Section 3.2.18: Tribal Cultural Resources

1.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the proposed project, but impacts would be mitigated to a less-than-significant level as indicated in the Initial Study.

Fire Station 22

☐ Aesthetics	☐ Agricultural and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☒ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Utilities and Service Systems
☒ Tribal Cultural Resources	☐ Wildfire	☒ Mandatory Findings of Significance

1.3 Environmental Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the Project MAY have a "potentially significant impact" or "potentially significant impact unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required. ☐

Pursuant to Section 21082.1 of the California Environmental Quality Act, the Alameda County Fire Department (ACFD) has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the proposed project and finds that the Initial Study and Mitigated Negative Declaration reflect the independent judgement of the ACFD. The ACFD further finds that the project mitigation measures shall be implemented as stated in this Mitigated Negative Declaration.

Signed by:
William McDonald
91A808ADA67643E...

Signature	Name/Title	Date
	William McDonald Director/Fire Chief	11/21/2025

2 Project Description

2.1 Overview

The Alameda County Fire Department (ACFD) operates 28 fire stations within Alameda County and serves a population of approximately 394,000 people. In November 2020, voters approved Measure X, authorizing the ACFD to issue up to $90 million in general obligation bonds to repair, upgrade, and replace outdated fire stations in the unincorporated area of the county (Alameda County Fire Department (ACFD), n.d.). Upgrading and repairing outdated and aging fire stations would help ACFD to address its priorities, including reducing 911 emergency fire and medical response times and enhancing wildfire protection and disaster response. ACFD proposes to construct a new Fire Station 22, as described in more detail below.

Alameda County Fire Station 22 was constructed in 1940 as the original fire station for the San Lorenzo Village Fire Department, which was consolidated into the Eden Consolidated Fire Protection district in 1976. An addition to Alameda County Fire Station 22 was constructed in 1963. Alameda Fire Station 22 currently does not meet ACFD's accessibility, safety, or facility needs. The purpose of the Alameda County Fire Station 22 Replacement Project (proposed project) is to construct a new fire station on Paseo Grande, approximately 300 feet from the existing fire station.

2.2 Project Location and Existing Uses

The existing Fire Station is within a residential and commercial area in San Lorenzo in unincorporated Alameda County, California. The existing fire station is on a 2.2-acre parcel (Assessor's Parcel Number 412-31-14) at 427 Paseo Grande, as shown in Figure 2.2-1. The existing Fire Station 22 is leased from a homeowner's association that owns and manages the property. The proposed project would be constructed on one parcel, totaling 0.93 acres (Assessor's Parcel Number 412-31-93), on Paseo Grande between Paseo Largavista and Hesperian Boulevard (as shown in Figure 2.2-1). In 2013, the commercial buildings on the eastern parcel were demolished. The project site is paved and contains one of the former commercial building foundations. A Pacific Gas & Electric (PG&E) powerline runs north to south on the western side of the site. Buildings surrounding the project site include residences to the west and a public storage facility to the north.

The existing fire station consists of a 3,967 square-foot building and parking lot. The building contains shops, offices, a kitchen and dining areas, dorm rooms, lockers, exercise rooms, and four apparatus bays. Building features include a 75-kilowatt generator and a 220-volt air compressor. The fire station has three employees.

Figure 2.2-1 Fire Station 22 Project Site Location



Fire Station 22 responds to approximately 192 emergency calls per month. Response times to emergency calls average approximately 4 minutes. Access to the project site is provided via a driveway on Paseo Grande. The project site is zoned SLZSP-C1 Retail Business District by Alameda County (Alameda County Planning Department 2004).

2.3 Project Components

2.3.1 New Fire Station

The proposed project would construct a 7,688-square-foot, 25-foot-tall, one-story fire station on the project site on Paseo Grande. The new fire station would have a lobby, personnel offices, workstations, two apparatus bays, kitchen and dining spaces, crew dormitories and lockers, a training room, and storage rooms. The proposed facility would include additional building space and parking to accommodate ACFD's current and future operational needs.

As shown in Figure 2.3-1, the site exterior would include an outdoor training court. A 120-square-foot trash and recycling enclosure would be constructed on the northwest side of the new fire station. In addition, an outdoor patio with a barbeque would be constructed adjacent to the kitchen area, and an outdoor fitness area would be adjacent to the physical training room.

The new diesel fueling tank would feature a 1000-gallon aboveground tank, with pumps that would dispense diesel and gas to ACFD fleet vehicles and equipment. The fueling tank would be within an enclosure adjacent the trash and recycling enclosure. A new 200-kilowatt emergency generator with a belly tank would be placed on a concrete pad east of the new building. The emergency generator would be within an enclosure and would be tested weekly.

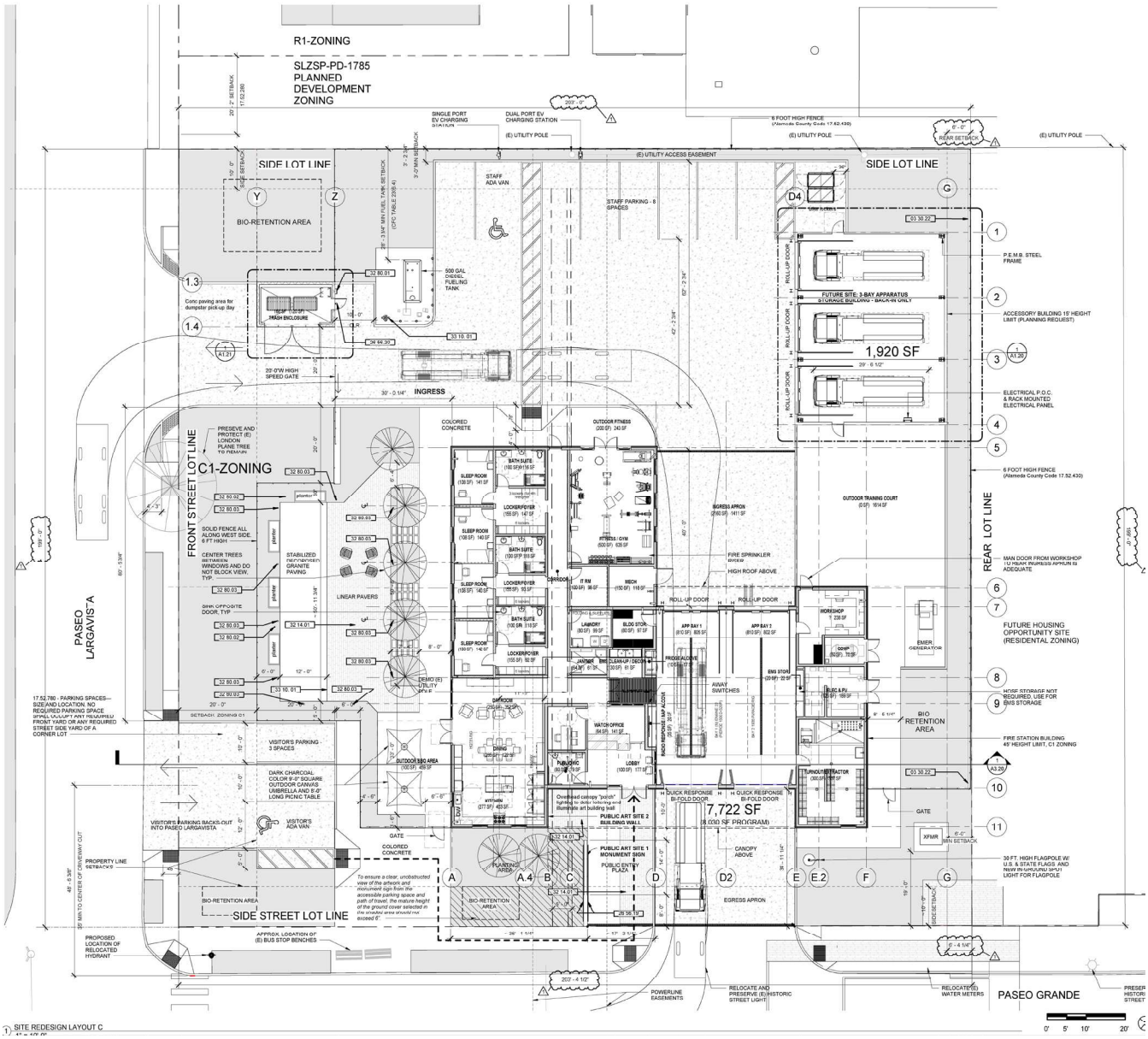
2.3.1 Site Circulation and Parking

Access to the fire station would be via Paseo Largavista and Paseo Grande. Site ingress/egress would be facilitated via two driveways connecting with Paseo Largavista. The existing 47-foot-wide northern driveway on Paseo Largavista would provide ingress/egress for staff vehicles and fire engines, and the existing 37-foot-wide southern driveway connecting with Paseo Largavista would provide access for public parking. Egress for the fire engines would be provided by a newly expanded36-foot-wide driveway connecting with Paseo Grande.

The 7,670 square-foot parking lot would have nine parking spaces, consisting of three spaces for staff vehicles and three spaces for public visitors. Two of the parking spaces would be ADA compliant. In accordance with the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle Charging Stations at Alameda County Facilities (Alameda County 2018), two of the parking spaces would be electric vehicle charging station spaces.

The new fire station would contain one two-bay apparatus bay area and one three-bay apparatus bay area. The three-bay apparatus bay area would have space for three fire engines. The 2-bay apparatus bay area would have space for one Type 1 fire engine and a parade rig.

Figure 2.3-1 Fire Station 22 Site Plan



2.3.2 Lighting, Landscaping and Fencing

Lighting would be installed on the new building's exterior and along pedestrian pathways around the project site. Ground-mounted uplighting would be installed around the flagpole near the new fire station entrance. Lighting would conform with the Alameda County Dark Skies Ordinance, which aims to minimize artificial outdoor light and prevent excessive light and glare on private properties and public roadways (Alameda County, n.d.-c). Lighting and landscape components specific to each fire station are described below.

Two streetlights are located along the sidewalk on Paseo Grande. One of the streetlights would remain in place and one would be preserved and relocated.

One London plane tree is located on the western side of the property along Paseo Largavista and would not be removed. Approximately 20 trees would be planted around the project site. The proposed project would feature landscaping improvements around the project site consisting of bioswales for stormwater retention in the northwest, west, and southern and planting areas around the majority of the site perimeter and surrounding the garden, gaming, and gathering space as well as the outdoor training court. A approximately 360-foot-long and 6-foot-tall privacy fence would be installed around the project site perimeter in accordance with Alameda County Code section 17.52.430.

2.4 Project Construction

2.4.1 Schedule and Workforce

Project construction is anticipated to begin in 2026 and last approximately 18 months. Construction activities would occur between 7 a.m. and 5 p.m., Monday through Friday. Weekend work would occur on an as needed basis and would occur between 8 a.m. and 5 p.m. An average of 20 construction workers is expected to be on site daily during project construction, with a maximum of 50 workers on site at any one time.

2.4.2 Equipment

The types of construction equipment anticipated to be used for construction of the fire station is listed in Table 2.4-1, below.

Table 2.4-1 Proposed Project Construction Equipment

Phase	Equipment
Demolition	Tractors/loader/backhoe
	Rubber tired dozer
	Concrete/industrial saws
Site Preparation	Grader

Phase	Equipment
	Tractor/loader/backhoe
Grading	Grader
	Rubber tired dozer
	Tractor/loader/backhoe
Building Construction	Crane
	Forklift
	Air compressor
	Tractor/loader/backhoe
Paving	Cement and mortar mixers
	Pavers
	Rollers
	Tractors/loader/backhoe

2.4.3 Demolition

The existing Fire Station 22 would not be demolished as a part of the project. The proposed Fire Station 22 site would require removal of the surface pavement and utility poles to facilitate construction of the new station. The utility poles would be removed by PG&E. Demolition would generate approximately 100 cubic yards of debris.

2.4.4 Excavation and Building Construction

Project construction would require excavation to a depth of approximately 3 feet below ground surface. Fire Station 22 would require approximately 1,800 cubic yards of soil excavation and approximately 1,800 cubic yards of soil off haul.[1]

The new fire station foundation would require installation of drilled displacement piles, to a depth of approximately 60 to 76 feet. A summary of soil excavation/disturbance is shown in Table 2.4-2.

[1] To provide a conservative analysis, this document assumes 1,800 cubic yards of soil off-haul

Table 2.4-2 Soil Excavation and Disturbance

Project component	Soil excavation/disturbance
Fire station	7,700 square feet of disturbance, 856 cubic yards of excavation, 0 cubic yards of fill
Parking lot	7,670 square feet of disturbance, 852 cubic yards of excavation, 0 cubic yards of fill
Generator pad	300 square feet of disturbance, 33 cubic yards of excavation, 0 cubic yards of fill
Fuel Tank pad	100 square feet of disturbance, 11 cubic yards of excavation, 0 cubic yards of fill

2.4.5 Construction Staging and Traffic

Construction vehicle parking and equipment staging would occur on the project site, and no off-site vehicle parking and equipment staging would occur. Fire station-specific construction traffic information is provided below.

Construction-related traffic, including worker, vendor, and haul trips, would occur during the approximately 18-month construction period. Construction is anticipated to require 10 truck trips per day and 30 vehicle trips per day on average.

2.4.6 Construction Waste, Electricity, and Water Use

Electricity for fire station project construction would be provided by PG&E. Water would be used for dust control, soil compaction, drinking water, and concrete curing.

Any hazardous demolition waste would be hauled to a Class I landfill that is authorized to accept hazardous waste. Excess soil materials and any re-useable elements would be recycled. All other solid waste would be conveyed to a Class III landfill. The nearest landfills to the fire station are the Hayward Transfer Station and the Vasco Road Sanitary Landfill.

2.5 Project Operations

Existing fire station operation and maintenance would be transferred to the new fire station, including the apparatus bays, offices, sleeping rooms and lockers, workshops, training rooms, and fleet vehicles.

The fire station would be staffed with three employees; the three existing employees would move to the new fire station on its completion. Approximately five vehicles would be parked in the two apparatus bays.

3 Environmental Checklist

3.1 Approach to Environmental Analysis

This Initial Study/Mitigated Negative Declaration (IS/MND) environmental checklist includes an evaluation of impacts based on the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations Title 14, division 6, chapter 3) Appendix G Environmental Checklist. This IS/MND includes descriptions of the environmental setting to provide context to understand project impacts (or the absence of impacts). An evaluation of potential impacts and mitigation measures to reduce potentially significant impacts is presented in the analysis.

This IS checklist evaluates the potential environmental impacts of each of the three fire station projects. The level of significance for each resource topic is determined by considering the predicted magnitude of the impact for each of the three projects. Four levels of impact significance are evaluated in this IS checklist:

> **No Impact.** The project would not have the impact described. The project may have a beneficial effect, but there is no potential for the project to create or add increment to the impact described.
>
> **Less-than-Significant Impact.** The project would have the impact described, but the impact would not be significant. Mitigation is not required although the project applicant may choose to modify the project to avoid the impacts.
>
> **Less-than-Significant with Mitigation.** The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.
>
> **Significant and Unavoidable Impact.** The project would have the impact described, and the impact could be significant. The impact cannot be reduced to a less-than-significant level by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question on the checklist was answered by first evaluating the projects as proposed—that is, without considering the effect of any added mitigation measures. The checklist includes a discussion of the impacts and mitigation measures that have been identified to reduce impacts for the project.

Alameda County Fire Department (ACFD) has agreed to accept all mitigation measures listed in this checklist as conditions of approval of each of the projects, and to obtain all necessary permits.

3.2 Environmental Analysis

3.2.1 Aesthetics

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
1. AESTHETICS. Except as provided in Public Resources Code section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Environmental Setting

Scenic Vistas and Scenic Resources

Due to the topography of Alameda County, properties in the eastern hillside areas have scenic views of both the City of San Francisco and San Francisco Bay. San Lorenzo is characterized by commercial, residential, and industrial development with little undeveloped open space. The proposed fire station is located in a developed, urbanized area, and no scenic overlooks or scenic vistas are located within the vicinity of the proposed fire station. Views of East Bay Regional Park District land including Chabot Park and Cull Canyon to the north and east can be considered scenic vistas.

Visual Character

The visual character of the area surrounding the project site includes residences to the west, residences and a public storage building to the north, and vacant lots and a parking lot to the south. The project site is bounded by Hesperian Boulevard to the east. Additional commercial properties are located to the east of the project site across Hesperian Boulevard.

Scenic Highways

California Department of Transportation (Caltrans) State Scenic Highways within Alameda County include Interstate 580 (I-580), State Route 13 (SR 13), I-680, SR 84, and SR 24 (Caltrans, n.d.). Within the vicinity of San Lorenzo, I-580 is considered an "eligible" scenic highway and designated as a scenic route in the 1966 Scenic Route Element of the Alameda County General Plan (Alameda County 1966). The 1966 Scenic Route Element also identified I-880 (i.e., Nimitz Freeway) as an existing scenic route.

Impact Analysis

A and B) Would the Project have a substantial adverse effect on a scenic vista? Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The proposed project site is located in a developed area of and San Lorenzo. No scenic vistas are located in proximity to the project site. Fire Station 22 is located in a densely developed area with flat topography, and views of eastern hillside areas, including Chabot Park and Cull Canyon, would not be available. However, views of Chabot Park, Cull Canyon, and other hillside areas would not be visible due to intervening terrain and structures. The new fire station would not be visible or perceptible from any scenic vista, including the eastern hillside areas in the County that have views of the City and the San Francisco Bay. No impact would occur.

The nearest State scenic highways to Fire Station 22 is I-580. The proposed fire station would not be visible from I-580 due to the distance between the project site and the highways and intervening structures, which blocks views of the project site. Because the proposed project would not be visible from any scenic highway or eligible scenic highway, no impact on scenic resources within a scenic highway would occur.

C) Would the Project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

As Fire Station 22 is located in an urbanized area, the proposed project would result in a significant impact if development would conflict with applicable zoning and other regulations governing scenic quality. The project site is within the San Lorenzo Village Center Specific Plan Area and zoned SLZSP-C1 Retail Business District by Alameda County (Alameda County Planning Department 2004). Community facilities are conditional uses of the SLZSP-C1 Retail Business District. Therefore, the proposed project would be consistent with the San Lorenzo Village Center Specific Plan zoning regulations. Because the proposed project would comply with zoning and other regulations governing scenic quality in an urbanized area, the impact would be considered less than significant.

D) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site is within a dense, urban environment with substantial nighttime lighting. Primary sources of light on and adjacent the project site include lighting from existing

commercial and residential properties and streetlights on Paseo Grande. The proposed fire station would have lighting mounted on the building exterior, footpath lighting, and ground-mounted lighting around the flagpole. These light sources would not have a significant impact on nighttime light because all lighting would be shielded and directional and would conform with the Alameda County Dark Skies Ordinance, which aims to minimize artificial outdoor light and prevent excessive light and glare on private properties and public roadways (Alameda County, n.d.-c). The impact from lighting would be less than significant.

Fire station windows would reflect sunlight but would not create substantial glare that would be noticeable off site. The glare from windows would be similar to glare generated from other adjacent buildings and would not be substantial. The impact from glare would be less than significant.

3.2.2 Agriculture and Forestry

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
2. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis

- **A) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**
- **B) Would the Project Conflict with existing zoning for agricultural use, or a Williamson Act contract?**
- **C) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**
- **D) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?**
- **E) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

The proposed Fire Station 22 site is located in an urbanized area that does not contain any state-designated farmland or forestry resources on or near the project site. The site is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Fire Station 22 site is designated as Urban and Built-Up Land, which is not an agricultural designation (California Department of Conservation 2018), and no forest land occurs within the site. Therefore, no impact on agriculture or forestry resources would occur.

3.2.3 Air Quality

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) 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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Environmental Setting

Air Basin

Alameda County is within the San Francisco Bay Area Air Basin (SFBAAB). The Bay Area Air Quality Management District (BAAQMD) is responsible for air quality management and regulates activities that may affect air quality within the SFBAAB. The San Francisco Bay Area (Bay Area) has a Mediterranean climate characterized by wet winters and dry summers. During the summer, a high-pressure cell centered over the northeastern Pacific Ocean results in stable meteorological conditions and a steady northwesterly wind flow that generally prevents storms from affecting the California coast. During the winter, the Pacific high-pressure cell weakens, resulting in increased precipitation and the occurrence of storms. The highest air pollutant concentrations in the Bay Area generally occur during inversions, when a surface layer of cooler air becomes trapped beneath a layer of warmer air.

Federal and State Regulations

The U.S. Environmental Protection Agency (EPA) is responsible for setting National Ambient Air Quality Standards (NAAQS) under the Clean Air Act (CAA). National primary standards "provide public health protection, including protecting the health of 'sensitive' populations such as asthmatics, children, and the elderly." National secondary standards "provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings" (EPA 2024). A State Implementation Plan (SIP) must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas using a combination of performance standards and market-based programs. If a state fails to enforce its SIP, or if the EPA determines that a SIP is

inadequate, the EPA is required to prepare and enforce a federal implementation plan to promulgate comprehensive control measures for a given SIP.

The California Air Resources Board (CARB) is the State agency responsible for regulating mobile-source (vehicle) emissions and overseeing the activities of local air pollution control districts. CARB has established California Ambient Air Quality Standards (CAAQS) for all federally regulated pollutants as well as four additional pollutants: sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. CAAQS generally are more stringent than NAAQS. In accordance with the federal CAA and California Clean Air Act (CCAA), areas in California are classified as attainment, maintenance (i.e., former nonattainment), nonattainment, or unclassified for NAAQS and CAAQS for each criteria air pollutant. To assess the attainment status for the SFBAAB, the BAAQMD collects ambient air quality data from over 30 monitoring sites within the air basin. Based on current monitoring data, the SFBAAB is designated as a nonattainment area for ozone, PM_{10} (CAAQS only) and $PM_{2.5}$ and is designated an attainment or unclassified area for all other pollutants (see Table 3.2-1).

Table 3.2-1 Air Quality Standards and Attainment Status

Pollutant	Averaging time	CAAQS concentration	CAAQS attainment status	NAAQS concentration	NAAQS attainment status
Ozone	8 hours	0.070 ppm	N	0.070 ppm	N (marginal)
	1 hour	0.09 ppm	N	Revoked in 2005	—
Carbon monoxide	8 hours	9.0 ppm	A	9 ppm	A
	1 hour	20 ppm	A	35 ppm	A
Nitrogen dioxide	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	—	0.053 ppm	A
Sulfur dioxide	24 hours	0.04 ppm	A	0.14 ppm	A
	1 hour	0.25 ppm	A	0.075 ppm	A
	Annual	—	—	0.030 ppm	A
Coarse particulate matter (PM_{10})	Annual	20 µg/m^3	N	—	—
	24 hours	50 µg/m^3	N	150 µg/m^3	U
Fine particulate matter ($PM_{2.5}$)	Annual	12 µg/m^3	N	12 µg/m^3	U/A
	24 hours	—	—	35 µg/m^3	N (moderate)
Lead	30 days	1.5 µg/m^3	A	—	—
	Calendar quarter	—	—	1.5 µg/m^3	A
	Rolling 3 months	—	—	0.15 µg/m^3	A

Pollutant	Averaging time	CAAQS concentration	CAAQS attainment status	NAAQS concentration	NAAQS attainment status

Notes: CAAQS = California Ambient Air Quality Standards; NAAQS National Ambient Air Quality Standards; A = Attainment; N = Nonattainment; U = Unclassified; "---" = not applicable; ppm = parts per million; µg/m3 = micrograms per cubic meter; PST = Pacific Standard Time.

Source: (BAAQMD 2017a)

Regional Regulations

The BAAQMD's 2017 Clean Air Plan (CAP) is the applicable air quality plan for projects located in the SFBAAB (BAAQMD 2017b). Consistency with the 2017 CAP may be determined by evaluating whether the project supports the primary goals, including applicable control measures contained within the 2017 CAP, and would not conflict with or obstruct implementation of any 2017 CAP control measures.

The primary goals of the 2017 CAP are the attainment of ambient air quality standards and reduction of population exposure to air pollutants for the protection of public health in the Bay Area.

The BAAQMD adopts rules and regulations that apply for development projects. Specific rules applicable to project construction and operation include, but are not limited to, the following rules (BAAQMD n.d.):

- Regulation 2, Rule 2, New Source Review: This rule applies to new or modified sources and contains requirements for *best available control technology* (BACT) and emission offsets. Rule 2 implements federal New Source Review and Prevention of Significant Deterioration requirements.
- Regulation 2, Rule 5 (New Source Review of TACs): This regulation outlines guidance for evaluating *toxic air contaminant* (TAC) emissions and their potential health risks. The Project Risk Requirement (2-5-302.1) states that the Air Pollution Control Officer shall deny an Authority to Construct or Permit to Operate for any new or modified source of TACs if the project cancer risk exceeds 10.0 in one million.
- Regulation 7, Odorous Substances: Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds.
- Regulation 9, Rule 8 (Stationary Internal-Combustion Engines): This regulation limits emissions of NO_x and CO from stationary internal-combustion engines of more than 50 horsepower.

BAAQMD CEQA Significance Thresholds

The BAAQMD has adopted air quality significance thresholds for reactive organic compounds (ROC), oxides of nitrogen (NO_x), coarse particulate matter (PM_{10}), and fine particulate matter

($PM_{2.5}$) to determine whether air pollutant emissions generated by a project's construction and operation would be significant. These are listed below in Table 3.2-2.

Table 3.2-2 BAAQMD's Thresholds of Significance

Impact analysis	Pollutant	Thresholds of significance
Regional air quality (construction)	ROG	54 pounds/day (average daily emission)
	NO_x	54 pounds/day (average daily emission)
	Exhaust PM_{10}	82 pounds/day (average daily emission)
	Exhaust $PM_{2.5}$	54 pounds/day (average daily emission)
	Fugitive dust (PM_{10} and $PM_{2.5}$)	Best management practices (BMPs)
Regional air quality (operation)	ROG	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	NOx	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	Exhaust PM_{10}	82 pounds/day (average daily emission) 15 tons/year (maximum annual emission)
	Exhaust $PM_{2.5}$	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
Local community risks and hazards (operation and/or construction)	$PM_{2.5}$ (project)	0.3 µg/m^3 (annual average)
	TACs (project)	Cancer risk increase > 10 in one million
	Chronic hazard index > 1.0	0.8 µg/m^3 (annual average)
	$PM_{2.5}$ (cumulative)	Cancer risk > 100 in one million Chronic hazard index > 10.0

Note: µg/m^3 = micrograms per cubic meter

Source: (BAAQMD 2022)

The BAAQMD has also developed screening criteria for criteria air pollutant emissions. These screening criteria are not thresholds of significance in that they do not determine whether a project's impacts to air quality would be significant. Rather, they provide lead agencies with a conservative metric to evaluate whether a proposed project could result in potentially significant criteria air pollutant impacts. If screening criteria for criteria air pollutant emissions are met by a proposed project, then the lead agency does not need to perform a more detailed assessment of the project's criteria air pollutant emissions, such as dispersion modeling.

According to the BAAQMD *2022 CEQA Guidelines* (BAAQMD 2022), if all of the following screening criteria are met, construction of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

1. The project size is at or below the applicable screening level size of 452,000 square feet for commercial and industrial land uses.
2. All best management practices are included in the project design and implemented during construction.
3. Construction-related activities would not overlap with operational activities.
4. Construction-related activities would not include:
    a. Demolition;
    b. Simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously);
    c. Extensive site preparation (e.g., grading, cut and fill, or earth movement);
    d. Extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity); or
    e. Stationary sources (e.g., backup generators) subject to Air District rules and regulations.

If all of the following screening criteria are met, operation of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

1. The project size is at or below the applicable most conservative operational screening level size of 89,000 square feet for commercial and industrial land uses.
2. Operational activities would not include stationary engines (e.g., backup generators) and industrial sources subject to Air District rules and regulations.
3. Operational activities would not overlap with construction-related activities.

The BAAQMD's local threshold of significance for local carbon monoxide concentrations is equivalent to the 1- and 8-hour CAAQS of 20.0 and 9.0 parts per million (ppm), respectively, because these represent levels that are protective of public health. The BAAQMD has developed conservative screening criteria that can be used to determine if a project would generate traffic congestion at intersections that could potentially cause or contribute to local carbon monoxide levels above the CAAQS. According to the BAAQMD, a project would result in a less-than-significant impact related to localized CO concentrations if all of the following screening criteria are met:

- The project is consistent with an applicable Congestion Management Program (CMP) established by the County Congestion Management Agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Sensitive Receptors

Sensitive receptors refers to land uses that include, but are not limited to, hospitals, schools, daycare facilities, elderly housing, convalescent facilities, and residences, which are particularly vulnerable to health impacts from emissions of air pollutants. The sensitive receptors in proximity to Fire Station 22 include residences approximately 25 feet to the north of the fire station, the Franskin Daycare center approximately 750 feet to the southeast, and the Marseille Delgado Crayolas Daycare approximately 920 feet to the northwest of the project site.

Impact Analysis

A) Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

The control measures from the 2017 CAP, which aim to reduce emissions of air pollution and GHGs from stationary, area, and mobile sources, are organized into nine categories: stationary sources, transportation, buildings, energy, agriculture, natural and working lands, waste, water, and "super-pollutant" GHGs (e.g., methane, black carbon, fluorinated gases). The proposed project would be consistent with applicable control measures from the 2017 CAP. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

Table 3.2-3 Project Consistency with BAAQMD's 2017 CAP

Control measures	Project consistency
Stationary source	The stationary source measures, which are designed to reduce emissions from stationary sources, are incorporated into rules adopted by the BAAQMD and then enforced by the BAAQMD's Permit and Inspection programs. Operation of an emergency backup generator at Fire Station 22, along with an aboveground fuel tank, would be subject to the BAAQMD's permitting requirements for stationary sources. Therefore, the proposed projects would be **consistent** with the stationary source control measures of the 2017 CAP.
Transportation	The transportation control measures are designed to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing vehicle emissions. The proposed project would not change the number of employees, the service area or the number vehicle trips generated relative to existing conditions. Therefore, the projects would be **consistent** with the transportation control measures in the 2017 CAP.
Energy	The energy control measures are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area as well as decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures primarily apply to electrical utility providers, the energy control measures of the 2017 CAP are **not applicable** to the proposed projects.

Control measures	Project consistency
Buildings	The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters but has limited authority to regulate buildings themselves. Therefore, the building control measures focus on working with local governments that have authority over local building codes to facilitate adoption of best practices and policies to control GHG emissions. The proposed project would comply with the current Title 24 Building Energy Efficiency Standards, which include performance standards for energy-efficient appliances and heating and cooling systems. Therefore, the proposed project would be **consistent** with the buildings control measures of the 2017 CAP.
Agriculture	Agriculture control measures are designed to primarily reduce emissions of methane. Since the proposed project does not include any agricultural activities, the agriculture control measures of the 2017 CAP are **not applicable** to the proposed project.
Natural and working lands	The control measures for the natural and working lands sector focus on increasing carbon sequestration on rangelands and wetland as well as encouraging local governments to adopt ordinances that promote urban tree plantings. Since the proposed project does not include the disturbance of any rangelands or wetlands, the natural and working lands control measures of the 2017 CAP are **not applicable** to the proposed project.
Waste management	The waste management measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The proposed project would comply with local requirements for waste management (e.g., recycling). Therefore, the proposed projects would be **consistent** with the waste management control measures of the 2017 CAP.
Water	The water control measures to reduce emissions from the water sector would reduce emissions of criteria air pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Since these measures primarily apply to publicly owned treatment works (sewage treatment plant that is owned, and usually operated, by a government agency), the water control measures of the 2017 CAP are **not applicable** to the proposed project.
Super-pollutant GHGs	The super-pollutant GHG control measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual developments, the super-pollutant GHG control measures of the 2017 CAP are **not applicable** to the proposed projects.

Source: (Baseline Environmental Consulting 2024)

B) Would the proposed 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?

Construction

Construction of the proposed project would last 18 months and would generate criteria air pollutant emissions that could potentially impact regional air quality. Soil disturbance and

demolition activities during construction would generate fugitive dust emissions of PM_{10} and $PM_{2.5}$ emissions that could adversely affect regional air quality. Additionally, construction activities such as demolition, site preparation, grading, building construction, and paving could generate ROG, NOx, PM_{10}, and $PM_{2.5}$ in the form of exhaust from off-road construction equipment and on-road vehicles related to worker vehicles, vendor trucks, and haul trucks. Emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ during project construction were estimated using the most recent version of the California Emissions Estimator Model (CalEEMod) version 2022.1 input parameters, including land use type, construction phase, material movement, and demolition activities.

Project construction would last approximately 18 months. To analyze daily emission rates, the total emissions estimated during the construction were averaged over the total working days (390 days) and compared to BAAQMD's thresholds of significance. As shown in Table 3.2-4, the project's estimated emissions for ROG, NO_x and exhaust PM_{10} and $PM_{2.5}$ would fall below the BAAQMD thresholds of significance

Table 3.2-4 Criteria Pollutant Emissions during Construction (Pounds per Day)

Emissions Scenario	ROG	NOx	PM_{10}	$PM_{2.5}$
Construction Emissions	1.0	5.8	0.2	0.2
Thresholds of Significance	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: (Baseline Environmental Consulting 2025a)

The BAAQMD does not set a quantitative threshold of significance for fugitive dust PM_{10} and $PM_{2.5}$ emissions; however, the BAAQMD considers implementation of the following best management practices to control dust during construction sufficient to reduce potential impacts to a less-than-significant level. Because the proposed project does not include the use of these measures, the impact from fugitive dust is potentially significant. Mitigation Measure AQ-1 requires implementation of BAAQMD BMPs for fugitive dust control. With implementation of Mitigation Measure AQ-1, the impact from fugitive dust would be less than significant.

Operation

Project operation would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG, NO_x, and exhaust PM_{10} and $PM_{2.5}$ from mobile sources, energy use, area sources (e.g., consumer products, architectural coatings, landscape equipment), and stationary sources (i.e., generator). The proposed project would replace the existing 25-kilowatt generator with a new 100-kilowatt emergency diesel generator. Criteria air pollutant emissions during project operations were estimated using CalEEMod.

The estimated maximum annual emissions and average daily emissions during the operational phase of the proposed project are compared to the BAAQMD's thresholds of significance in Table 3.2-5 and Table 3.2-6**,** below**.** The estimated emissions for ROG, NOx, and exhaust PM_{10}

and $PM_{2.5}$ for project operation fall below the BAAQMD's thresholds of significance. Therefore, impacts would be less than significant.

Table 3.2-5 Estimated Maximum Annual Emissions (Tons)

Emissions scenario	ROG	NO_x	PM_{10}	$PM_{2.5}$
Area sources	0.04	<0.01	<0.01	<0.01
Energy use	<0.01	0.01	<0.01	<0.01
Generator	0.01	0.03	<0.01	<0.01
Total	0.05	0.04	<0.01	<0.01
BAAQMD CEQA thresholds of significance	10	10	15	10
Threshold exceedance?	**No**	**No**	**No**	**No**

(Baseline Environmental Consulting 2025a)

Table 3.2-6 Estimated Average Daily Emissions (Pounds)

Emissions scenario	ROG	NO_x	PM_{10}	$PM_{2.5}$
Area sources	0.22	<0.01	<0.01	<0.01
Energy use	<0.01	0.05	<0.01	<0.01
Generator	0.06	0.17	0.01	0.01
Total	0.28	0.22	0.01	0.01
BAAQMD CEQA Thresholds of Significance	54	54	82	54
Threshold exceedance?	**No**	**No**	**No**	**No**

(Baseline Environmental Consulting 2025a)

C) Would the proposed project expose sensitive receptors to substantial pollutant concentrations?

Construction

Diesel Particulate Matter Emissions

Project construction would generate *diesel particulate matter* (DPM) and $PM_{2.5}$ emissions from exhaust of off-road diesel construction equipment and fugitive $PM_{2.5}$ emissions from construction activities. The nearest sensitive receptors are residences to the northwest (as close as 30 feet) and to the west (as close as 55 feet) of the project site. The predominant wind pattern in the area blows towards the southeast, away from the sensitive receptors.

A more conservative analysis of construction health risks was performed for the ACFD Fire Station 25 Replacement Project (Baseline Environmental Consulting 2024), with sensitive receptors located 50 feet downwind of the predominant wind direction. The analysis found that the estimated excess cancer risk and chronic hazard index for DPM and annual average $PM_{2.5}$

concentration from construction emissions for these sensitive receptors fall below the BAAQMD's thresholds of significance. Moreover, the same study found that sensitive receptors located away from the predominant wind direction, but as close as 15 feet to Fire Station 25, were found to have less excess cancer risk and chronic hazard index for DPM and annual average $PM_{2.5}$ concentration than the sensitive receptors located in the predominant downwind direction. The nearest sensitive receptors to the proposed project site are located farther away from those indicated in the previous study and are similarly away from the predominant wind pattern. Therefore, the proposed project would not expose sensitive receptors to substantial pollutant concentrations during project construction, and the impact would be less than significant.

Operation

Local Carbon Monoxide Concentrations

The proposed project would transfer operations from the existing fire station to the new fire station. The new fire station would be staffed with the same number of employees as the existing fire station and would comply with the BAAQMD's screening criteria for local CO concentrations because the proposed project would not result in a substantial net increase in vehicle trips relative to existing conditions as the new fire station would be 300 feet from the existing fire station that it would replace and the new fire station would affect the same intersections. Traffic generated from the proposed project would not result in double the amount of traffic on nearby roadways and, therefore, the proposed project would not result in a net increase in the potential exposure of existing sensitive receptors to carbon monoxide concentrations from project-generated traffic, and the impact would be less than significant.

Toxic Air Contaminant Emissions

Project operations would be transferred from the existing fire station to the adjacent proposed fire station site and would not generate a net increase in DPM and $PM_{2.5}$ from emergency vehicles and on-road vehicle tire wear, brake wear, and resuspension of entrained roadway dust.

The proposed project would replace the existing 75-kilowatt emergency diesel generator with a 200-kilowatt emergency diesel generator. The operation of this diesel generator would be limited and reserved only for emergency situations and testing and maintenance. Therefore, this replacement is not expected to result in a substantial net increase in TAC emissions. Furthermore, operation of stationary sources is subject to BAAQMD permitting requirements under Regulation 2, Rule 5 to minimize the potential exposure of nearby sensitive receptors to TACs. Therefore, the proposed project would not result in a substantial net increase in the potential exposure of existing sensitive receptors to TAC concentrations from operation of stationary sources on the project site, and the impact would be less than significant.

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

The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the

receptors. Although offensive odors do not cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and the possibility of citizens submitting complaints to local governments and regulatory agencies. The BAAQMD has developed a list of recommended odor screening distances for specific odor-generating facilities (BAAQMD 2022), such as wastewater treatment facilities, sanitary landfills, composting facilities, petroleum refineries, chemical manufacturing plants, and food processing facilities. The proposed project does not consist of odor-generating land uses and would not introduce a new substantial source of odors. No impact from odors would occur.

Mitigation Measures

Mitigation Measure AQ-1: Fugitive Dust Control
The contractor shall implement the following fugitive dust control measures during construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations.

3.2.4 Biological Resources

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
4. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

The Fire Station 22 project site is developed and does not contain native vegetation communities or suitable habitat for special status plants or wildlife. The project site each contains two trees.

Impact Analysis

A) Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The project site is developed and does not contain suitable habitat for special status plants or wildlife. Therefore, no impact on special status plants or wildlife would occur.

Nesting birds are protected under the Migratory Bird Treaty Act and sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Construction of the proposed project would not require the removal of any existing trees. Construction activities would comply with the Migratory Bird Treaty Act and associated regulations and would not remove trees where nests are found. While the project site is developed, the trees on site could provide nesting habitat for protected bird species adapted to urban environments. Equipment use and earth-disturbing activities could result in nest destruction or mortality of young during the nesting season when an active nest is present. Use of heavy equipment could cause nest abandonment if construction occurs near an active nest during the nesting season. Loss of an active nest, whether directly through vegetation removal or indirectly because of adjacent noise and activity, would be a significant impact. Mitigation Measure BIO-1 would require nesting bird surveys for construction activities that occur during the nesting season (February 15 through August 31). Impacts to nesting birds and special-status species would be less than significant with implementation of Mitigation Measure BIO-1.

B) Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

The project site is located on developed land, surrounded by urban development, and the site does not contain riparian habitat or other sensitive natural communities. The proposed projects would not impact riparian habitat or sensitive natural communities.

C) Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No wetlands are present at Fire Station 22 project site. No impacts on wetlands would occur.

D) Would the proposed project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Fire Station 22 project site is developed sites in urban areas that do not contain established native resident or migratory wildlife corridors, native wildlife nursery sites, or aquatic habitat. No impacts related to the movement of any native resident or migratory fish or wildlife species would occur as a result of the Fire Station 22 proposed project.

E) Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Alameda County Tree Ordinance protects all trees located within the County right-of-way. Tree permits are not required for the removal of trees on private property in Alameda County. The proposed project would remove two trees. None of the trees that would be removed during construction meet the criteria to be protected under the City's tree ordinance. Therefore, the proposed project would not conflict with any policies or ordinances protecting biological resources. No impact would occur.

F) Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There are no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan applicable to the projects or project sites. No impact would occur.

Mitigation Measures

Mitigation Measure BIO-1: Nesting Bird Surveys

A pre-construction survey shall be performed at Fire Station 22 prior to construction. The following measures shall be implemented:

- If use of heavy equipment, grading, demolition, construction, and/or tree removal are scheduled to occur during the nonbreeding season (September 1 through February 15), no measures are required.
- If construction activities occur during the nesting season, a pre-construction survey for active bird nests in the project site shall be conducted on the project site and within 500 feet of the project site by a qualified biologist
  - If no nesting or breeding behavior is observed, construction may proceed.
  - If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work could affect the active nest. If it is determined that construction would not affect an active nest, work may proceed. If it is determined that construction activities are likely to impair the successful rearing of the young, a "no-disturbance buffer" in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior. The extent of the "no-disturbance buffer" shall be no less than 300 feet (500 feet for raptors), a smaller buffer may be determined by a qualified biologist in consultation with CDFW. "No-disturbance buffers" shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged. A qualified wildlife biologist shall inspect the active nest to determine whether construction activities are disturbing to the nesting birds or nestlings. If the qualified wildlife biologist determines that construction activities pose a disturbance to nesting, construction work shall be stopped in the area of the nest and the "no-disturbance buffer" expanded.

3.2.5 Cultural Resources

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

A cultural resources investigation was conducted to identify any historic or pre-historic cultural resources within the project areas (AHC 2024). The study included a records search for Fire Station 22 at the Northwest Information Center on December 11, 2023 (NWIC 23-0699). The records search was completed for 0.25 mile around the property.

Pre-Contact Resources

There are no previously recorded archaeological resources within the proposed Fire Station 22 project site. The record search identified an archaeological site directly north of Fire Station 22 at the Public Storage facility at 15951 Hesperian Boulevard (AHC 2024). The archaeological site consists of midden soil under Paseo Largavista and a Native American burial on the Public Storage facility parcel. The exact boundaries of the archaeological site are not known and the site may extend into the Fire Station 22 site. Due to prior records of pre-contact resources in proximity to the project site, the project site is highly sensitive for archaeological resources.

As described in Section 3.2.18, Tribal Cultural Resources, the Lisjan Nation requested consultation under AB 52 for the project. As a part of the consultation, the Lisjan Nation requested that archaeological testing occur prior to the start of project construction to assess the presence or absence of archaeological resources on the Fire Station 22 site. On December 2 through 4, 2025, Archaeological/Historical Consultants (A/HC) completed hand auger tests to a depth of 5.5 feet. A/HC also monitoring geotechnical borings that were completed at the project site during this time. No cultural soils or archaeological resources were observed during the geotechnical work or hand auger testing (AHC 2024).

Historic Resources

The Fire Station 22 project site is within the San Lorenzo Village Historic District, which is located in an unincorporated area between the cities of Hayward and San Leandro in Alameda County (AHC 2024). The San Lorenzo Village Historic District encompasses 2.1 square miles and consists of post-World War II single-family residences, eight churches, eight public school

building, sixty commercial buildings, a movie theater, community center, library, post office, and fire station (AHC 2024). The project site is vacant and does not contain any contributing elements to the district.

Impact Analysis

A) Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

The proposed project would be located within the San Lorenzo Village Historic District. Historic resources in association with the San Lorenzo Village Historic District are known to occur within 0.25 mile of the project site. The existing site is vacant and does not contain any contributing elements to the historic district (AHC 2024). The proposed project would therefore not affect the significance of a historic resource and there would be no impact.

B) Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

As discussed above, the cultural records search conducted for the project identified one archaeological site just north of the project site, at the Public Storage facility parcel (AHC 2024). While the archaeological site is not located on the project site, the boundaries of the archaeological site are not exact and may extend into the project site. Although the archaeological testing found no archaeological resources, resources could still be present due to the proximity of the known archaeological site to the north of the project site. Construction of the proposed project would include excavation and grading that could disturb the existing archaeological site if the site extended into the project site, which would result in a significant impact to archaeological resources. Additionally, project ground disturbing activities could disturb previously unknown archaeological resources, which would be a significant impact. Implementation of Mitigation Measure CUL-1 requires cultural sensitivity and archaeological awareness training to all work crews prior to ground-disturbing activities. Mitigation Measure CUL-2 requires that any ground disturbing activities are monitored by a qualified archaeologist and requires work to halt within 50 feet of an unanticipated archaeological discovery until the resource is examined by a qualified archaeologist and the consulting Native American representative. Additionally, Mitigation Measure CUL-2 requires a Native American monitor to be onsite during ground disturbing construction activities. With implementation of Mitigation Measure CUL-2, impacts to archaeological resources would be less than significant.

C) Would the proposed project disturb any human remains, including those interred outside of formal cemeteries?

As discussed above, a Native American burial site was identified on the parcel directly north of the proposed Fire Station 22 site. Construction of the proposed project may unearth human remains associated with the known burial near the project site.

In the event that human remains are unearthed during ground-disturbing activities, Mitigation Measure CUL-3 would be implemented. Mitigation Measure CUL-3 requires all work within 50 feet of the remains to halt and the County Coroner would be notified immediately. A qualified archaeologist would be contacted to assess the situation. In accordance with Mitigation Measure CUL-3, if the remains are determined to be of Native American descent, the Coroner would

have 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC would identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated funerary objects. With implementation of Mitigation Measure CUL-3, impacts to human remains as a result of the proposed project would be less than significant.

Mitigation Measures

Mitigation Measure CUL-1: Tribal Cultural Resources Sensitivity Training

ACFD shall retain the services of a Native American representative from a consulting tribe(s) traditionally and culturally affiliated with the project area and a qualified archaeologist to provide cultural sensitivity and archaeological awareness training to all work crews who will be involved in ground disturbing activities at the project site. The training shall inform all project contractors, subcontractors and work crew members to be on the alert for evidence of the presence of potential archaeological or tribal cultural resource(s), of how to identify the evidence of such a resource(s), and of stop work, resource protection, and notification requirements in the event of unanticipated discovery.

Mitigation Measure CUL-2: Cultural Resource Monitoring

Archaeological Monitoring Plan: A qualified archeologist and a Native American representative from a consulting tribe(s) traditionally and culturally affiliated with the project area shall be on site to monitor all ground disturbing construction activities. Before beginning construction, the archeologist shall prepare an archaeological monitoring plan, in consultation with the Native American monitor, for approval by the County. If evidence of any subsurface archaeological features or deposits is discovered during construction-related earth-moving activities, all ground-disturbing activity in the area of the discovery shall be halted within 50 feet of the find, and the finds shall be protected until they are examined by a qualified archaeologist and Native American representative and evaluated for listing in the CRHR and NRHP. Monitoring may be reduced or halted at the discretion of the archaeologist and tribal monitor, in consultation with the lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 50 percent of the entire area of ground disturbance. If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities move to a new location within the project site and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock).

Discovery and Treatment. If archaeological deposits are found, the archaeologist shall assess the significance of the find and make recommendations for further evaluation and treatment as necessary. The Native American monitor shall also assess the find if the artifacts are of Native American origin ~~and determined to be more than an isolated find~~. The qualified archaeologist shall stake the area of discovery, placing stakes no more than 10 feet apart, forming a circle having a radius of no less than 50 feet from the point of

discovery. If, after evaluation, a resource is determined to be a historical resource or unique archaeological resource (as defined in PRC section 21083.2 and CEQA Guidelines section 15064.5) or a tribal cultural resource (as defined in PRC section 21074), all preservation options shall be considered as required by CEQA (see CEQA Guidelines section 15126.4 and PRC 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource, and a mitigation plan shall be prepared. The mitigation plan shall be implemented by ACFD in accordance with state guidelines and in consultation with the consulting Native American tribe(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is not feasible, the plan shall outline appropriate treatment of the resource in coordination with the consulting Native American tribe and, if applicable, a qualified archeologist. Examples of appropriate treatment for the resource may include, but are not limited to, protecting the cultural character and integrity of the resources, protecting traditional use of the resources, protecting the confidentiality of the resources, data recovery excavations, or development of an interpretive program. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, ~~culturally appropriate recovery of cultural objects,~~ and reburial of cultural objects or cultural soil where they will not be subject to future ground disturbance. Work in the area may resume upon completion of treatment. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public except for information deemed confidential and protected under state law.

Mitigation Measure CUL-3: Impact to Previously Undiscovered Human Remains

If human remains are encountered during construction and ground disturbing activities, all work within 50 feet of the remains should be redirected and the County Coroner notified immediately. At the same time, a qualified archaeologist shall be contacted to complete an assessment of the find. If the human remains are of Native American origin, the Coroner must notify the NAHC within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated funerary objects. Once it is determined that the human remains are of Native American origin, no photographs shall be taken or testing done on Native American human remains, unless specifically requested by the MLD. The qualified archaeologist shall recover scientifically valuable information, as appropriate and in accordance with the agreement between the MLD and the ACFD. Upon completion of the archaeologist's assessment, a report should be prepared documenting methods and results of the assessment of human remains, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the County, ACFD, the NWIC and the MLD. Reburial of the Native

American human remains and associated funerary objects will be agreed upon between the MLD and ACFD. The discovery and reburial shall be kept confidential and secure to prevent any further disturbance.

3.2.6 Energy

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
6. ENERGY. Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis

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

Construction

Construction of the proposed project would consume energy via combustion of petroleum products, including gas, diesel, and motor oil. Energy in the form of electricity may also be consumed by some pieces of construction equipment. Electricity would be provided by PG&E.

During construction, the proposed project would use both direct and indirect sources of energy. Direct energy use would include the consumption of fuel (typically gasoline and diesel fuel) for operation of construction equipment and vehicles. Indirect energy use would be required to make the materials and components used in construction. Indirect energy use includes energy used for extraction of raw materials, manufacturing, and transportation associated with manufacturing. Construction activities would be temporary (18 months) and localized and would require limited amounts of energy. Therefore, energy use for construction would not be wasteful, inefficient, or unnecessary, and impacts from energy use during construction would be less than significant.

Operation

Operation and maintenance activities would be transferred from the existing Fire Station 22 to the newly constructed fire station. During project operations, energy would be used in the form of employee, visitor, and emergency response vehicle trips, electricity for lighting and heating, and energy for kitchen uses. Additionally, the emergency generator would utilize diesel.

The new fire station would be more energy efficient than the existing station as it would be constructed to the current, more stringent, energy conservation standards. The proposed project would comply with the California Building Standards Code, CALGreen, and policies such as policy P3 within the Greenhouse Gas Element of the Eden Area General Plan, that focuses on energy efficiency in new and remodeled buildings (Alameda County Community Development Agency 2010). Section 4.38.040 of the Alameda County Green Building Ordinance requires all county projects initiated on or after July 1, 2003 to meet a minimum LEED Silver rating (The

Board of Supervisors of the County of Alameda 2003). The proposed project would meet minimum LEED silver ratings during operation. The proposed project would not be considered to result in inefficient, wasteful, or unnecessary consumption of energy resources, and this impact would be less than significant.

B) Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Equipment and vehicles used for construction would comply with all federal and state efficiency standards. Project construction would be consistent with the California Green Building Standards Code, which promotes strategic planning and building standards that reduce consumption of fossil fuels, increase use of renewable resources, and enhance energy efficiency. The proposed project would follow policies outlined in the Alameda County Green Building Ordinance, which requires recycling of construction and demolition debris (Alameda County 2003).

ACFD has not adopted specific renewable energy or energy efficiency plans. The Alameda County Community Climate Action Plan (CCAP) addresses energy usage through a series of local programs and policy measures (Alameda County Sustainability, n.d.). The project would comply with the policies and provisions in the CCAP that address energy efficiency, which includes energy performance requirements for new construction-such as using building materials that contain recycled content.(Alameda County 2014). The proposed project, including each fire station, would comply with California Building Code (CBC) Title 24 energy efficiency standards, including electrical and lighting requirements.

Electrical power for each of the fire stations would be provided by PG&E from existing electrical lines. PG&E is required to meet requirements for compliance with California's Renewables Portfolio Standard (RPS) and the power for the fire stations would therefore meet the RPS goals.

Therefore, the proposed project would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency, the impact would be less than significant.

3.2.7 Geology and Soils

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
7. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist–Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and, potentially, result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Environmental Setting

The seismic, geologic, and soils information provided below, as well as in the impacts assessment, is based on site-specific geotechnical analyses for Fire Station 22, prepared by Ninyo & Moore (Ninyo & Moore 2024)

Seismicity

None of the proposed project sites are located within a mapped Earthquake Fault Zone, as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the project site. The Fire Station 22 site is located in an area subject to high seismic shaking hazards in the event of a major earthquake on any of the region's major faults. Major active faults in the region include the Hayward, Calaveras, and San Andreas faults. The nearest major fault to the project sites is the Hayward Fault, located approximately 1.5 miles to the northeast of the Fire Station 22 site (Ninyo & Moore 2024). Researchers estimated the probability of at least one Richter Magnitude 6.7 or greater earthquake occurring in the greater San Francisco Bay Area within the next 30 years is 72 percent (USGS, n.d.). The highest probabilities of a magnitude 6.7 or greater earthquake are assigned to sections of the Hayward (South), Calaveras (Central), and San Andreas (Santa Cruz Mountains) faults. The respective probabilities are approximately 25 percent, 21 percent, and 17 percent.

The seismicity of the project site is generally governed by the activity of the Hayward Fault although ground shaking from future earthquakes on the other regional faults would also be felt at the project site. The intensity of earthquake ground motion at the project site would depend upon the characteristics of the generating fault, distance to the earthquake epicenter, and magnitude and duration of the earthquake. Strong to very strong ground shaking could occur at the project site during a large earthquake on one of the nearby faults.

Liquefaction

When a saturated, cohesionless soil liquefies, it experiences a temporary loss of shear strength created by a transient rise in excess pore pressure generated by strong ground motion. Soil susceptible to liquefaction includes loose to medium dense sand and gravel, low-plasticity silt, and some low-plasticity clay deposits. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures, and sand boils are evidence of liquefaction.

The Fire Station 22 site is in a seismic hazard zone for liquefaction as mapped in Revised Official Map of Seismic Hazard Zones, San Leandro Quadrangle, prepared by the California Geological Survey (CGS), dated February 14, 2003 (Ninyo & Moore 2024). Regional studies of liquefaction susceptibility indicate that the site is in an area considered to have moderate susceptibility to liquefaction. Ninyo & Moore performed an analysis to evaluate the potential for liquefaction and cyclic ground softening (which can lead to ground settlement). The results of the analysis indicate that clayey soil between depths of approximately 12 and 50 feet is generally subject to cyclic softening and sandy soil between depths of 23 and 35 feet is generally subject to liquefaction.

Landslides

Landslides are a site-specific hazard, dependent on slope steepness and underlying soils and geology. The California Geological Survey, as part of the Seismic Hazards Mapping Act of 1990, has identified areas within California that are prone to earthquake-induced landslides during earthquake shaking. The Fire Station 22 site is not located within or adjacent to a CGS-mapped earthquake inducted landslide zone (Ninyo & Moore 2024). Further, no historic landslides were

identified within or adjacent to Fire Station 22. Therefore, the likelihood of a landslide impacting the Fire Station 22 site is considered to be low.

Soils

The Fire Station 22 site is underlain by Holocene-age alluvial fan (slope wash material) and fluvial (stream) deposits (Qhaf). The alluvial fan deposits are comprised of medium dense to dense, gravely sand or sandy gravel that generally grades upward to sandy or silty clay. The fluvial deposits are typically on the edges of the fans and generally consist of medium dense sand that fines upward to sandy or silty clay. Alluvium was encountered in site borings under the existing pavement at the site and generally consisted of very loose to very dense clayey sand, and soft to very stiff, lean to fat clay. Tests performed on the Fire Station 22 site found that the site soils have a very low expansion characteristic (Ninyo & Moore 2024).

Discussion

A) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist–Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

As described in the Environmental Setting above, the Fire Station 22 site is not subject to landslide or fault rupture hazards. Therefore, these hazards would pose a less-than-significant risk to the proposed project.

The Fire Station 22 site would be subject to strong seismic shaking in a major earthquake and could be subject to liquefaction. Fire Station 22 would need to obtain a building permit prior to construction. As part of the building permit process, the project design has been reviewed in the project geotechnical report and would be designed to meet current California Building Code (CBC) standards. The geotechnical report and CBC contain requirements for structural and geotechnical engineering and design to address earthquakes, liquefaction, and seismically induced ground settlement, including conformance to geotechnical foundation design. Because project design would meet current CBC standards, including design for seismic events, and would be designed and constructed as specified in the project geotechnical report, the impact from strong seismic ground shaking and seismic-related ground failure, including liquefaction, would be less than significant.

B) Would the Project result in substantial soil erosion or the loss of topsoil?

The Fire Station 22 site is developed. There is the potential for site development activities to cause soil erosion during grading and excavation. The Fire Station 22 project is less than 1 acre in size and would not need to obtain coverage under the State of California Construction Stormwater General Permit. Alameda County has adopted the Stormwater Management and Discharge Control Ordinance, as codified in Alameda County Code chapter 13.08. In addition,

the Alameda County Clean Water Program C.3 and C.6 permit defines additional requirements for stormwater management during construction and operation. Fire Station 22 development would comply with Alameda County C.3, C.6, and Stormwater Management and Discharge Control requirements, including implementation of erosion control BMPs. Alameda County would review the erosion control BMPs as part of the project's grading permit. Impacts would be less than significant.

C) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and, potentially, result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

As described in "Environmental Setting," above, the Fire Station 22 site is not subject to landslide hazards as the site is relatively flat and developed. The potential for ground subsidence and lateral spreading due to liquefaction is low; however, the project site could be subject to liquefaction (Ninyo & Moore 2024). Because project design would meet current CBC standards, including design for seismic events, and would be designed and constructed as specified in the project geotechnical report, the impact from these hazards would be **l**ess than significant. The proposed project does not involve groundwater extraction and would not cause or contribute to any conditions that would cause subsidence, and no impact from subsidence would occur.

D) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

As discussed in "Environmental Setting," above, the site soils have a very low expansion characteristic. Therefore, no impact from expansive soils would occur.

E) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project would not use septic tanks or alternative sewage systems. Fire Station 22 would connect to existing wastewater lines leading to existing wastewater treatment plants. Therefore, no impact from use of a septic tank or wastewater disposal system would occur.

F) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Fire Station 22 site is largely underlain by relatively young Quaternary-age alluvial soils, and there are no known significant paleontological resources in the project areas or unique geologic features on any of the project sites (Alameda County Community Development Agency 2007). In addition, the project site has been previously graded and/or filled. Construction activities would not be expected to result in the discovery of paleontological resources due to the low paleontological sensitivity in the project area and the prior disturbance of the project site. The potential impact of the project on paleontological resources would be **less than significant.**

3.2.8 Greenhouse Gas Emissions

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
8.. GREENHOUSE GAS EMISSIONS Would the project:				
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?	☐	☐	☒	☐

Environmental Setting

Climate change refers to changes in the Earth's climactic patterns due to an increase in heat-trapping GHGs in the atmosphere. According to the BAAQMD, some of the potential effects of increased GHG emissions and associated climate change may include loss of snowpack (affecting water supply), more frequent extreme weather events, more and larger fires, more drought years, and sea-level rise. In addition, climate change may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health (BAAQMD 2017b).

California's Climate Change Scoping Plan

In December 2008, the California Air Resources Board (CARB) adopted the Climate Change Scoping Plan to identify how the State can achieve its 2020 climate action goal under AB 32. In 2017, CARB updated the Scoping Plan to identify how the State can achieve its 2030 climate action goal under SB 32 and substantially advance toward its 2050 climate action goal under Executive Order S-3-05. The 2017 Scoping Plan includes the regulatory programs, such as the Advanced Clean Cars Program, Low-Carbon Fuel Standard, Renewable Portfolio Standard Program, and energy efficiency standards (CARB 2017).

In December 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, which outlines a roadmap to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045 (CARB 2022). Building on the 2017 Scoping Plan, the 2022 Scoping Plan evaluates the progress made toward meeting the 2030 GHG reduction target established in SB 32 and identifies a technologically feasible, cost-effective, and equity-focused path to achieve carbon neutrality by 2045. The 2022 Scoping Plan presents an approach for an aggressive reduction of fossil fuels and a rapid transition to renewable energy resources and zero-emission vehicles. The 2022 Scoping Plan identifies actions and outcomes such as rapidly moving to zero-emission transportation; electrifying cars, buses, trains, and trucks; phasing out the use of fossil gas used for heating homes and buildings; clamping down on chemicals and refrigerants; providing communities with sustainable options for walking, biking, and public transit; building out clean, renewable energy resources (such as solar arrays and wind turbine capacity) to displace fossil-fuel fired electrical generation; and

scaling up new options such as renewable hydrogen and biomethane. Appendix D of the 2022 Scoping Plan includes recommendations for local government to take actions that align with the state's climate goals, with a focus on local climate action plans and local authority over new residential and mixed-use development. Appendix D of the 2022 Scoping Plan recommends for local jurisdictions to focus on three priority areas when preparing a climate action plan: transportation electrification, vehicle miles travelled (VMT) reduction, and building decarbonization (CARB 2022).

BAAQMD CEQA Guidelines

The BAAQMD's CEQA Air Quality Guidelines include recommended thresholds of significance for GHG emissions from typical land use projects that are intended to assist public agencies in determining whether proposed projects would make a cumulatively considerable contribution to global climate change, as required by CEQA (BAAQMD 2022). The thresholds identify design elements that an individual project needs to incorporate to do its "fair share" in achieving the State's goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The GHG thresholds for typical land use projects include two options, as follows:

Option 1. Projects must include, at a minimum, the following project design elements:

- Buildings
  - The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
  - The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
- Transportation
  - Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.
  - 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 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    - Residential projects: 15 percent below the existing VMT per capita
    - Office projects: 15 percent below the existing VMT per employee
    - Retail projects: no net increase in existing VMT

Option 2. Be consistent with local GHG reduction strategy that meets the criteria under State CEQA Guidelines section 15183.5(b).

Alameda County Climate Action Plan

In May 2010, the Alameda County adopted the Alameda County Climate Action Plan for Government Services and Operations Through 2020 (CAP 2020), including 16 Commitments to Climate Project that aim to reduce GHG emissions associated with providing government services by 15 percent to 30 percent below 2003 levels by 2020 (Alameda County 2010). The CAP 2020 goal was met in 2019. The updated climate action plan, Alameda County Climate Action Plan for Government Services and Operations Through 2026 (CAP 2026), was adopted by Alameda County in May 2023. Aligning with the State's long-term climate action goals, CAP 2026 set a goal to achieve carbon neutrality by 2045 and contains six action areas including building environment, community resilience, green economy and prosperity, sustainable materials management, transportation, and climate leadership and governance. The CAP 2026 focuses on actions that need to be taken between 2023 to 2026.

Impact Analysis

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

The proposed project would generate temporary GHG emissions through construction activities, such as operation of on-site heavy construction equipment and off-site construction vehicle trips. The BAAQMD does not recommend a threshold of significance for GHG emissions during construction because there is not sufficient evidence to determine a level at which temporary construction emissions are significant (BAAQMD 2022).

Operation of the proposed project would generate GHG emissions from several sources, such as the buildings (i.e., area, energy, water, solid waste disposal), emergency diesel generators, and on-road vehicles. As the existing fire station operations and maintenance would be transferred to the proposed fire station, project operations are not expected to result in a substantial increase in GHG emissions. In addition, the proposed project's consistency with the BAAQMD's recommended design elements (Option 1 thresholds) is evaluated in Table 3.2-7. As presented Table 3.2-7, the project is designed to incorporate the applicable design elements. Therefore, the project would contribute its "fair share" to achieve the state's long-term climate goals and the impact would be less than significant.

Table 3.2-7 Proposed Project's Consistency with BAAQMD Design Elements for GHG Emissions

Design Element	Design Element	Project Consistency
Building	No Natural Gas	**Not Applicable**. The proposed project would include natural gas uses. The building decarbonization design element (no natural gas) does not apply to fire stations because it is not considered a typical residential or commercial land use.
Building	No Wasteful, Inefficient, or Unnecessary Energy Usage	**Consistent.** The project will be required to comply with state and locally mandated energy efficiency/conservation measures. Therefore, operation of the project would not result in inefficient, wasteful, or unnecessary energy usage.
Transportation	California Green Building Standards (CALGreen) Tier 2 EV Requirement	**Consistent.** In accordance with the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle Charging Stations at Alameda County Facilities, the project would include two parking spaces with level 2 EV charging stations. In accordance with CALGreen 2022 Section A5.106.5.3.2 Tier 2, 3 parking spaces out of the proposed 9 parking spaces would need to be EV capable spaces. No Electric Vehicle Supply Equipment (EVSE) required. The project does not meet the CALGreen Tier 2 EV capable requirement but would exceed the EVSE requirement. Therefore, the project would be generally consistent with CALGreen Tier 2 requirements.
Transportation	Project-generated VMT Reduction	**Not applicable**. As discussed above, project-generated VMT reduction targets included in this design element do not apply to fire stations. Therefore, this design element is not applicable to the proposed project. The new fire station would be staffed with the same number of employees as the existing fire station. Project-generated VMT would be the same as the existing condition.

Source: BAAQMD , 2023

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

2022 Scoping Plan Consistency

The proposed project includes the applicable BAAQMD-recommended design elements that an individual project needs to incorporate to do its "fair share" in achieving the State's goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The proposed project would be required to comply with state and locally mandated energy efficiency/conservation measures, ensuring building energy efficiency. In addition, the proposed project would construct EV charging infrastructure that meets the CALGreen and the Alameda County Guidelines for Future Electric Vehicle Charging Stations requirements, supporting the transition to zero-emission vehicles. Therefore, the proposed project would not conflict with the 2022 Scoping Plan. The impact would be less than significant.

Alameda County CAP 2026 Consistency

The proposed project would include EV charging infrastructure, which is consistent with the CAP 2026 Transportation Measure T6– Smart Parking Policies. The measure recommends

designation of an increasing amount of parking throughout the County for carpools, low-emission vehicles, or zero-emission vehicles only. The proposed project would not conflict with CAP 2026. The impact would be less than significant.

3.2.9 Hazards and Hazardous Materials

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Impact Analysis

As used in this section, the term *hazardous material* is defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if accidentally released. As used in this section, the term *hazardous waste* generally refers to a hazardous material that has been used for its intended purpose and is in need of disposal or recycling. In California, hazardous waste is defined as a waste, or combination of wastes, that, due to the quantity, concentration, or physical, chemical, or infectious characteristics, may either:

- Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or
- Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Federal and state regulations require adherence to specific guidelines regarding the use, transportation, disposal, and accidental release of hazardous materials. The EPA is responsible for administering the federal Toxic Substances Control Act and the Resource Conservation and Recovery Act (RCRA), which regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. Under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a federal database is maintained that records the known hazardous contaminated sites and facilitates remediation actions. The management of hazardous materials and waste within California is regulated under the jurisdiction of CalEPA, which coordinates the State's Unified Program for permitting, inspecting, and enforcing regulations related to hazardous materials.

A) Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Construction of the proposed project would involve the use of potentially hazardous materials, including gasoline, diesel fuel, hydraulic oils, equipment coolants, and any generated wastes that may include these materials. The routine transport of hazardous materials could pose a risk to human health and the environment if not managed responsibly. All hazardous materials would be transported, contained, stored, used, and disposed of in accordance with manufacturers' instructions and would be handled in compliance with all applicable standards and regulations. Handling of hazardous materials would need to be conducted in accordance with Code of Federal Regulations title 29 section 1910. Transportation of hazardous materials would need to comply with the RCRA and U.S. Department of Transportation (DOT) regulations. The RCRA also governs hazardous waste disposal, ensuring that only facilities permitted to accept a specific waste are used.

The proposed project would be required to prepare and implement a hazardous materials business plan (HMBP) in compliance with State of California requirements in CCR title 19 division 5 chapter 1, sections 5010.1 through 5040.2. The HMBPs would need to include the following for each site:

- An inventory of hazardous materials
- Emergency response plans and procedures in the event of a release or threatened release of a hazardous material
- Requirements to train employees in safety procedures in the event of a release or threatened release of hazardous material
- Site map including emergency response equipment

The Alameda County Department of Environmental Health (ACDEH) is responsible for the implementation, enforcement, and administration of the HMBP for facilities in Alameda County (Alameda County Department of Environmental Health, n.d.). Due to compliance with federal and state laws for management of hazardous waste, including preparation of an HMBP, the risk to the public and environment from transport and use of hazardous materials during construction would be less than significant.

Operation

Hazardous waste generated by operation of the proposed project may include gasoline, diesel fuel, and hydraulic oils. Project operations would be similar to operations at the existing fire station and would require hazardous waste transport associated with vehicle refueling and maintenance. The proposed project would also include an aboveground storage tank. The transport and storage of fuels would require preparation of an HMBP and a Spill Prevention Control and Countermeasures Plan (SPCC) in compliance with CFR title 40, part 112. The SPCC Plan would include discharge prevention measures and secondary containment to prevent discharge from the aboveground storage tanks. The proposed project would comply with all applicable local, state, and federal regulations related to the transport and handling of hazardous waste. Therefore, operation of the proposed project would not post substantial health or safety hazards resulting from routine use, transport, or disposal of hazardous materials. Impacts would be less than significant.

B) Would the proposed project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction

As discussed under Impact A, construction of the proposed project would involve the use of materials that are defined as hazardous, such as fuels, hydraulic fluids, and coolants for construction equipment. If not properly managed, hazardous materials have the potential to be released or spilled accidentally during maintenance, refueling, or servicing of equipment and vehicles. Improperly disposed of, spilled, or released hazardous materials could create a significant hazard to workers, the public, or the environment. Demolition of the existing Fire Station 22 building would not occur. Additionally, the proposed project must comply with federal, state, and local regulations regarding the handling, disposal, and transportation of hazardous materials, including the federal RCRA and DOT regulations. An HMBP would need to be prepared for the project and reviewed by Alameda County. Compliance with regulatory requirements would minimize potential impacts related to the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This being the case, the impact would be less than significant.

Operation

As stated under Impact A, project operations would include use and storage of oils, lubricants, paints, solvents, gasoline, and diesel consistent with the uses at the existing fire station. The project would include an aboveground storage tank for fuels. The proposed project would comply with local, state, and federal regulations regarding hazardous materials, including the RCRA, DOT, the DTSC, title 22 of the California Code of Regulations (CCR), and California

Health and Safety Code division 20, chapter 6.5 for the handling, transport, and disposal of hazardous materials. In accordance with California Health and Safety Code chapter 6.95, the project would prepare a HMBP and SPCC Plan that would ensure that hazardous materials are stored properly and that employees are trained adequately to handle hazardous materials. The Alameda County Department of Environmental Health (ACDEH) is responsible for the implementation, enforcement, and administration of the HMBP and SPCC Plans for facilities in Alameda County (Alameda County Department of Environmental Health, n.d.). Therefore, impacts related to hazardous building materials during project operations would not occur. Implementation of the hazardous materials plan would further minimize the potential for the release of hazardous materials into the environment. The impact would be less than significant.

C) Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are two daycare centers located within a quarter mile of the proposed project site. The Franklin Daycare Center is located approximately 750 feet to the southeast, and the Marseille Delgado Crayolas Daycare is located approximately 920 feet to the northwest of the proposed project site. The proposed project would require vehicle maintenance and refueling as well as use of hazardous materials. Workers handling hazardous materials are required to adhere to Occupational Safety and Health Administration (OSHA) and Cal/OSHA health and safety requirements. Hazardous materials are required to be transported to and from the Project site in accordance with RCRA and DOT regulations and disposed of in accordance with RCRA at a facility that is permitted to accept that waste. As described above, a HMBP and SPCC Plan would be prepared for the project which would ensure that hazardous materials are stored properly and that employees are trained adequately to handle hazardous materials. Therefore, the impact from hazardous wage within one-quarter mile of an existing or proposed school would be less than significant.

D) Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The following databases compiled pursuant to Government Code section 65962.5 were reviewed for known hazardous materials contaminations within 1,000 feet of the project site:

- California State Water Resources Control Board, GeoTracker search for LUST and other Cleanup Sites
- DTSC, EnviroStor: Cleanup Site and Hazardous Waste Facilities Database

There are three hazardous waste sites within 1,000 feet of the project site, including the closed leaking underground storage tank (LUST) located on the project site. A Phase I environmental site assessment (ESA) was conducted for the project site (ACC Environmental Consultants 2023). The assessment found evidence of a *recognized environmental condition* (REC) on the project site. The identification of the REC is based on a 2021 subsurface investigation on the western side of the project site parcel, which detected the presence of chlorinated solvents, tetrachloroethene (PCE), and trichloroethene (TCE) in groundwater and soil vapor above

current 2019 vapor intrusion screening levels for commercial properties. The source of the chlorinated solvents was determined to be up gradient to the east of the project site.

The assessment identified evidence of a *controlled recognized environmental condition* (CREC)[2] on the project site. A gasoline service station was operational on the project site from 1957 to 1974. Soil and groundwater contamination, with regard to petroleum-related impacts and underground storage tanks (USTs), were delineated and remediated under the State Water Resource Control Board's Low-Threat Underground Storage Tank Closure Policy. A Remedial Action Completion Letter was issued by the ACDEH in May 2022. Several post-closure site management requirements were identified for the site, including notifying ACDEH if a change in land use or site redevelopment is proposed at the project site as additional investigation and corrective actions may be required to address potential contaminants beneath the project site. For these reasons, a Phase II ESA was prepared for the project.

A Phase II ESA was prepared in February 2025 to evaluate the current environmental conditions beneath the project site (Ninyo & Moore 2025). The Phase II ESA concluded that tetrachloroethene (PCE) and trichloroethene (TCE)[3] have concentrations exceeding Tier 1 environmental screening levels (ESLs)[4] in soil vapor at the project site, with some detections exceeding commercial ESLs. Additionally, benzene may also be a contaminant of potential concern in the site soil vapor. Benzo[a]pyrene, arsenic, cobalt, selenium, vanadium, DDT and chlordane were the only potential contaminants of potential concern that were detected in soil at concentrations exceeding Tier 1 ESLs, and of these, only arsenic exceeded commercial and construction worker ESLs. However, concentrations were below typical background levels for urbanized soils in the San Francisco Bay region. Ground-disturbing activities associated with project construction could result in exposure of contaminants at the project site into the environment, resulting in a hazard to the public and environment.

ACEHD is providing regulatory oversight over the hazardous materials investigations and cleanup of hazardous materials at the project site under a Voluntary Remedial Action Agreement between ACEDH and ACFD. ACEHD has reviewed the Phase II ESA and is requiring additional soil vapor sampling and soil sample analyses for thallium. The revised Phase II ESA will inform preparation of the Site Conceptual Model (SCM) and a Soil and/or Groundwater Remedial Action Plan, required by ACEHD, to address contamination issues at the project site. The Site Conceptual Model provides the characterization of the project site

[2] A CREC is a past release of hazardous substances or petroleum products that has been addressed by regulatory authorities.
[3] Tetrachloroethene and trichloroethene are both chlorinated volatile organic compounds
[4] Environmental screening levels (ESLs) are established by the San Francisco Bay Regional Water Quality Control Board. ESLs provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. Tier 1 ESLs are based on residential land use.

based on the data collected in the Phase II ESA and any subsequent investigations and the Soil and/or Groundwater Remedial Action Plan outlines the measures and procedures for cleaning up contaminated soil and groundwater at the project site. These measures may include, but are not limited to, soil excavation and disposal, installation of a vapor intrusion mitigation system, targeted remediation for contaminated soil, capping of contaminated soil, groundwater management (if encountered), and removal of soil vapor probes prior to excavation. With implementation of the Soil and/or Groundwater Remedial Action Plan, as required by ACEHD, impacts would be less than significant.

E) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project result in a safety hazard or excessive noise for people residing or working in the project area?

The project site is within 2 miles of the Hayward Executive Airport and within the airport influence area. The Hayward Executive Airport Land Use Compatibility Plan (ALUCP) defines noise impact zones and noise contours associated with operations of the airport. The proposed project site is not within a noise impact zone identified in the ALUCP. The proposed project would not result in excessive noise for people residing or working in the project site vicinity.

The Hayward Executive Airport ALUCP defines seven safety zones within the vicinity of the airport. The project site is located within Zone 6 – Traffic Pattern Zone. The ALUCP defines safety compatibility criteria for various land uses. The proposed project does not fall within any of the land uses in the ALUCP. Therefore, an office land use is used as a proxy for the fire station use. Offices are considered a permitted use within Zone 6 and compatible with airport operations. Additionally, the proposed project does not contain any land uses of particular concern including, day care centner, health care facilities, schools, or family day care homes. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project site vicinity. The impact would be less than significant.

F) Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The proposed project would construct a new Fire Station 22 on Paseo Grande to improve emergency and disaster response within the San Lorenzo community. The proposed project would be located on an existing site containing the necessary transportation infrastructure and roads for emergency access. Construction vehicles would utilize existing roadways for access to the project site. Project construction would not require any temporary or permanent road closures such that emergency vehicles would be unable to access the site or surrounding areas. Additionally, the existing fire station would remain operational during construction activities. Therefore, the implementation of the proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

G) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The proposed project is within an urbanized area and not located in an area that would be susceptible to wildland fires. Therefore, no wildfire hazards impacts would occur.

3.2.10 Hydrology and Water Quality

Environmental Impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Environmental Setting

The proposed Fire Station 22 site is in an urbanized area of San Lorenzo and drains into the Alameda County storm drain system which, in turn, drains into open drainage channels that ultimately discharge to San Francisco Bay. This site is already mostly covered with impervious surfaces. Water quality in stormwater from this site is affected by urban stormwater runoff.

The project site is not in a FEMA-mapped flood hazard zone (Alameda County, n.d.-a). In addition, the site is not in an area subject to tsunami or seiche hazards (Alameda County, n.d.-b). Groundwater at the Fire Station 22 site was encountered at a depth of approximately 15 feet

below the ground surface during the geotechnical field evaluation. Groundwater may rise to a level higher than observed due to the relatively low seepage rate in clay and limited time for observation during the field evaluation. The geotechnical report assumes a high groundwater level of 6 feet below ground surface for analysis (Ninyo & Moore 2024).

Discussion

A) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Construction

The Fire Station 22 site is located on a developed site in an urban area. Construction of Fire Station 22 would require soil disturbance and use of heavy equipment that could spill fuels or hydrocarbons, which have the potential to contribute to stormwater runoff if not properly contained. The Fire Station 22 project site is less than 1 acre in size and, therefore, does not need to obtain coverage under the State of California Construction Stormwater General Permit (Order 2022-0057-DWQ). Alameda County has adopted Stormwater Management and Discharge Control Ordinance codified in Alameda County Code Chapter 13.08. In addition, the Alameda County Clean Water Program C.3 and C.6 permit defines additional requirements for stormwater management during construction and operation. The proposed project would need to comply with Alameda County C.3, C.6, and Stormwater Management and Discharge Control requirements, including implementation of erosion control *best management practices* (BMPs). Alameda County would review the erosion control BMPs as part of the proposed project's grading permit. Compliance with C.6 permit requirements and the County Stormwater Management and Discharge Control Ordinance, would ensure that Fire Station 22 construction would have a less than significant impact on water quality and would not cause violation of any permit.

Operation

This Fire Station 22 project site is in a fully urbanized and developed area that contains imperious surfaces. Therefore, post-construction runoff at the project site would not be substantially affected by the proposed project. The proposed project would comply with the requirements of Alameda County C.3 permit, including requirements for post-project runoff. The final design for Fire Station 22 would be reviewed for compliance with the C.3 permit requirements to ensure that post-project runoff does not contribute substantially to surface water quality. Because the project would comply with C.3 permit requirements, operation of Fire Station 22 would have a less-than-significant impact on water quality.

B) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Water for Fire Station 22 would be obtained from municipal supplies, and the proposed project would not create increased demand for groundwater supplies. The proposed replacement Fire Station 22 would be built on a site that is already mostly covered by impervious surfaces. Development of Fire Station 22 would thus have a less than significant impact on groundwater recharge and would have no impact on sustainable groundwater management.

C) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

iv) impede or redirect flood flows?

No flood flows would be impeded or re-directed because the site is not within a FEMA-mapped flood hazard zone.

Construction and operation of the proposed Fire Station 22 would not increase runoff from the site or re-direct any flows because the Fire Station 22 site is located on a fully-developed urban site. Runoff from the proposed project site would continue to flow into existing storm drain systems. The proposed project would not cause substantial erosion because BMPs implemented during construction would limit potential for off-site erosion. In addition, the proposed project would not increase the rate or amount of runoff because no increase in impervious surfaces would occur. Therefore, the impact from development of Fire Station 22 on erosion and runoff would be less than significant.

D) Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As described in "Environmental Setting," above, the project site is located inland and is not within a flood, seiche, or tsunami hazard area. Therefore, the project would not increase the risk of pollution from flooding, tsunami, or seiche. **No impact** would occur.

E) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above, Fire Station 22 is located on a developed site that is mostly covered with impervious surfaces. The proposed project would not affect infiltration of rainwater into the groundwater. Therefore, the proposed Fire Station 22 would not impede any plans for groundwater management. In addition, as described above, the proposed project would comply with all State, federal, and local water quality plans by complying with Alameda County C.3. and C.6 permit requirements. Therefore, the impact from conflict with a water quality control plan would be less than significant.

3.2.11 Land Use and Planning

Environmental Impacts	Potentially Significant Impact	Less-than-Significant with mitigation incorporated	Less than Significant Impact	No Impact
11. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

A) Would the Project physically divide an established community?

The Station 22 site is located on a vacant lot within an established urbanized area. The proposed project would not construct new roads, linear infrastructure, or other development features that would physically divide any community. No impact would occur.

B) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project is zoned SLZSP C1: Retail Business District and within an area designated as Commercial land use. The project site is located within the San Lorenzo Village Center Specific Plan. The proposed project would comply with applicable Alameda County General Plan (Alameda County Community Development Agency 2022) policies, building codes, and development standards. The applicable general plan standards and polices include the following:

- **Goal 1, P8.** The County shall ensure that new major public facilities, including emergency response facilities (e.g., hospitals and fire stations), and water storage, wastewater treatment and communications facilities, are sited in areas of low geologic risk.

As discussed in Section 3.2.7, Geology and Soils Fire Station 22 is not located within a mapped Earthquake Fault Zone, an area prone to earthquake induced landslides, or an area of expansive soils. The Project site is located within a strong seismic shaking zone and could be subject to liquefaction but would be designed to meet current California Building Code standards. Therefore, the project would be consistent with the Goal 1, P8. Additionally, the proposed project would comply with all relevant policies within the San Lorenzo Village Center Specific Plan. Therefore, the proposed project would not conflict with any land use plan, policy, or regulation. The impact would be less than significant.

3.2.12 Mineral Resources

Environmental Impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less than Significant Impact	No Impact
12. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Impact Analysis

A) Would the Project Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

B) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The Fire Station 22 project site is within MRZ-1 as designated by the California Department of Conservation (Stinson, Manson, and Plappert 1982). MRZ-1 zones are categorized as areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. The project site is within an urbanized area, surrounded by commercial and residential uses that are not compatible with mineral resource extraction activities. The site is not located within, adjacent, or near existing mining operations or known mineral resources (Division of Mine Reclamation, California Department of Conservation, n.d.) The proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. No impact to mineral resources would occur.

3.2.13 Noise

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less than Significant Impact	No Impact
13. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Environmental Setting

Existing Noise Environment

The primary sources of noise in the vicinity of the project site include traffic on nearby roadways and other noise common in residential settings. Ambient sound monitoring was conducted for the San Lorenzo Senior Housing Project, located about 480 feet northeast of the project site, and ambient sound levels along Hesperian Boulevard and Paseo Grande in the vicinity of the project site, and sound levels at those points were measured at 71.6 dBA L_{eq} and 60.8 dBA L_{eq}, respectively (ICF International 2014).

Noise Standards

Federal and State Guidance

Federal Transit Administration

The Federal Transit Administration (FTA) has developed a general construction noise threshold of 90 dBA L_{eq} at the nearest noise-sensitive receptor. According to the FTA, if the combined sound generated the two loudest pieces of equipment over a 1-hour averaging period exceeds the 90 dBA threshold at a residential land use (or other noise-sensitive receptor), then there may be a substantial adverse impact.

In addition, the FTA has developed vibration thresholds to prevent disturbances to (i.e., annoyance of) building occupants based on the frequency of a vibration event (FTA 2006). Vibrations that are equal to or exceed the vibration thresholds could result in disturbance to people or disruption of normal activities. The FTA thresholds of 80 VdB and 83 VdB for

infrequent events[5] are used in this analysis to evaluate disturbance to residences and buildings where people normally sleep and institutional land uses with primarily daytime use (such as schools), respectively.

California Department of Transportation

The California Department of Transportation (Caltrans) has developed vibration thresholds based on peak particle velocity (PPV) values to evaluate the potential impact of construction vibration on structures and prevent damage to nearby buildings (Caltrans 2020). Construction vibrations that are equal to or exceed the vibration thresholds could result in damage to structures. Construction vibrations could include transient sources (i.e., a single isolated vibration event), such as construction blasting, and continuous or frequent intermittent sources, such as impact pile drivers, vibratory pile drivers, and vibratory compaction equipment. The Caltrans vibration thresholds are listed in Table 3.2-8, below.

Table 3.2-8 Vibration Thresholds for Structural Impacts

Structure and condition	Maximum peak particle velocity (inches/second)	
	Transient source	Continuous or frequent intermittent source
Extremely fragile historic buildings, ruins	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern commercial buildings	2.0	0.5

Notes:

Transient sources create a single isolated vibration event, such as blasting. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: (Caltrans 2020)

Alameda County Noise Ordinance

Alameda County regulates noise via the County's Noise Ordinance (Code of Ordinance Chapter 6.60). Section 6.60.040 establishes exterior noise level standards based on receiving land use. In accordance with section 6.60.070, the County Noise Ordinance does not apply to noise sources associated with construction if the construction activities occur between 7:00 a.m. and

[5] *Infrequent event* is defined an event that occurs at a rate of less than 30 per day. The "infrequent events" threshold is appropriate for construction equipment in this analysis based on the nature of proposed construction activities.

7:00 p.m. on weekdays, or between 8:00 a.m. and 5:00 p.m. on weekends. Warning devices for public safety such as fire sirens are exempt from the County Noise Ordinance requirements. Chapter 6.60.050.B prohibits the generation of vibration levels above the vibration perception threshold at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way.

Table 3.2-9 Alameda County Exterior Noise Level Standards

Cumulative number of minutes in any 1-hour time period	Daytime (7 a.m. to 10 p.m.) threshold (dBA)	Nighttime (10 p.m. to 7 a.m.) threshold (dBA)
Single- or multiple-family residential, school, hospital, church, and public library		
30	50	45
15	55	50
5	60	55
1	65	60
0	70	65
Commercial uses		
30	65	60
15	70	65
5	75	70
1	80	75
0	85	80

Source: Alameda County Code of Ordinance Chapter 6.60.040 (Alameda County, n.d.-d).

Sensitive Noise Receptors

Noise-sensitive land uses typically include residences, motels and hotels, schools, libraries, houses of worship, hospitals, convalescent homes, and parks and outdoor recreation areas. The noise-sensitive receptors in the vicinity of the project site include the following: residences approximately 30 feet to the northwest, 55 feet to the west, 170 feet to the south, 670 feet to the northeast, and 220 feet to the east; the Franskin Day Care approximately 685 feet to the south; the Arbor at Hesperian, elderly housing, approximately 480 feet to the northeast; the San Lorenzo Library approximately 370 feet to the northeast; the San Lorenzo Library playground approximately 510 feet to the northeast; the Lollipop Lane Preschool approximately 630 feet to the east; and the Marseille Delgado Crayolas Daycare approximately 940 feet to the northwest.

Impact Analysis

A) Would the proposed project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Construction of the proposed project is anticipated to begin in 2026 and last approximately 18 months. The proposed project would include activities such as demolition, site preparation, grading, building construction, and paving. Heavy equipment used for construction activities would include, but not be limited to, dozers, graders, forklifts, backhoes, cranes, industrial saws, and paving equipment. No pile driving would occur. Construction of the proposed project would occur between the hours of 7:00 a.m. and 5:00 p.m., Monday through Friday, with occasional construction on weekends between 8:00 a.m. and 5:00 p.m. No nighttime construction is expected for the proposed project. Therefore, the proposed project would be exempt from the Alameda County Noise Ordinance.

For construction noise impact, speech interference is used as an indicator for substantial increases in noise levels at nearby noise-sensitive receptors during project construction. In accordance with Caltrans Traffic Noise Analysis Protocol (California Department of Transportation (Caltrans) 2020), 67 dBA is the approximate sound level at which the noise interferes with human speech, assuming two people are conversing. Standard building structures provide approximately 12 to 17 dBA noise attenuation with windows open (U.S. Environmental Protection Agency (EPA) 1974). With windows closed, the noise attenuation factor is about 20 dBA for older structures and about 25 dBA for newer dwellings. Assuming windows closed and an older structure, speech interference could occur when exterior noise levels exceed 87 dBA. The 87 dBA speech interference threshold, which is more conservative than the FTA 90 dBA threshold, is used in this analysis.

Construction noise levels would vary from day to day, depending on the number and type of equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers, if any, between the noise source and receptor. Pile driving, which can generate extreme levels of noise, is not proposed as part of the project.

To evaluate noise levels during project construction, a list the types of construction equipment that would be used for the proposed project was generated using the most recent version of the California Emissions Estimator Model (CalEEMod, version 2022.1.1), using the provided default equipment list for the land use and type of construction. The default construction equipment list is based on a combination of statewide and regional surveys of land use construction projects. In accordance with guidance from FTA, daytime construction noise impacts were evaluated by quantifying the maximum noise levels that would result from the simultaneous operation of the two loudest pieces of equipment near the perimeter of the project development area closest to a sensitive receptor. Noise calculations are provided in Appendix B.

Table 3.2-10 lists the estimated sound levels generated by construction of the proposed project at the nearest residential, institutional (e.g. pre-school, school, and public library), and recreational land uses, which were assumed to be 30 feet to the northwest, 370 feet to the northeast, and 510 feet to the northeast of proposed construction activities, respectively. As shown in, Table 3.2-10, project construction would generate sound levels that could exceed the 87 dBA L_{eq} noise threshold by up to 3 dBA L_{eq} at the at the nearby residential, school, and recreational receptors without implementation of any noise-reduction measures.

Table 3.2-10 Potential Noise Impacts from Project Construction (dBA Leq[a])

Construction phase	Nearest residential receptor (30 feet distance)	Nearest Institutional receptor (370 feet distance)[b]	Nearest recreational receptor (510 feet distance)
Demolition	90	68	65
Site preparation	88	67	64
Grading	88	67	64
Building construction	87	65	62
Paving	89	68	65
Exceed the 87 dBA threshold?	**Yes**	**No**	**No**
Noise attenuation needed (dBA)	**–3**	**Not needed**	**Not needed**

Notes:

[a] The average A-weighted noise level during a 1-hour period.

[b] The nearest residential, institutional, and recreational land uses are the single-family home about 30 feet to the northwest, the San Lorenzo Library about 370 feet to the northeast, and the San Lorenzo Library playground about 510 feet to the northeast of the project site, respectively.

Source: (Baseline Environmental Consulting 2025b)

In order to reduce potential noise impacts related to project construction, the project would implement Mitigation Measure NOI-1, which requires implementation of a construction noise management plan. Implementation of NOI-1 would reduce construction noise levels by up to 18 dBA L_{eq}, ensuring that project construction would not result in excessive noise levels at nearby sensitive receptors. Therefore, impacts would be less than significant with implementation of mitigation.

Operation

The new fire station will be located approximately 300 feet from the existing fire station. The primary sources of noise from operation of the existing fire station would be on-site vehicle maintenance and movements, fire sirens when responding to emergency calls, and the use of stationary equipment such as an emergency generator. Existing fire station operations and maintenance would be transferred to the new fire station, including the apparatus bays, offices,

sleeping rooms and lockers, workshops, training rooms, and fleet vehicles. The existing generator and vehicle fueling station would be replaced in kind.

The existing 75-kilowatt emergency diesel generator would be replaced with a 200-kilowatt emergency diesel generator. The new generator would be placed on a concrete pad east of the new fire station within an enclosure. Although the new generator would be larger compared to the existing generator, the noise generated by the new generator would be similar to the existing condition because the generator would be enclosed and only operate for daytime periodic testing and emergencies. The new fueling tank would feature a 1000-gallon aboveground tank, which would be placed within an enclosure. The project would not change the number of employees and the service area of the fire station, or the number of emergency calls the employees respond to per month. Therefore, the on-site noise generated by the fire station operations described above would be substantially the same as the existing condition and would not result in a substantial increase in noise levels at nearby sensitive receptors.

In addition, it was conservatively assumed that the project would include a heating, ventilation, and air conditioning (HVAC) system. Although the noise-generating characteristics and location of the HVAC system for the project was not available at the time of preparation of this analysis, noise from a typical commercial-scale HVAC system can range from approximately 65 to 75 dBA at 50 feet, having the potential to exceed the thresholds listed in Table 3.2-9 at nearby residential land uses (50 dBA during the daytime and 45 dBA during the nighttime). To reduce potential noise impacts related to HVAC operation, the project would implement Mitigation Measure NOI-2, fixed mechanical equipment noise control for building operation. Implementation of Mitigation NOI-2 would ensure the Proposed Project's HVAC operation would not result in excessive noise levels at nearby sensitive receptors. Therefore, impacts would be less than significant with implementation of mitigation.

B) Would the proposed project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Groundborne vibrations would be generated during project construction because of the use of construction equipment and the presence of truck traffic. Construction activities can result in varying degrees of ground vibration depending on the equipment, activity, and soil conditions. Construction of the proposed project would require the use of bulldozers, rollers, and trucks that could generate groundborne vibration. To evaluate the project's potential vibration effects on nearby sensitive receptors, a buffer distance that would be needed to avoid exceeding the FTA and Caltrans construction vibration thresholds mentioned above was estimated for each type of equipment. It was conservatively assumed that the equipment that could generate substantial ground vibration would be used near the project site boundaries. The estimated buffer distances for potential disturbance and building damage are listed in Table 3.2-11 and Table 3.2-12 respectively.

The potential vibration levels generated by each type of construction equipment were estimated at 150 feet from the project site to evaluate the potential vibration disturbance impact. The estimated vibration levels at 150 feet are also listed in Table 3.2-11.

Table 3.2-11 Potential Vibration Disturbance during Construction

Construction equipment	Vibration levels at 150 feet (VdB)	Buffer distances to prevent potential human disturbance (feet)	
		Institutional (Threshold: 83 VdB)[a]	Residential (Threshold: 80 VdB)[b]
Vibratory roller	71	58	73
Large bulldozer	64	34	43
Loaded trucks	63	31	40
Small bulldozer	35	4	5
Exceed the 75 VdB at 150 feet Threshold?	**No**	**Not applicable**	**Not applicable**

Notes:

[a] The FTA thresholds of 83 VdB for institutional land uses with primarily daytime use (such as schools) from infrequent construction events was used to calculate the buffer distances from construction equipment.

[b] The FTA thresholds of 80 VdB for residences and buildings where people normally sleep from infrequent construction events was used to calculate the buffer distances from construction equipment.

Source: (Baseline Environmental Consulting 2025b)

Table 3.2-12 Potential Vibration Damage to Buildings during Construction

Construction equipment	Buffer distances to prevent potential structural damage (feet)	
	Modern commercial (threshold: 0.5 inches per second)[a]	Residential (threshold: 0.3 inches per second)[b]
Vibratory roller (undefined tonnage)	14	20
Large bulldozer	8	11
Loaded trucks	7	10
Small bulldozer	1	1

Notes:

[a] The Caltrans vibration threshold of 0.5 in/sec for modern commercial buildings was used to calculate the buffer distances from construction equipment for the nearby commercial buildings.

[b] To be conservative, the Caltrans vibration threshold of 0.3 in/sec for older residential structures was used to calculate the buffer distances from construction equipment for the nearby residences.

Source: (Baseline Environmental Consulting 2025b)

As shown in Table 3.2-11, vibration levels 150 feet from construction equipment would not exceed the 75 VdB threshold for human disturbance. The construction equipment that would require the largest buffer distance to avoid generating vibration levels that could cause human disturbance is the vibratory roller. Vibration from a vibratory roller could exceed the 83 VdB threshold at institutional land uses located within 58 feet of the project site, as shown in Table 3.2-12. The closest institutional land use, the San Lorenzo Library, is approximately 370 feet from the project site and would be outside the required buffer distance. Therefore, construction activities would not generate excessive vibration levels that could potentially disturb normal library operations. Vibration from a vibratory roller could exceed the 80 VdB threshold at residences and other buildings where people normally sleep within 73 feet of the project site. The closest residential land use is about 30 feet away from the project site. Therefore, construction activities could generate excessive vibration levels that would potentially disturb residential activities. As mentioned above, project construction activities would generally be conducted during daytime hours, from 7 a.m. to 5 p.m., Monday through Friday, and possibly on weekends between 8 a.m. and 5 p.m. No nighttime construction is expected for the proposed project. Any impact related to noise and vibration would be restricted to normal daytime hours and would reduce the likelihood of disturbance to residents (e.g., sleep disturbance). As vibration annoyance impacts on people within residential buildings due to nighttime construction would not occur, construction activities would not be expected to generate excessive vibration levels that would disturb nearby residents.

Structures near the project site that could potentially be damaged by groundborne vibration include residences approximately 30 feet to the northwest and the Public Storage facility approximately 15 feet to the north. As shown in Table 3.2-12, the construction equipment that would require the largest buffer distance to avoid generating vibration levels that could potentially damage a nearby structure is the vibratory roller. A vibratory roller would require a 14-foot buffer to avoid potential damage to the Public Storage Facilities and a 20-foot buffer to avoid potential damage to the nearby residential buildings. Because the residences and Public Storage facility are outside of the required buffer distances, project construction would not generate vibration levels above the Caltrans building damage thresholds. Therefore, project construction activities would not generate excessive vibration levels that could potentially cause structural damage. The impact would be less than significant.

Operation

Operation of the proposed project would not involve equipment or activities that would generate excessive groundborne vibration or groundborne noise levels. Therefore, project operation would not generate excessive groundborne vibration in areas around the Project site. The impact would be less than significant.

C) For a proposed project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels? ***(Less than Significant)***

As discussed in Section 3.2.9, Hazardous Materials, Fire Station 22 is located within two miles of Hayward Executive Airport and falls within its influence area. However, the proposed project

site is not within a noise impact zone per the ALUCP, and the proposed project would not create excessive noise for nearby residents or workers. The project site is within Safety Zone 6 (Traffic Pattern Zone), where a fire station is considered a permitted land use. Additionally, the fire station would have modern construction and would not expose people in the fire station to excessive noise levels. Therefore, this impact would be less than significant.

Mitigation Measures

Mitigation Measure NOI-1: Implementation of a Construction Noise Management Plan
During construction the following noise reduction measures shall be implemented:

- The contractor shall properly muffle and maintain all construction equipment powered by internal combustion engines.
- Idling of combustion engines shall be limited to a maximum of 5 minutes.
- All stationary noise-generating construction equipment, such as air compressors, shall be located as far as practical from existing nearby residences. To the extent feasible, such equipment shall also be acoustically shielded with partial enclosures or temporary noise barriers.
- Quiet construction equipment, particularly air compressors, shall be selected whenever possible. Fit motorized equipment with proper mufflers in good working order.
- Temporary noise barriers (minimum 8 feet in height) shall be constructed or used along the project northern perimeter to shield construction and demolition noise from noise-sensitive receptors to the extent feasible. Examples of barriers include solid plywood construction barrier and/or construction noise barrier blankets on temporary fencing. These noise barriers shall be installed without cracks or gaps in the face or large or continuous gaps at the base. The materials used to construct the noise barrier shall have a minimum surface weight of 2.5 lb./sq. ft., such as 3/4" plywood panels. Construction noise barrier blankets shall have a minimum Sound Transmission Class (STC) rating of 25. Temporary noise barriers shall be in place during demolition, site preparation, and grading phases of construction. Temporary noise barriers are not required during the building construction phase.
- Residences adjacent to project sites shall be notified 14 days in advance of construction. The notification shall include information regarding construction schedule and contact information for a noise a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise.
- The contractor shall designate a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem. A telephone number for the noise disturbance coordinator shall be posted at the construction site.

Mitigation Measure NOI-2: Fixed Mechanical Equipment Noise Control for Building Operations

The following noise-reduction measures shall be implemented to reduce potential HVAC noise impacts at the nearby noise-sensitive receptors:

- Enclosing noise-generating mechanical equipment, if feasible
- Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment
- Using mufflers or silencers on equipment exhaust fans, if feasible
- Orienting or shielding equipment to protect noise-sensitive receptors to the extent feasible
- Increasing the distance between noise-generating equipment and noise-sensitive receptors
- Placing barriers around the equipment to facilitate the attenuation of noise

.

3.2.14 Population and Housing

Environmental Impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
14. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

A) The proposed Project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

B) The proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The proposed project would construct a new fire station on Paseo Grande in San Lorenzo. The proposed project would replace the existing fire station, and no new homes or businesses would be constructed. The three employees at the existing fire station would be transferred to the new fire station. No new employees would be hired as a result of the proposed project. Therefore, the proposed project would not directly induce unplanned population growth. The project site is serviced by existing utilities and would not include the extension of roads or other infrastructure. No impact from population growth would occur.

The proposed project site for Fire Station 22 consists of a vacant lot. The proposed project would not involve the displacement or relocation of any existing people or housing units. The proposed project would include dormitories for firefighters to utilize during their work shift and would not be considered permanent housing. Therefore, the proposed project would have no direct impact related to the displacement of housing units and would not necessitate construction of any replacement housing elsewhere that could result in physical environmental effects. Therefore, the proposed project would have no direct impact related to the displacement of housing units and would not necessitate construction of any replacement housing elsewhere that could result in physical environmental effects. No impact would occur.

3.2.15 Public Services

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
15. PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Impact Analysis

A) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services.

Fire Protection

The ACFD provides fire protection services to unincorporated Alameda County, including San Lorenzo (Alameda County Community Development Agency 2012). The proposed project would construct a new fire station (Fire Station 22) to provide fire services to the surrounding community. The proposed project would upgrade and replace outdated facilities in order to reduce emergency response times and enhance disaster response. The proposed project would support future fire protection services and would have no adverse impact to the provision of fire protection services.

Police Protection

The Alameda County Sheriff's Office provides police protection services to unincorporated Alameda County, including San Lorenzo. The Alameda County Sheriff's Office consists of 1,700 positions, with approximately 1,000 sworn personnel. The proposed project would replace the existing Fire Station 22 with a new fire station. The new fire station would not affect police department response times or require new police facilities. Therefore, the proposed project would have a no adverse impact related to police protection services.

Schools
The proposed project would not generate population growth that would introduce new children to the area or otherwise affect any schools. No impact would occur.

Parks
The fire station would house firefighters who would remain on site during their shifts and would not use or create increased demand for parks. The proposed project would also not induce population growth or otherwise create demand for parks. Therefore, the proposed project would have no impact related to parks.

Other Public Facilities
The replacement fire stations would not create any new demand for other public facilities. No impacts to other public facilities from the proposed project would occur.

3.2.16 Recreation

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less than Significant Impact	No Impact
16. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

A and B) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed project would not include construction or expansion of any recreational facilities. Mervis Morris Park is located approximately 0.5-mile west of the project site. Additionally, the Arroyo Swim Center is located approximately 0.6-mile northwest of the project site. The proposed project would not restrict access to recreational facilities or their services during any phase.

As discussed in Section 3.2.14: Population and Housing, the proposed project would not directly or indirectly support substantial population growth. Therefore, the proposed project would not increase the use of neighborhood and regional parks or other recreational facilities or require the construction or expansion of recreational facilities such that it might have an adverse physical effect on the environment. No impact would occur.

3.2.17 Transportation

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
17. TRANSPORTATION. Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒

Environmental Setting

The project site is bounded by Hesperian Boulevard to the east, Paseo Grande to the south, and Paseo Largavista to the west. Regional access to the project site is provided by I-880, a north–south interstate highway that runs from San Jose to Oakland.

AC Transit provides bus services throughout Alameda County. Other public transit services include the Bay Area Rapid Transit (BART) Bay Fair and Hayward stations located approximately 1.26 miles and 2.4 miles from the project site, respectively. AC Transit bus route 97 operates along Hesperian Boulevard. The nearest 97 bus stop is located approximately 450 feet southeast of the project site. AC Transit bus route 93 stop is located at the intersection of Paseo Grande and Paseo Largavista approximately 5 feet south of the project site (Alameda-Contra Costa Transit District 2024).

An existing Class III bicycle route is located along Paseo Grande. Class II bikeways are proposed along Paseo Grande and Hesperian Boulevard in the vicinity of the project site (Alameda County Public Works Agency 2019).

Impact Analysis

A) Would the proposed project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Construction

Project construction would generate additional vehicle travel on area roadways from construction-worker vehicles and truck trips associated with delivery of equipment and materials and removal of excavated material and waste. Construction of the proposed project would require approximately 10 truck trips per day and 30 vehicle trips per day. All vehicle and equipment staging would occur on site. No lane or road closures would be required during

construction activities. The existing Fire Station 22 would remain operational during project construction

As discussed above, an AC Transit bus route 93 stop is located at the intersection of Paseo Grande and Paseo Largavista approximately 5 feet south of the project site. Access to the bus route 93 stop would remain during project construction. The proposed project would not degrade public transit access as all public transit in proximity to the project would remain accessible. Therefore, implementation of the proposed project would not conflict with plans, programs, and policies regarding transit facilities or decrease the performance of such facilities. Impacts would be less than significant.

Hesperian Avenue, located 260 feet east of the project site, is considered a major bicycle route. Construction activities would not require the temporary or permanent closure of any identified bicycle routes. Sidewalks provide pedestrian access to the project site. As discussed above, no lane or road closures would occur that would interfere with pedestrian or bicycle access. Temporary sidewalk closures may occur during construction of the proposed project driveways. While the sidewalk closure would be temporary, the closure would degrade public access and result in a significant impact if safe detours were not provided. Mitigation Measure TRAN-1 requires the preparation and implementation of Transportation Management Plan in accordance with the California Manual on Uniform Traffic Control (MUTCD), which would include measures for protecting pedestrians and bicyclists surrounding the project sites. Additionally, Mitigation Measure TRAN-1 requires the use of flaggers and signage where appropriate to redirect pedestrians around sidewalks closures and prevent conflicts with construction traffic. Therefore, the proposed project would not conflict with plans, programs, and policies regarding bicycle, pedestrian, or transit facilities or decrease the performance of such facilities with implementation of Mitigation Measure TRAN-1. Impacts would be less than significant with mitigation incorporated.

Operation

The proposed project would not affect area roadways or increase daily vehicle traffic. The existing 47-foot-wide northern driveway on Paseo Largavista would provide ingress/egress for staff vehicles and fire engines and the existing 37-foot-wide southern driveway connecting with Paseo Largavista would provide access for public parking Additionally, egress for the fire engines would be provided by a newly expanded 36-foot-wide driveway on Paseo Grande. The driveways would be able to accommodate the wide turns from the fire engines and other large vehicles. Therefore, implementation of the proposed project would not conflict with plans, programs, and policies regarding transportation facilities, or decrease the performance of such facilities. Impacts would be less than significant.

B) Would the proposed project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

In accordance with the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, section 21099 of the Public Resources Code states that the criteria for determining the significance of transportation impacts must promote 1) reduction of GHG emissions; 2) development of multimodal transportation networks; and 3) a diversity of land uses (Governor's Office of

Planning and Research [OPR] 2018). The Governor's Office of Planning and Research identifies a screening threshold for identifying small land use projects those that generate or attract fewer than 110 trips per day. Projects that generate fewer than this threshold may be assumed to cause a less-than-significant transportation impact (Governor's Office of Planning and Research [OPR] 2018).

During project construction, VMT would temporarily increase due to construction vehicles and equipment. Construction would require a maximum of 10 truck trips and 30 vehicle trips daily. The daily number of vehicle trips associated with the proposed project construction would not exceed 110 trips per day. Fire Station 22 responds to approximately 192 emergency calls per month and would generate low VMT. Operation of the new Fire Station 22 would not increase VMT as the existing service calls would be the same as the existing facility. The impact would be less than significant.

C) Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Construction

As discussed above, the proposed project would not require any lane or road closures during project construction. Temporary sidewalk closures would occur during construction, which would be a potential hazard for pedestrians in the area. The proposed project would implement Mitigation Measure TRAN-1, which includes a Traffic Management Plan that addresses pedestrian safety. In accordance with Mitigation Measure TRAN-1, flaggers and signage would be used where appropriate to redirect pedestrians around sidewalk closures and prevent conflicts with construction traffic. With implementation of Mitigation Measure TRAN-1, hazards to pedestrians would be less than significant.

Operation

The proposed project would not include any design features that would increase circulation hazards. No new roadways or access roads would be constructed for the proposed project. The proposed project would not require any lane or road closures, The existing 47-foot-wide northern driveway on Paseo Largavista would provide ingress/egress for staff vehicles and fire engines and the existing 37-foot-wide southern driveway on Paseo Largavista would provide access for public parking. Additional egress for the fire engines would be provided by a newly expanded 36-foot-wide driveway on Paseo Grande. The driveways would be able to accommodate the wide turns generated by the fire engines and would not include any dangerous intersections or sharp curves. No impact would occur.

D) Would the proposed project result in inadequate emergency access?

The purpose of the proposed project is to reduce emergency response times and improve disaster response by constructing a new Fire Station 22 on Paseo Grande. Driveways and access points would be designed for ingress and egress of fire trucks and other emergency vehicles. Therefore, the proposed project would have no impact on emergency access.

Mitigation Measures

Mitigation Measure TRAN-1: Transportation Management Plan
The Project shall prepare and implement a Transportation Management Plan as detailed below:

- The Transportation Management Plan shall be prepared in accordance with California Manual on Uniform Traffic Control to protect walking and cycling conditions surrounding the project site
- The Plan shall adhere to the complete streets guidance presented in Caltrans DIB-94 by providing a buffer between truck traffic and other roadway users.
- The Plan shall include use of flaggers and signage where appropriate to redirect direct pedestrians around sidewalk closures and prevent conflicts with construction traffic.
- The Plan shall include use of signage and barriers to separate pedestrians from construction activities.
- The Plan shall require advanced notice through posting of signs at least one week prior to sidewalk closures.

3.2.18 Tribal Cultural Resources

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
18. TRIBAL CULTURAL RESOURCES				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Environmental Setting

The Native American Heritage Commission (NAHC) was contacted to provide a Sacred Lands File search and provide a list of Native American tribes affiliated with the project region. The NAHC Sacred Lands File search for the proposed project was negative, indicating there are no known tribal cultural resources in the proposed project site vicinity. The NAHC contact list was used to complete consultation with Native American tribes. Consultation letters were delivered to eight tribal organizations. Response letters were received from Muwekma Ohlone Indian Tribe and Lisjan Nation. The response letter from Muwekma Ohlone Indian Tribe included a recommendation for a Muwekma Ohlone tribal monitor to be hired for cultural resource monitoring for this proposed project due to the presence of a Native American archaeological site north of the project site. Lisjan Nation requested consultation under AB 52. As a part of the consultation, the Lisjan Nation requested that archaeological testing occur prior to the start of project construction to assess the presence or absence of archaeological resources on the Fire Station 22 site. On December 2 through 4, 2025, Archaeological/Historical Consultants (A/HC) completed hand auger tests to a depth of 5.5 feet. A/HC also monitored geotechnical borings that were completed at the project site during this time. No cultural soils or archaeological

resources were observed during the geotechnical work or hand auger archaeological testing (AHC 2024).

Impact Analysis

A) (i-ii) Would the proposed project result in an impact on a tribal cultural resource pursuant to Section 21074 of the PRC or the contextual setting of such a resource, resulting in a substantial loss of the resource's cultural value?

Although no archaeological resources were observed during the geotechnical work or the archaeological testing, the project site is still determined to have high sensitivity for tribal cultural resources due to the known tribal archaeological site located on the parcel directly north of the project site, which may extend into the Fire Station 22 parcel. Construction of the proposed project may disturb a known tribal cultural resource, which would be a significant impact. In addition, previously unidentified tribal cultural resources may be inadvertently discovered during ground-disturbing activities associated with the proposed project. If tribal cultural resources are inadvertently discovered, damage to those resources during construction would be a significant impact. Consistent with the responses from the Muwekma Ohlone Indian Tribe and the Confederated Villages of Lisjan Nation, Mitigation Measure CUL-1 requires tribal cultural resources sensitivity training for work crews prior to ground disturbing activities. Mitigation Measure CUL-2 requires archaeological monitoring by a Native American monitor during construction activities. Mitigation Measure CUL-2 also requires work to halt within 50 feet of a previously undiscovered cultural resource, and the Native American monitor would assess the find if the artifacts are of Native American ancestry and determined to be more than an isolated find. If human remains are discovered during ground disturbing activities, Mitigation Measure CUL-3 would be implemented which requires all work within 50 feet of the remains to halt and notification of the County Coroner. If the remains are determined to be of Native American descent, the NAHC would be contacted within 24 hours of the identification. The NAHC would identify a Native American MLD to inspect the site and provide recommendations for the proper treatment of the remains and any associated funerary objects. The impact on tribal cultural resources would be less than significant with implementation of Mitigation Measures CUL-1, Mitigation Measure CUL-2, and Mitigation Measure CUL-3.

Mitigation Measures

Mitigation Measure CUL-1: Tribal Cultural Resources Sensitivity Training

Mitigation Measure CUL-2: Cultural Resource Monitoring

Mitigation Measure CUL-3: Impact to Previously Undiscovered Human Remains

3.2.19 Utilities and Service Systems

Environmental impacts	Potentially Significant Impact	Less than Significant with mitigation incorporated	Less-than-Significant Impact	No Impact
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

A) Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project is located on a vacant lot in an urbanized area. The proposed project would require new utility hookups and would be served by existing utilities and service systems, including water, sewer, electricity, telecommunication, and waste disposal. The proposed project would not require the relocation or construction of new or expanded utilities and service systems. The impact would be less than significant.

B) Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Water for the proposed project would be supplied by the East Bay Municipal Utilities District. The proposed project would replace existing Fire Station 22 and would not create increased or new demand for water supplies. The proposed project would have no impact related to water supplies.

C) Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project is within the Oro Loma Sanitary District service area. The proposed project would replace existing Fire Station 22 and would not create new or increased need for wastewater treatment. Therefore, the Oro Loma Wastewater Treatment Plant would have adequate capacity to serve the proposed project's project wastewater and no impact on wastewater treatment capacity would occur.

D) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? ***(Less than Significant)***

E) Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

All solid waste generated by project construction activities would be hauled from the project site and disposed of at a permitted solid waste facility. As discussed in Section 2: Project Description, the nearest landfills to the project site include Hayward Transfer Station and the Vasco Road Sanitary Landfill. Demolition waste would be managed and recycled in compliance with CALGreen Building Code requirements whereby 65 percent of non-hazardous demolition waste would be recycled. The proposed project would also follow policies outlined in the Alameda County Green Building Ordinance, which requires recycling of construction and demolition debris (Alameda County 2003). Construction of the proposed project, including excavation and demolition activities, may encounter and generate hazardous waste, which would be disposed of at a Class I or Class II landfill, as appropriate.

Once the proposed project is constructed, operation and maintenance activities would not generate more solid waste than the existing fire station. Accordingly, impacts on waste reduction and waste management would be less than significant.

3.2.20 Wildfire

Environmental impacts	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Impact Analysis

A-D) Substantially impair an adopted emergency response plan or emergency evacuation plan? Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? Expose people or structures to significant risks; including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage patterns.

The proposed project is within an urbanized area in San Lorenzo in a designated Local Responsibility Area (LRA). The topography of the project site is relatively flat. The project site is not located within an identified Very High Fire Hazard Severity Zone in an SRA or a LRA (CAL FIRE 2023). The project site is not located near wildlands that could present a fire hazard. For these reasons, Impacts Wildfire-a through Wildfire-d are not applicable and not discussed further.

3.2.21 Mandatory Findings of Significance

Environmental impacts	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
21. MANDATORY FINDINGS OF SIGNIFICANCE:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis

A) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As noted under Section 3.2.4: Biological Resources, special status wildlife species have no potential to occur at the Fire Station 22 project site. No breeding habitat for any sensitive species occurs within any of the project sites. No sensitive plants or fish could occur within any of the project sites. Due to the absence of any sensitive species breeding habitat on any of the project sites, the projects would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce or restrict the range of a rare or endangered plant or animal, and the impact would be less than significant.

Native American archaeological site is located adjacent Fire Station 22. As discussed in Section 3.2.5: Cultural Resources, Mitigation Measure CUL-2 and Mitigation Measure CUL-3 would be implemented during project construction in case of unanticipated discovery of cultural

resources and/or human remains. Mitigation Measure CUL-2 would also require archaeological monitoring by a qualified archaeologist and Native American monitor due to the presence of a Native American archaeological resource north of Fire Station 22. Mitigation Measure CUL-1 would require cultural resource sensitivity training prior to the start of construction. As a result, the proposed project would not eliminate an important example of major periods of California history or prehistory and the impact would be less than significant with mitigation.

B) Does the project have impacts that are individually limited, but cumulative considerable?

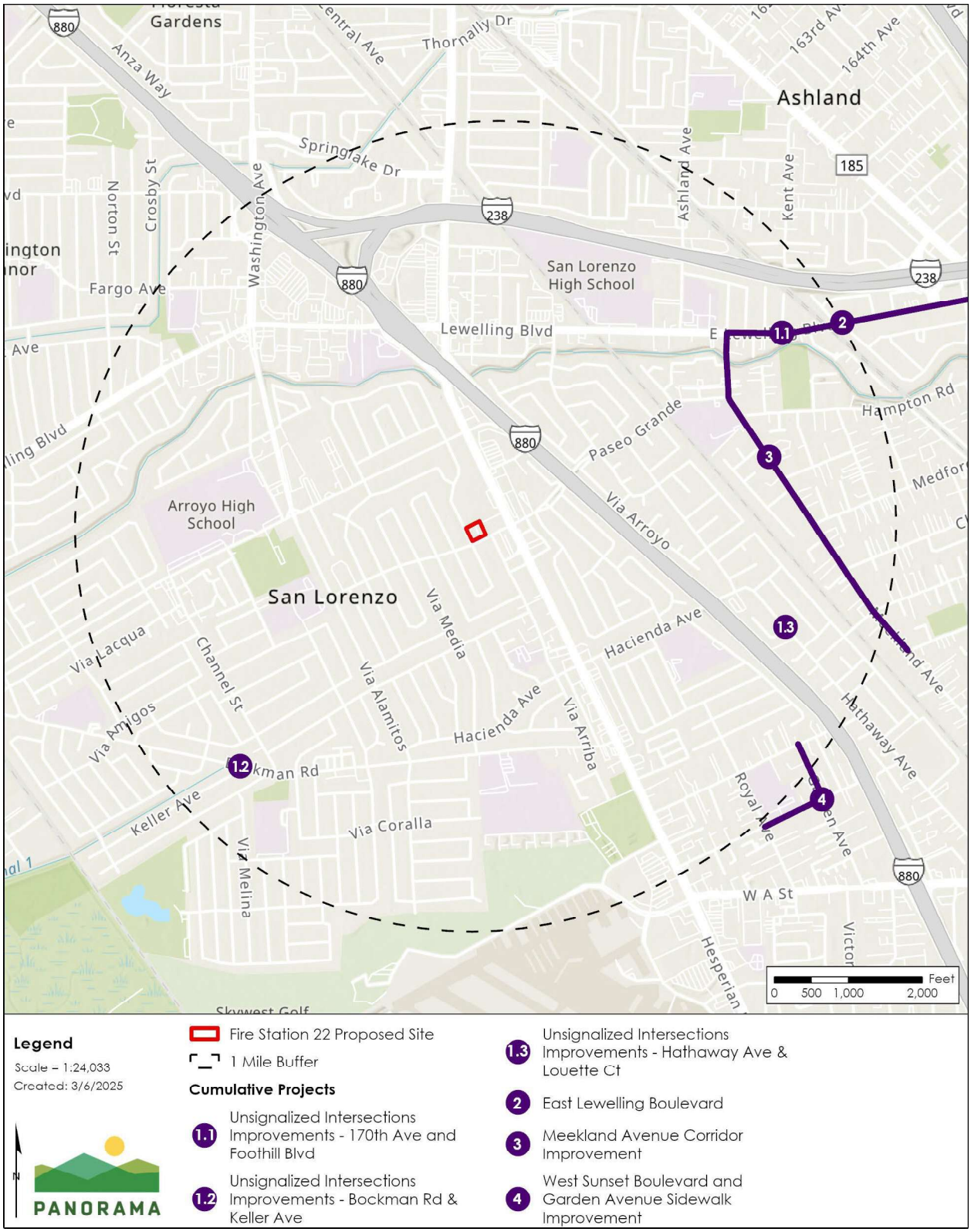
The geographic scope for the analysis of cumulative impacts is within 1 mile or less of the fire station. Ten cumulative projects occur within the vicinity of the fire stations, as shown in Table 3.2-13, below, and Figure 3.2-1. Table 3.2-13 describes each cumulative project within 1-mile of the fire stations.

Table 3.2-13 Cumulative Projects

Number	Cumulative project	Description	Schedule
1	Unsignalized Intersections Improvements	The project installs new and/or replace existing intersection warnings, add pedestrian crossings, and upgrade curb ramps at 11 non-signalized intersections in unincorporated Alameda County.	Under construction
2	East Lewelling Boulevard	The project will implement multimodal transportation improvements with safety features including wider sidewalks, Class IV bike lanes, improved railroad crossings, crosswalks, and bulb-outs along East Lewelling Boulevard from Meekland Avenue to Langton Way.	Design phase
3	Meekland Avenue Corridor Improvement	The project constructs sidewalks and bike lanes along Meekland Avenue. The project would also replace the existing bridge over San Lorenzo Creek.	Under construction
4	West Sunset Boulevard and Garden Avenue Sidewalk Improvement	The project will construct new sidewalks, pedestrian ramps, and crosswalks along West Sunset Boulevard and Garden Avenue	Design phase

Source: (Alameda County Public Works Agency, n.d.; Alameda County Community Development Agency, n.d.)

Figure 3.2-1 Fire Station 22 Cumulative Projects



Source: (Alameda County Public Works Agency, n.d.; Alameda County Community Development Agency, n.d.)

Aesthetics
As discussed in Section 3.2.1: Aesthetics, the proposed fire station is located in developed areas of San Lorenzo and would not be visible from any scenic vista or state scenic highway and, therefore, no cumulative impact on a scenic vista or scenic highway would occur.

The proposed fire station would have light mounted on the building exterior, footpath lighting, and ground-mounted lighting around the flagpole. The proposed fire station and cumulative projects would be required to comply with the Alameda County Dark Skies Ordinance to ensure light pollution from the cumulative projects and proposed project would be less than significant. Therefore, the proposed project's impact as a source of light or glare would not be cumulatively considerable.

Agriculture and Forestry
The proposed project would have no impact on agricultural and forestry resources and, therefore, would have no potential to contribute to cumulative impacts on agriculture and forestry resources.

Air Quality
The SFBAAB is currently designated as a non-attainment area for federal and state ozone standards, the State PM_{10} standard, and the Federal and State $PM_{2.5}$ standards. Past and present projects in the SFBAAB have resulted in the non-attainment statuses. As discussed in Section 3.2.3: Air Quality, past, present, and future development projects contribute to the SFBAAB's adverse air quality impacts on a cumulative basis, and no individual project is sufficient in size to result in nonattainment of ambient air quality standards. If a project's emissions do not exceed the numerical thresholds in the SFBAAB, the project would not considerably contribute to the cumulatively significant air quality impact.

Construction and operation of the proposed project would result in minor criteria pollutant emissions and would not generate emissions in excess of the SFBAAB's significance thresholds. Equipment would emit criteria air pollutants below the thresholds of significance. Therefore, the proposed project's contribution to a significant cumulative impact would not be cumulatively considerable.

Vehicles and equipment used during implementation of the cumulative projects would generate localized diesel and fugitive dust emissions near sensitive receptors. Construction of the cumulative projects could only result in cumulative impacts if the project construction overlapped within 1,000 feet to generate increased pollutant levels at individual receptors. Therefore, the proposed project in combination with the cumulative projects would result in a less than significant cumulative impact on sensitive receptors from toxic air contaminants.

Biological Resources
The cumulative projects are located in urbanized areas that do not contain special status plant or wildlife species or sensitive habitats such as riparian areas or wetlands. As discussed in Section 3.2.4: Biological Resources, Fire Stations 22 is a developed site that does not contain suitable habitat for special-status plants or wildlife.

The Fire Station 22 site contains trees that could be used by nesting birds. Nesting birds may occur within the cumulative project areas and would likely be acclimatized to urbanized environments. Cumulative projects would also be subject to the California Fish and Game Code and Migratory Bird Treaty Act regulations. Because cumulative projects would also need to avoid removing any nests of migratory birds, the cumulative impact on migratory birds would be less than significant.

In addition, the proposed project would not conflict with any local policies or ordinances protecting biological resources and, therefore, would not contribute to any such potential cumulative impact.

Cultural and Tribal Cultural Resources

The geographic scope for cumulative cultural and tribal cultural resource impacts encompasses areas within or immediately adjacent the proposed project sites or areas within a Historic District. The cumulative projects within the vicinity of the San Lorenzo Village Historic District involve sidewalk, intersection, and roadway improvements and would not alter any buildings within the district. Additionally, the Fire Station 22 site does not contain any contributing features to the San Lorenzo Village Historic District. While built historic resources, archaeological resources, and human remains are often site-specific, two projects that are adjacent each other can impact the same built historic resource or potential archaeological resource, particularly in regard to Native American archaeological resources, when two adjacent project areas are both modeled as having high or very high Native American archaeological sensitivity. No cumulative projects are adjacent to Fire Station 22, Therefore, the proposed fire stations in combination with the cumulative projects would not combine to result in a cumulatively significant impact. The cumulative impact would be less than significant.

Energy

The geographic scope for potential cumulative impacts on energy resources would consist of the project vicinity as well as the broader region. Cumulative development would increase demand for energy resources. New development would be required to comply with the California Building Energy Efficiency Standards, and CALGreen would require increasingly more efficient buildings that reduce energy consumption in new development. Therefore, a significant cumulative impact relative to energy resources or conflicts with state or local plans for renewable energy or energy efficiency would not occur.

Greenhouse Gas Emissions

GHG impacts are cumulative in nature because one project by itself cannot significantly contribute to or cause significant environmental effects. Many past, present, and reasonably foreseeable development projects worldwide have or will contribute to the cumulative conditions for GHG emissions. The proposed fire station would contribute to GHG emissions during construction and operations. While the fire station would result in a minor increase in GHG emissions, the proposed project would comply with BAAQMD's recommended design elements to reduce GHG emissions. Therefore, the proposed project's contribution would not be cumulatively considerable. The impact would be less than significant.

Geology and Soils

The geographic scope for impacts related to geology, soils, and paleontological resources is limited to the fire station sites and immediately adjacent properties. None of the cumulative projects are close enough to the Fire Station 22 project sites to result in a cumulatively considerable impact. Therefore, no cumulative impacts related to geology and soils would occur.

Hazards and Hazardous Materials

Construction, operation, and/or implementation of cumulative projects and implementation of the proposed project would use equipment and vehicles that could leak hazardous materials, including gasoline and diesel fuel, engine oil, coolant, lubricants, and grease. Hazardous materials, particularly fuel, may be transported to and from each site, which would increase the risk of accident and release. The hazard to the public from fuel leaks from the cumulative projects would be highly localized geographically and temporally due to the small amount of hazardous materials that vehicles and equipment typical would use and the quick response time to clean up any spill. The cumulative projects would be required to comply with CalOSHA, DOT, and Caltrans regulations regarding the transportation of hazardous materials. The proposed project in combination with the cumulative projects would therefore not combine to result in a cumulatively significant impact due to accidental releases of hazardous materials or herbicide.

Hydrology

The geographic scope for potential cumulative impacts on hydrology and water quality would encompass the project area and water bodies that could be affected by the identified cumulative projects along with the proposed project. Discharges from construction and operations activities associated with all of the cumulative projects would drain into sewer systems that ultimately drain into the San Francisco Bay. Similar to the proposed project, the existing cumulative project development sites are highly urbanized, developed, and largely covered by existing impervious surfaces. Therefore, development of the cumulative projects would not substantially increase the amount of impervious surface above current existing impervious conditions. Cumulative development that increases impervious surfaces would result in an increase in stormwater discharge. The identified cumulative projects within Alameda County's jurisdiction would be subject to the Clean Water Act and the County's NPDES Permit. The cumulative projects would also be required to comply with the Alameda County Clean Water Program and Grading Ordinance as well as the Alameda County Watercourse Protection Ordinance. Compliance with regulatory requirements and permits would minimize potential impacts on water quality. Therefore, the identified cumulative projects would not combine with the proposed project to result in a significant cumulative impact related to hydrology and water quality.

Land Use and Planning

The cumulative context for land use effects typically is localized within the immediate project vicinity or at the neighborhood level. The nearby cumulative development projects would not physically divide an established community by constructing a physical barrier to neighborhood access or removing a means of access. The nearby cumulative development projects are

required to comply with applicable plans, policies, and regulations, including those adopted for avoiding or mitigating an environmental impact, such as the 2017 Clean Air Plan, Alameda County General Plan, and Alameda County Green Building Ordinance. Therefore, the proposed project, in combination with cumulative development projects would not result in a significant cumulative impact related to the physical division of an established community or a conflict with a land use plan, policy, or regulation adopted for avoiding or mitigating an environmental impact. No cumulative impact to land use would occur.

Mineral Resources
The cumulative projects are within or adjacent areas that are urbanized and developed with land uses that are not compatible with mineral resource extraction activities. As discussed in Section 3.2.12: Mineral Resources, there are no known mineral resources within the Fire Station 22 project site and, therefore, no cumulative impact would occur.

Noise
The geographic scope for cumulative noise impacts for on-site sources is within approximately 1,000 feet of the project site. No cumulative projects are close enough to the Fire Station 22 site, that could compound with noise generated by equipment and vehicles used during construction activities that would result in a cumulatively significant impact with respect to construction noise and vibration. Therefore, no potential cumulative noise impact would occur.

Population and Housing
The geographic scope for the population and housing cumulative impact analysis encompasses the San Lorenzo communities. There are no cumulative projects that contain housing components within 1 mile of Fire Station 22 site.

As discussed in Section 3.2.14: Population and Housing, the staff at the existing fire station would be transferred to the proposed fire station. The proposed project would not displace any housing or result in the need for replacement housing. In addition, the proposed project would not develop new housing that could directly induce population growth. Therefore, the proposed project would not contribute to a cumulative impact related to direct population growth.

Public Services
The cumulative context for public services impacts includes the areas served by police districts, fire stations, schools, and parks within the San Lorenzo communities in unincorporated Alameda County. The proposed projects would have no impact on public services and, therefore, would have no potential to contribute to cumulative impacts on public services.

Recreation
The geographic scope of potential recreational impacts includes the project site and the recreational resources in the San Lorenzo communities in unincorporated Alameda County. The proposed projects would have no impact on recreational resources and, therefore, would have no potential to contribute to cumulative impacts on recreational resources.

Transportation

The cumulative projects would generate vehicle trips to and from project sites on similar roadways as the fire station project. Most of the cumulative projects involve sidewalk or roadway improvements that would require lane or road closures. The cumulative projects may have similar implementation schedules as the proposed project. Therefore, overlapping schedules would increase the potential for conflict between project vehicles, including large trucks and normal traffic along roadways, particularly if lanes or roads are closed. The cumulative projects would be required to comply with the California MUTCD, which would reduce the potential hazards of lane and road closures. With adherence to applicable regulations, impacts would not be cumulatively significant.

Utilities and Service Systems

As discussed in Section 3.2.19: Utilities and Service Systems, the proposed project would replace the existing fire station and would be served by the same existing utilities and service systems. The proposed projects would have no impact on water supplies and wastewater treatment capacity and, therefore, would have no potential to contribute to cumulative impacts on water supply and wastewater resources. Most of the cumulative projects involve roadway and sidewalk improvements that would not require any new or expanded utilities. The identified cumulative projects would be constructed and operated in developed urban areas with existing electric power, natural gas, and telecommunication infrastructure. As a result, there would be no substantial increase in the demand for electricity, natural gas, or telecommunications infrastructure from the identified cumulative projects.

The identified cumulative projects would generate construction and household waste, which would be disposed of at off-site disposal facilities. All projects would be required to comply with CALGreen Building Code requirements and the Alameda County Green Building Ordinance. Given that the identified cumulative projects would comply with these ordinances and, given that adequate landfill capacity exists to serve the area in which these projects would be located, no significant cumulative impact relative to solid waste disposal would result.

C) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts on humans are associated with air quality, geology and soils, hydrology and water quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the proposed project could result in adverse noise impacts on humans, which would be reduced to a less-than-significant level with implementation of Mitigation Measures NOI-1 and NOI-2 Additionally, the proposed project could result in air quality impacts on humans from fugitive dust emissions. Impacts to humans from fugitive dust emissions would be reduced to a less-than-significant level with implementation of Mitigation Measure AQ-1. Therefore, the impact of the proposed project on human beings would be less than significant with mitigation.

4 List of Preparers

This section lists those individuals who either prepared or participated in the preparation of this IS/MND.

Panorama Environmental, Inc. prepared this IS/MND under contract to the Alameda County Fire Department. Persons involved in data gathering analysis, project management, and quality control are listed below.

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- Whitney Broeking, Project Manager
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APPENDIX A

Air Quality and Greenhouse Gas Technical Report

MEMORANDUM

Date: 19 March 2025 **Job No.:** 21215-05

To: Whitney Broeking, Panorama Environmental

From: Yilin Tian, Environmental Engineer, Baseline Environmental Consulting

Subject: **Air Quality and Greenhouse Gas Analysis for Alameda County Fire Station 22**

Baseline Environmental Consulting (Baseline) has prepared this technical memorandum to evaluate potential impacts related to air quality and greenhouse gas (GHG) emissions to support CEQA review of the proposed Alameda County Fire Station 22 Project (project) in the town of San Lorenzo in unincorporated Alameda County, California. The project would construct a new fire station on Paseo Grande, approximately 300 feet from the existing fire station.

1 PROJECT DESCRIPTION

The project would be constructed on two parcels, totaling 0.93-acres (Assessor's Parcel Number 412-31-93), on Paseo Grande between Paseo Largavista and Hesperian Boulevard (project site) about 300 feet west of the existing fire station, as shown in **Figure 1**. The project site is paved and contains one of the former commercial building foundations. The existing fire station consists of a 3,967 square-foot building and parking lot. The building contains shops, offices, a kitchen and dining areas, dorm rooms, lockers, exercise rooms, and four apparatus bays. Building features include a 75-kilowatt generator and an air compressor. The fire station has three employees.

The project would construct a 7,688-square-foot, 25-foot-tall, 1-story fire station on the project site. The new fire station would have a lobby, personnel offices, workstations, two apparatus bays, kitchen and dining spaces, crew dormitories and lockers, a training room, and storage rooms. The proposed facility would include additional building space and parking to accommodate the Alameda County Fire Department's (ACFD) current and future operational needs. The existing air compressor would be replaced in-kind.

The new fueling tank would feature a 1,000-gallon aboveground tank, with pumps that would dispense diesel and gas to ACFD fleet vehicles and equipment. The fueling tank would be within an enclosure. A new 200-kilowatt emergency generator would replace the 75-kilowatt emergency generator with a belly tank placed on a concrete pad east of the new building. The emergency generator would be within an enclosure and would be tested weekly.

The project would construct nine parking spaces. In accordance with the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle Charging Stations at Alameda County Facilities, two parking spaces will be equipped with level-2 electric vehicle charging stations.

Project construction is anticipated to begin in 2026 and last approximately 18 months. Upon completion of construction, the three employees at the existing fire station and the existing fire station operations and maintenance would be transferred to the new fire station. The existing fire station would be turned over to Alameda County for its use.

2 AIR QUALITY ANALYSIS

2.1 Environmental Setting

The project site is located within the San Francisco Bay Area Air Basin (SFBAAB). The San Francisco Bay Area (Bay Area) has a Mediterranean climate characterized by wet winters and dry summers. During the summer, a high-pressure cell centered over the northeastern Pacific Ocean results in stable meteorological conditions and a steady northwesterly wind flow that generally keeps storms from affecting the California coast. During the winter, the Pacific high-pressure cell weakens, resulting in increased precipitation and the occurrence of storms. The highest air pollutant concentrations in the Bay Area generally occur during inversions, when a surface layer of cooler air becomes trapped beneath a layer of warmer air. An inversion reduces the amount of vertical mixing and dilution of air pollutants in the cooler air near the surface.

Sensitive receptors are areas where individuals are more susceptible to the adverse effects of poor air quality. Sensitive receptors include, but are not limited to, hospitals, schools, daycare facilities, elderly housing, and convalescent facilities. Residential areas are also considered sensitive receptors because people are often at home for extended periods, thereby increasing the duration of exposure to potential air contaminants. The sensitive receptors in the vicinity of the project site include the following:

1) Residences to the northwest (as close as 30 feet), to the west (as close as 55 feet), to the south (as close as 170 feet), to the northeast (as close as 670 feet), and to the east (as close as 320 feet);
2) The Arbor at Hesperian to the northeast (elderly housing, about 480 feet);
3) The Franskin Day Care to the south (about 685 feet);
4) Lollipop Lane Preschool to the east (about 630 feet); and
5) The Marseille Delgado Crayolas Daycare to the northwest (about 940 feet).

Figure 1. Project Location



2.2 Regulatory Setting

2.2.1 Federal and State Regulations

The federal EPA is responsible for implementing the programs established under the Federal Clean Air Act, such as establishing and reviewing the National Ambient Air Quality Standards (NAAQS) and judging the adequacy of State Implementation Plans to attain the NAAQS. A State Implementation Plan must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. If a state fails to enforce its implementation of approved regulations, or if the EPA determines that a State Implementation Plan is inadequate, the EPA is required to prepare and enforce a Federal Implementation Plan to promulgate comprehensive control measures for a given State Implementation Plan.

The California Air Resources Board (CARB) is responsible for establishing and reviewing the California Ambient Air Quality Standards (CAAQS), developing and managing the California State Implementation Plans, identifying TACs, and overseeing the activities of regional air quality management districts. In California, mobile emissions sources (e.g., construction equipment, trucks, and automobiles) are regulated by CARB and stationary emissions sources (e.g., industrial facilities) are regulated by the regional air quality management districts. In accordance with the Federal Clean Air Act and California Clean Air Act, areas in California are classified as either in attainment, maintenance (i.e., former nonattainment), or nonattainment of the NAAQS and CAAQS for each criteria air pollutant. To assess the regional attainment status, the Bay Area Air Quality Management District (BAAQMD) collects ambient air quality data from over 30 monitoring sites within the SFBAAB. Based on current monitoring data, the SFBAAB is designated as a nonattainment area for ozone, PM_{10} (CAAQS only), and $PM_{2.5}$, and is designated an attainment or unclassified area for all other pollutants (see **Table 1**).

Table 1. Air Quality Standards and Attainment Status

Pollutant	Averaging Time	CAAQS		NAAQS	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	8 Hours	0.070 ppm	N	0.070 ppm	N (marginal)
	1-Hour	0.09 ppm	N	Revoked in 2005	---
Carbon Monoxide	8 Hours	9.0 ppm	A	9 ppm	A
	1-Hour	20 ppm	A	35 ppm	A
Nitrogen Dioxide	1-Hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	---	0.053 ppm	A
Sulfur Dioxide	24 Hours	0.04 ppm	A	0.14 ppm	A
	1-Hour	0.25 ppm	A	0.075 ppm	A
	Annual	---	---	0.030 ppm	A
Coarse Particulate Matter (PM10)	Annual	20 µg/m^3	N	---	---
	24 Hours	50 µg/m^3	N	150 µg/m^3	U
Fine Particulate Matter (PM2.5)	Annual	12 µg/m^3	N	12 µg/m^3	U/A
	24 Hours	---	---	35 µg/m^3	N (moderate)
Lead	30 Days	1.5 µg/m^3	A	---	---
	Calendar Quarter	---	---	1.5 µg/m^3	A
	Rolling 3 Months	---	---	0.15 µg/m^3	A

Notes: CAAQS = California Ambient Air Quality Standards; NAAQS National Ambient Air Quality Standards;
A = Attainment; N = Nonattainment; U = Unclassified; "---" = not applicable; ppm = parts per million;
µg/m^3 = micrograms per cubic meter; PST = Pacific Standard Time.
Source: Bay Area Air Quality Management District (BAAQMD), 2017. Air Quality Standards and Attainment Status. Available at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status.

2.2.2 Regional Regulations

The project site is located in the SFBAAB, which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD adopts rules and regulations that apply for development projects. Specific rules applicable to project construction and operation include, but are not limited to, the following rules:

- **Regulation 2, Rule 2, New Source Review**. This rule applies to new or modified sources and contains requirements for best available control technology (BACT) and emission

offsets. Rule 2 implements federal New Source Review and Prevention of Significant Deterioration requirements.

- **Regulation 2, Rule 5 (New Source Review of TACs):** This regulation outlines guidance for evaluating TAC emissions and their potential health risks. The Project Risk Requirement (2-5-302.1) states that the Air Pollution Control Officer shall deny an Authority to Construct or Permit to Operate for any new or modified source of TACs if the project cancer risk exceeds 10.0 in one million.
- **Regulation 7, Odorous Substances**. Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds.
- **Regulation 9, Rule 8 (Stationary Internal-Combustion Engines):** This regulation limits emissions of NO_X and CO from stationary internal-combustion engines of more than 50 hp.

The BAAQMD has adopted thresholds of significance to assist lead agencies in the evaluation and mitigation of air quality impacts under CEQA.[1] The BAAQMD's thresholds established levels at which emissions of ozone precursors (i.e., reactive organic gases [ROGs] and nitrogen oxides [NO_x]), coarse particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide, toxic air contaminants (TACs), and odors could cause significant air quality impacts. The BAAQMD's thresholds of significance that are used in this analysis are summarized in **Table 2** below.

[1] Bay Area Air Quality Management District (BAAQMD), 2023. CEQA Air Quality Guidelines, April.

Table 2. BAAQMD'S Thresholds of Significance

Impact Analysis	Pollutant	Threshold of Significance
Regional Air Quality (Construction)	ROG	54 pounds/day (average daily emission)
	NO_x	54 pounds/day (average daily emission)
	Exhaust PM_{10}	82 pounds/day (average daily emission)
	Exhaust $PM_{2.5}$	54 pounds/day (average daily emission)
	Fugitive dust (PM_{10} and $PM_{2.5}$)	Best management practices (BMPs)
Regional Air Quality (Operation)	ROG	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	NO_x	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
	Exhaust PM_{10}	82 pounds/day (average daily emission) 15 tons/year (maximum annual emission)
	Exhaust $PM_{2.5}$	54 pounds/day (average daily emission) 10 tons/year (maximum annual emission)
Local Community Risks and Hazards (Operation and/or Construction)	$PM_{2.5}$ (project)	0.3 µg/m^3 (annual average)
	TACs (project)	Cancer risk increase > 10 in one million Chronic hazard index > 1.0
	$PM_{2.5}$ (cumulative)	0.8 µg/m^3 (annual average)
	TACs (cumulative)	Cancer risk > 100 in one million Chronic hazard index > 10.0

Notes: µg/m^3 = micrograms per cubic meter
Source: BAAQMD, 2023

BAAQMD has also developed screening criteria for criteria air pollutants. These screening criteria are not thresholds of significance. Instead, they provide lead agencies with a conservative indication of whether implementing a proposed project could result in potentially significant criteria air pollutant impacts. If all screening criteria for criteria air pollutants are met by a proposed project, then the lead agency would not need to perform a detailed assessment of the project's criteria air pollutant emissions.

According to the BAAQMD 2022 CEQA Guidelines,[2] if all of the following screening criteria are met, then construction of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

1. The project size is at or below the applicable screening level size of 452,000 square feet for commercial and industrial land uses.

[2] Ibid.

2. All best management practices are included in the project design and implemented during construction.
3. Construction-related activities would not overlap with operational activities.
4. Construction-related activities would not include:
    a. demolition,
    b. simultaneous occurrence of two or more construction phases (e.g., paving and building construction would occur simultaneously),
    c. extensive site preparation (e.g., grading, cut and fill, or earth movement),
    d. extensive material transport (e.g., soil import and export requiring a considerable amount of haul truck activity), or
    e. stationary sources (e.g., backup generators) subject to Air District rules and regulations.

If all of the following screening criteria are met, the operation of the proposed project would result in a less-than-significant impact related to criteria air pollutants and precursors:

1. The project size is at or below the most conservative operational screening level size of 89,000 square feet for commercial and industrial land uses.

2. Operational activities would not include stationary engines (e.g., backup generators) and industrial sources subject to Air District rules and regulations.

3. Operational activities would not overlap with construction-related activities.

The BAAQMD's threshold of significance for local carbon monoxide concentrations is equivalent to the 1- and 8-hour California ambient air quality standards of 20.0 and 9.0 parts per million, respectively, because these represent levels that are protective of public health. The BAAQMD has developed conservative screening criteria that can be used to determine if a project would generate traffic congestion at intersections that could potentially cause or contribute to local carbon monoxide levels above the California ambient air quality standards. According to the BAAQMD, a project would result in a less-than-significant impact related to localized CO concentrations if all of the following screening criteria are met:

- The project is consistent with an applicable Congestion Management Program (CMP) established by the County Congestion Management Agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.

- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

2.3 Significance Criteria

According to the CEQA Guidelines Appendix G, implementation of the proposed project would result in a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;

2. 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;

3. Expose sensitive receptors to substantial pollutant concentrations; or

4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

2.4 Impact Analysis

2.4.1 Consistency with Air Quality Plan

The BAAQMD's 2017 Clean Air Plan is the applicable air quality plan for projects located in the SFBAAB.[3] Consistency may be determined by evaluating whether the project supports the primary goals of the 2017 Clean Air Plan, including applicable control measures contained within the 2017 Clean Air Plan, and would not conflict with or obstruct implementation of any 2017 Clean Air Plan control measures.

The primary goals of the 2017 Clean Air Plan are the attainment of ambient air quality standards and reduction of population exposure to air pollutants for the protection of public health in the Bay Area. Because the project would not result in any significant and unavoidable air quality impacts related to emissions, ambient concentrations, or public exposures (see discussions below), the project would support the primary goals of the 2017 Clean Air Plan.

The control measures from the 2017 Clean Air Plan, which aim to reduce air pollution and GHGs from stationary, area, and mobile sources, are organized into nine categories: stationary sources, transportation, buildings, energy, agriculture, natural and working lands, waste, water,

[3] Bay Area Air Quality Management District (BAAQMD), 2017. 2017 Clean Air Plan: Spare the Air, Cool the Climate, April

and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases). As described in **Table 3**, the project would be consistent with applicable control measures from the 2017 Clean Air Plan. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

Table 3: Project Consistency with BAAQMD's 2017 Clean Air Plan

Control Measures	Project Consistency
Stationary Source	**Consistent**. The stationary source measures, which are designed to reduce emissions from stationary sources, are incorporated into rules adopted by the BAAQMD and then enforced by the BAAQMD's Permit and Inspection programs. Operation of an emergency backup generator and an aboveground fuel tank would be subject to the BAAQMD's permitting requirements for stationary sources. Therefore, the project would be consistent with the stationary source control measures of the 2017 Clean Air Plan.
Transportation	**Consistent**. The transportation control measures are designed to reduce vehicle trips, use, miles traveled, idling, or traffic congestion for the purpose of reducing vehicle emissions. The project would not change the number of employees, the service area, or the number vehicle trips generated relative to existing conditions. Therefore, the project would be consistent with the transportation control measures in the 2017 Clean Air Plan.
Energy	**Not applicable**. The energy control measures are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area, as well as decreasing the carbon intensity of the electricity used by switching to less GHG-intensive fuel sources for electricity generation. Since these measures primarily apply to electrical utility providers, the energy control measures of the 2017 Clean Air Plan are not applicable to the project.
Buildings	**Consistent.** The BAAQMD has authority to regulate emissions from certain sources in buildings such as boilers and water heaters but has limited authority to regulate buildings themselves. Therefore, the building control measures focus on working with local governments that have authority over local building codes to facilitate adoption of best practices and policies to control GHG emissions. The project will comply with the current Title 24 Building Energy Efficiency Standards which include performance standards for energy-efficient appliances and heating and cooling systems. Therefore, the project would be consistent with the buildings control measures of the 2017 Clean Air Plan.
Agriculture	**Not applicable**. The agriculture control measures are designed to primarily reduce emissions of methane. Since the project does not include any agricultural activities, the agriculture control measures of the 2017 Clean Air Plan are not applicable to the project.

Control Measures	Project Consistency
Natural and Working Lands	**Not applicable**. The control measures for the natural and working lands sector focus on increasing carbon sequestration on rangelands and wetlands, as well as encouraging local governments to adopt ordinances that promote urban-tree plantings. Since the project does not include the disturbance of any rangelands or wetlands, the natural and working lands control measures of the 2017 Clean Air Plan are not applicable to the project.
Waste Management	**Consistent.** The waste management measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The project would comply with local requirements for waste management (e.g., recycling). Therefore, the project would be consistent with the waste management control measures of the 2017 Clean Air Plan.
Water	**Not applicable**. The water control measures to reduce emissions from the water sector will reduce emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Since these measures primarily apply to publicly owned treatment works (sewage treatment plant that is owned, and usually operated, by a government agency), the water control measures of the 2017 Clean Air Plan are not applicable to the project.
Super GHGs	**Not applicable**. The super-GHG control measures are designed to facilitate the adoption of best GHG control practices and policies through the BAAQMD and local government agencies. Since these measures do not apply to individual developments, the super-GHG control measures of the 2017 Clean Air Plan are not applicable to the project.

Source: Bay Area Air Quality Management District (BAAQMD), 2017. 2017 Clean Air Plan: Spare the Air, Cool the Climate, April.

2.4.2 Criteria Air Pollutant Emissions

Construction and operation of the project would generate criteria pollutant emissions that could potentially impact regional air quality. Because the project would include the demolition of the existing surface pavement and utility poles to facilitate construction of the new fire station, the project would not meet the BAAQMD screening criterion of no demolition during construction. Because the project would replace the existing 75-kilowatt emergency diesel generator with a 200-kilowatt emergency diesel generator, which is bigger in size, the project would also not meet the BAAQMD screening criterion of no stationary engines during operation. Therefore, project construction and operational criteria air pollutant emissions were further evaluated below.

The BAAQMD currently recommends using the most recent version of the California Emissions Estimator Model (CalEEMod version 2022.1) to estimate construction and operational emissions of criteria air pollutants and precursors for a proposed project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. The primary input data used to estimate emissions associated with construction and operation of the project are summarized in **Table 4**. A copy of the CalEEMod report for the project, which summarizes the input parameters, assumptions, and findings, is included as **Attachment A**.

Table 4. CalEEMod Land Use Input Parameters for the Project

Land Use Type	CalEEMod Land Use Type	Unit Amount	Units
Fire Station	Government Office Building	7,700	Square Feet
Landscape Area	Landscape Area	5,300	Square Feet
Parking Lot	Parking Lot	9	Spaces

Notes: Default CalEEMod data was used for all other parameters not described. The Landscape Area was conservatively estimated based on the planting area included in the Site Reduction (Redesign #2) Layout C1.2.

Criteria Air Pollutants from Construction

Project construction activities would generate criteria air pollutant emissions that could potentially adversely affect regional air quality. Construction activities would include demolition, site preparation, grading, building construction, and paving. The impact analysis for criteria air pollutant emissions during construction includes ROG, NO_x, PM_{10}, and $PM_{2.5}$ from the exhaust of off-road construction equipment and on-road vehicles related to worker vehicles, vendor trucks, and haul trucks. In addition, fugitive dust emissions of PM_{10} and $PM_{2.5}$ would be generated by soil disturbance and demolition activities and fugitive ROG emissions would result from paving. Emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$ during project construction were estimated using the CalEEMod input parameters summarized in **Table 4** and **Table 5**.

Table 5: CalEEMod Construction Assumptions

Input Category	Construction Assumptions and Changes to Default Data
Construction Phase	Project construction would begin as early as August 2026 and last for 18 months. The air quality analysis was conducted based on the assumption that construction would begin as early as 2025 and last for 18 months. Emissions of criteria air pollutants from project construction occurring in later years would be lower due to the increasingly stringent emissions standards and fleet turnover. Therefore, the current air quality analysis is considered conservative.
Material Movement	Project construction would require excavation to a depth of approximately three feet below ground surface. According to the Geotechnical Evaluation and Geologic Hazards Assessment for the project,[4] the on-site soil is suitable for reuse as general fill. It was assumed that no soil import would be needed. However, it was conservatively assumed that all excavated materials would be off-hauled from the project site. The areas for the new fire station, parking lot, generator pad, and fuel tank pad were assumed to be 7,700 square feet, 7,670 square feet, 300 square feet, and 100 square feet, respectively. The soil export volume was estimated to be approximately 1,800 cubic yards.
Demolition	Demolition of the existing pavement and utility poles would generate 2,700 cubic feet (196 tons[1]) of demolition debris.
Trips and VMT	An average of 20 construction workers are expected to be on-site daily (40 one-way worker commute trips per day) during project construction.

Notes: Demolition debris volume was provided by the project sponsor. Default CalEEMod data was used for all other parameters not described.
[1] Pavement demolition: (volume of asphalt pavement) (Density asphalt) = (2,700 ft^3)(0.0725 tons/ft^3) = 196 tons.

Project construction would last approximately 18 months. To analyze daily emission rates, the total emissions estimated during the construction were averaged over the total working days (390 days) and compared to BAAQMD's thresholds of significance. As shown in **Table 6**, the project's estimated emissions for ROG, NO_x, and exhaust PM_{10} and $PM_{2.5}$ without mitigation are below the applicable thresholds.

Table 6: Criteria Air Pollutant Emissions during Construction (Pounds per Day)

Emissions Scenario	ROG	NO_x	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Construction Emissions	1.0	5.8	0.2	0.2

[4] DLR Group Ross Drulis Cusenbery Architecture, 2024. Alameda County Fire Department Station 22 Geotechnical Evaluation and Geologic Hazards Assessment. November 20.

Thresholds of Significance	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: See Attachment A.

The BAAQMD does not have a quantitative threshold of significance for fugitive dust PM_{10} and $PM_{2.5}$ emissions; however, the BAAQMD considers implementation of the following best management practices to control dust during construction sufficient to reduce potential impacts to a less-than-significant level.

Best Management Practices for Construction-Related Fugitive Dust Emissions

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.

8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.

9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

With implementation of the BAAQMD's Best Management Practices for Construction-Related Fugitive Dust Emissions as either a condition of approval or mitigation measure, the project would comply with the BAAQMD's performance standards for reducing fugitive dust emissions.

Criteria Air Pollutants from Operation

Project operation would generate criteria air pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern during project operation would be ROG, NO_x, and exhaust PM_{10} and $PM_{2.5}$ from mobile sources, energy use, area sources (e.g., consumer products, architectural coatings, and landscape equipment) and stationary sources. The BAAQMD currently recommends using the most recent version of the California Emissions Estimator Model (CalEEMod version 2022.1) to estimate operational emissions of criteria air pollutants and precursors for a proposed project. CalEEMod uses widely accepted models for emission estimates combined with appropriate default data for a variety of land use projects that can be used if site-specific information is not available. Project-specific information and assumptions used to calculate operation emissions are provided in **Table 4** and **Table 7**. A copy of the CalEEMod report for the project, which summarizes the input parameters, assumptions, and findings, is included as **Attachment A**.

Table 7: CalEEMod Operation Assumptions

Input Category	Construction Assumptions and Changes to Default Data
Mobile Sources - Vehicle Data	The project would not change the number of employees and the service area of the fire station, or the number of emergency calls the employees responded to per month. Therefore, the vehicle trips generated by the project would be substantially the same as the existing condition. The net project-generated vehicle trip would be zero.
Emergency Generators	Based on the information provided by the ACFD, a 200-kilowatt emergency diesel generator would be required for the project. It was assumed that the generator would be used for non-emergency operation up to 50 hours per year for routine testing and maintenance.

Notes: Default CalEEMod data was used for all other parameters not described.

The estimated maximum annual emissions and average daily emissions during the operational phase of the proposed project are compared to the BAAQMD's thresholds of significance in **Table 8**. The estimated emissions for ROG, NOx, and exhaust PM_{10} and $PM_{2.5}$ during operation were below the thresholds of significance. Therefore, the increase in ROG, NOx, and exhaust PM_{10} and $PM_{2.5}$ concentrations from project operation would not result in a cumulatively considerable net increase in criteria air pollutants for which the region is in nonattainment.

Table 8. Estimated Operation Emissions

Emissions Scenario	Maximum Annual Emissions (Tons)				Average Daily Emissions (Pounds)			
	ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$
Area Sources	0.04	<0.01	<0.01	<0.01	0.22	<0.01	<0.01	<0.01
Energy Use	<0.01	0.01	<0.01	<0.01	<0.01	0.05	<0.01	<0.01
Generator	0.01	0.03	<0.01	<0.01	0.06	0.17	0.01	0.01
Total	0.05	0.04	<0.01	<0.01	0.28	0.22	0.01	0.01
BAAQMD CEQA Thresholds of Significance	10	10	15	10	54	54	82	54
Threshold Exceedance?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Source: See Attachment A

2.4.3 Exposure to Toxic Air Contaminants

Local Health Risks during Construction

Exposure to Diesel Particulate Matter Emissions

Project construction would generate diesel particulate matter (DPM) and $PM_{2.5}$ emissions from the exhaust of off-road diesel construction equipment and fugitive $PM_{2.5}$ emissions from construction activities. The nearest sensitive receptors are residences to the northwest (as close as 30 feet) and to the west (as close as 55 feet) of the project site. The predominant wind direction is to the southeast, away from the nearby sensitive receptors. A more conservative analysis of construction health risks was performed recently for a larger ACFD fire station in Castro Valley (Fire Station 25) with sensitive receptors located in the predominant downwind direction about 50 feet to the east, which found that the estimated excess cancer risk and chronic hazard index for DPM and annual average $PM_{2.5}$ concentration from construction emissions were below the BAAQMD's thresholds of significance.[5] In addition, for Fire Station 25, sensitive receptors located as close as 15 feet to the north of the project site were found to have less excess cancer risk and chronic hazard index for DPM and annual average $PM_{2.5}$ concentration than the sensitive receptors located in the predominant downwind direction. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations during project construction.

[5] Baseline Environmental Consulting, 2023. Air Quality and Greenhouse Gas Analysis for Alameda County Fire Station 25. December 10.

Local Health Risks during Operation

Exposure to Carbon Monoxide Emissions

The source of local carbon monoxide concentrations is often associated with heavy traffic congestion at nearby intersections. The new fire station will be staffed with same number of employees as the existing fire station. The project would comply with (and would not exceed) the BAAQMD's screening criteria for local carbon monoxide concentrations because the project would not result in a substantial net increase in vehicle trips relative to existing conditions. Therefore, the project would not result in a net increase in the potential exposure of existing sensitive receptors to carbon monoxide concentrations from project-generated traffic.

Exposure to Toxic Air Contaminant Emissions

The source of local TAC concentrations is often associated with stationary sources. The project would replace existing 75-kilowatt emergency diesel generator with a 200-kilowatt emergency diesel generator. Because the operation of the emergency diesel generator will be limited to emergency situations and routine testing and maintenance, this replacement is not expected to result in a substantial net in increase in TAC emissions. Furthermore, operation of stationary sources is subject to BAAQMD permitting requirements under Regulation 2, Rule 5 to minimize the potential exposure of nearby sensitive receptors to substantial concentrations of TACs. Therefore, the project would not result in a substantial net increase in the potential exposure of existing sensitive receptors to TAC concentrations from operation of stationary sources on the project site.

2.4.4 Odors and other Emissions

The project would not alter the existing land use condition or introduce new sources of odors or other emissions.

3 GREENHOUSE GAS ANALYSIS

3.1 Environmental Setting

Climate change refers to change in the Earth's weather patterns, including the rise in temperature due to an increase in heat trapping GHGs in the atmosphere. According to the BAAQMD, some of the potential effects of increased GHG emissions and associated climate change may include loss of snowpack (affecting water supply), more frequent extreme weather events, more large forest fires, more drought years, and sea level rise. In addition, climate change may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health.[6]

[6] Bay Area Air Quality Management District (BAAQMD), 2017. Final 2017 Clean Air Plan. April 19.

3.2 Regulatory Setting

3.2.1 State Regulations

California Climate Action Goals

California has established the following long-term climate action goals:

- Assembly Bill (AB) 32: Reduce GHG emissions to 1990 levels by 2020.
- Senate Bill (SB) 32: Reduce GHG emissions to 40 percent below 1990 levels by 2030.
- AB 1279: Achieve carbon neutrality as soon as possible, but no later than 2045 and maintain net negative GHG emissions thereafter; and reduce GHG emissions to 85 percent below 1990 levels by 2045.
- Executive Order S-3-05: Reduce GHG emissions to 80 percent below 1990 levels by 2050.

It should be noted that executive orders are legally binding only on State agencies and have no direct effect on local government or the private sector.

California's Climate Change Scoping Plan

In December 2008, CARB adopted the Climate Change Scoping Plan to identify how the State can achieve its 2020 climate action goal under AB 32. In 2017, CARB updated the Scoping Plan to identify how the State can achieve its 2030 climate action goal under SB 32, and substantially advance toward its 2050 climate action goal under Executive Order S-3-05. The 2017 Scoping Plan includes the regulatory programs, such as the Advanced Clean Cars Program, Low-Carbon Fuel Standard, Renewable Portfolio Standard Program, and energy efficiency standards.[7]

In December 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality, which outlines a roadmap to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045.[8] Building on the 2017 Scoping Plan, the 2022 Scoping Plan evaluates the progress made toward meeting the 2030 GHG reduction target established in SB 32 and identifies a technologically feasible, cost-effective, and equity-focused path to achieve carbon neutrality by 2045. The 2022 Scoping Plan presents an approach for an aggressive reduction of fossil fuels and a rapid transition to renewable energy resources and zero-emission vehicles. The 2022 Scoping Plan identifies actions and outcomes such as rapidly moving to zero-emission transportation; electrifying cars, buses,

[7] California Air Resources Board (CARB), 2017. California's 2017 Climate Change Scoping Plan. November.
[8] California Air Resources Board (CARB), 2022. Scoping Plan for Achieving Carbon Neutrality. November.

trains, and trucks; phasing out the use of fossil gas used for heating homes and buildings; clamping down on chemicals and refrigerants; providing communities with sustainable options for walking, biking, and public transit; building out clean, renewable energy resources (such as solar arrays and wind turbine capacity) to displace fossil-fuel fired electrical generation; and scaling up new options such as renewable hydrogen and biomethane. Appendix D of the 2022 Scoping Plan includes recommendations for local government to take actions that align with the state's climate goals, with a focus on local climate action plans and local authority over new residential and mixed-use development. Appendix D of the 2022 Scoping Plan recommends for local jurisdictions to focus on three priority areas when preparing a climate action plan: transportation electrification, vehicle miles travelled (VMT) reduction, and building decarbonization.

3.2.2 Regional Regulations

BAAQMD CEQA Guidelines

Climate change is not caused by any individual emissions source but by a large number of sources around the world emitting GHGs that collectively create a significant cumulative impact. CEQA requires agencies in California to analyze such impacts by evaluating whether a proposed project would make a "cumulatively considerable" contribution to the significant cumulative impact on climate change. The BAAQMD's CEQA Air Quality Guidelines[9] include recommended thresholds of significance for GHG emissions from typical land use projects that are intended to assist public agencies in determining whether proposed projects would make a cumulatively considerable contribution to global climate change, as required by CEQA. The thresholds identify design elements that an individual project needs to incorporate to do its "fair share" in achieving the State's goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The GHG thresholds for typical land use projects include two options, as follows:

> **Option 1.** Projects must include, at a minimum, the following project design elements:
> <u>Buildings</u>
> a) The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
> b) The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
>
> <u>Transportation</u>
> a) Achieve compliance with electric vehicle (EV) requirements in the most recently adopted version of CALGreen Tier 2.

[9] Bay Area Air Quality Management District (BAAQMD), 2023. CEQA Air Quality Guidelines, May.

b) 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 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    - Residential projects: 15 percent below the existing VMT per capita
    - Office projects: 15 percent below the existing VMT per employee
    - Retail projects: no net increase in existing VMT

Option 2. Be consistent with local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Alameda County does not have a local GHG Reduction Strategy that meets the Option 2 criterion.

3.2.3 Local Regulations

Alameda County Climate Action Plan for Government Services and Operations

In May 2010, the Alameda County adopted the Alameda County Climate Action Plan for Government Services and Operations Through 2020 (CAP 2020), including 16 Commitments to Climate Project that aim to reduce GHG emissions associated with providing government services by 15 percent to 30 percent below 2003 levels by 2020. The CAP 2020 goal was met in 2019. The updated climate action plan, Alameda County Climate Action Plan for Government Services and Operations Through 2026 (CAP 2026), was adopted by Alameda County in May 2023. Aligning with the State's long-term climate action goals, CAP 2026 set a goal to achieve carbon neutrality by 2045 and contains six action areas including building environment, community resilience, green economy and prosperity, sustainable materials management, transportation, and climate leadership and governance. The CAP 2026 focuses on actions that need to be taken between 2023 to 2026.

3.3 Significance Criteria

According to the CEQA Guidelines Appendix G, implementation of the project would have a significant impact related to GHG if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or

2. Fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing the emissions of GHGs.

It should be noted that the BAAQMD's GHG thresholds of significance described under Option 1 were developed for typical residential and commercial land use projects, which are consistent with the 2022 Scoping Plan. In this analysis, the project's consistency with the building decarbonization design element (no natural gas) is not evaluated for the proposed new fire station because it is not considered a typical residential or commercial land use. Similarly, the BAAQMD's Option 1 design element for transportation is not applicable to the project because the project-generated VMT reduction targets do not include fire station uses.

3.4 Impact Analysis

3.4.1 GHG Emissions from the Project

The project would generate temporary GHG emissions through construction activities, such as operation of on-site heavy construction equipment and off-site construction vehicle trips. The BAAQMD does not recommend a threshold of significance for GHG emissions during construction because there is not sufficient evidence to determine a level at which temporary construction emissions are significant.[10] Furthermore, a construction contractor would also have no incentive to waste fuel during construction and, therefore, it is generally assumed that GHG emissions during construction would be minimized to the maximum extent feasible.

Operation of the project would generate GHG emissions from several sources, such as the buildings (area, energy, water, solid waste disposal), an emergency diesel generator, and on-road vehicles. As the existing fire station operations and maintenance would be transferred to the proposed new fire station, project operations are not expected to result in a substantial increase in GHG emissions. In addition, the project's consistency with the BAAQMD's recommended design elements (Option 1 thresholds) is evaluated in **Table 9**. As presented in **Table 9**, the project is designed to incorporate the applicable design elements. Therefore, the project would contribute its "fair share" to achieve the state's long-term climate goals.

Table 9: Project Consistency with BAAQMD Design Elements for GHG Emissions

Design Element		Project Consistency
Building	No Natural Gas	**Not applicable.** The project would include natural gas uses for cooking for the new fire station. As discussed above, the building decarbonization design element (no natural gas) does not apply to fire stations because it is not considered a typical residential or commercial land use.

[10] Bay Area Air Quality Management District (BAAQMD), 2023. CEQA Air Quality Guidelines, May.

Table 9: Project Consistency with BAAQMD Design Elements for GHG Emissions

Design Element		Project Consistency
	No Wasteful, Inefficient, or Unnecessary Energy Usage	**Consistent**. The project will be required to comply with state and locally mandated energy efficiency/conservation measures. Therefore, operation of the project would not result in inefficient, wasteful, or unnecessary energy usage.
Transportation	California Green Building Standards (CALGreen) Tier 2 EV Requirement	**Consistent**. In accordance with the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle Charging Stations at Alameda County Facilities, the project would include two parking spaces with level-2 EV charging stations. In accordance with CALGreen 2022 Section A5.106.5.3.2 Tier 2, 3 parking spaces out of the proposed 9 parking spaces would need to be EV capable spaces. No Electric Vehicle Supply Equipment (EVSE) required. The project does not meet the CALGreen Tier 2 EV capable requirement, but would exceed the EVSE requirement. Therefore, the project would be generally consistent with CALGreen Tier 2 requirements.
	Project-Generated Vehicle Miles Traveled (VMT) Reduction	**Not Applicable**. As discussed above, project-generated VMT reduction targets included in this design element do not apply to fire stations. Therefore, this design element is not applicable to the project. The new fire station will be staffed with the same number of employees as the existing fire station. Project-generated VMT would be substantially the same as the existing condition.

Source: BAAQMD, 2023

3.4.2 Consistency with GHG Plans

Consistency with 2022 Scoping Plan

As discussed above, the project includes the applicable BAAQMD-recommended design elements that an individual project needs to incorporate to do its "fair share" in achieving the state's goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. The project will be required to comply with state and locally mandated energy efficiency/conservation measures, ensuring building energy efficiency. In addition, the project would construct EV charging infrastructure that meets the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle Charging Stations requirements, supporting the transition to zero-emission vehicles. In summary, the project would not conflict with the 2022 Scoping Plan.

Consistency with Alameda County CAP 2026

As discussed above, the project would include EV charging infrastructure, which is consistent with the CAP 2026 Transportation Measure T6 – Smart Parking Policies. The measure

recommends designation of an increasing amount of parking throughout the County for carpools, low-emission vehicles, or zero-emission vehicles only. The project would not conflict with CAP 2026.

4 CONCLUSIONS

With implementation of the BAAQMD's Best Management Practices for Construction-Related Fugitive Dust Emissions as either a condition of approval or mitigation measure, construction and operation of the project would not result in a substantial net increase in criteria air pollutants or health risks associated with TACs emissions. In addition, the project would contribute its "fair share" to achieve the state's long-term climate goals and not conflict with applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions.

ATTACHMENT A

Supporting Air Quality Calculations

FS 22 Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	FS 22
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.30
Precipitation (days)	27.6
Location	507 Paseo Grande, San Lorenzo, CA 94580, USA
County	Alameda
City	Unincorporated
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1663
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.29

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
Parking Lot	9.00	1000sqft	0.21	0.00	0.00	—	—	9 parking spaces

Government Office Building	7.70	1000sqft	0.93	7,700	5,300	—	—	New fire station

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.42	1.20	9.07	11.6	0.02	0.33	0.34	0.67	0.30	0.08	0.38	—	2,181	2,181	0.08	0.03	1.47	2,194
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	8.57	8.54	22.3	17.4	0.07	0.71	8.75	9.46	0.67	3.66	4.33	—	10,280	10,280	0.51	1.30	0.49	10,682
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.17	1.02	6.20	7.66	0.01	0.23	0.36	0.58	0.21	0.11	0.32	—	1,476	1,476	0.06	0.03	0.46	1,486
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.21	0.19	1.13	1.40	< 0.005	0.04	0.06	0.11	0.04	0.02	0.06	—	244	244	0.01	< 0.005	0.08	246

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.25	0.24	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.38	1.38	< 0.005	< 0.005	—	1.38
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	154	154	0.02	< 0.005	—	155
Water	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Waste	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Total	0.32	0.31	0.22	0.53	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	6.79	193	200	0.71	0.01	0.02	220
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	154	154	0.02	< 0.005	—	155
Water	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Waste	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Total	0.26	0.25	0.22	0.20	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	6.79	191	198	0.71	0.01	0.02	219
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.22	0.22	< 0.005	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.68	0.68	< 0.005	< 0.005	—	0.68
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	154	154	0.02	< 0.005	—	155
Water	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Waste	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Stationary	0.07	0.06	0.17	0.15	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	30.8	30.8	< 0.005	< 0.005	0.00	30.9

Total	0.29	0.28	0.22	0.36	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	6.79	191	198	0.71	0.01	0.02	219
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	25.5	25.5	< 0.005	< 0.005	—	25.7
Water	—	—	—	—	—	—	—	—	—	—	—	0.49	0.94	1.43	0.05	< 0.005	—	3.04
Waste	—	—	—	—	—	—	—	—	—	—	—	0.64	0.00	0.64	0.06	0.00	—	2.24
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Stationary	0.01	0.01	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	5.11	5.11	< 0.005	< 0.005	0.00	5.12
Total	0.05	0.05	0.04	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	1.12	31.7	32.8	0.12	< 0.005	< 0.005	36.2

3. Construction Emissions Details

3.1. Site Preparation (2025) - 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	1.56	1.31	12.1	12.1	0.02	0.56	—	0.56	0.52	—	0.52	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	6.33	6.33	—	3.01	3.01	—	—	—	—	—	—	—

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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.12	1.36	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	321	321	0.01	0.01	0.04	326
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	0.59	0.17	10.1	3.86	0.05	0.15	2.09	2.23	0.15	0.57	0.72	—	7,895	7,895	0.42	1.27	0.46	8,285

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	—	1.77	1.77	< 0.005	< 0.005	< 0.005	1.80
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	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.2	43.2	< 0.005	0.01	0.04	45.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.29	0.29	< 0.005	< 0.005	< 0.005	0.30
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.16	7.16	< 0.005	< 0.005	0.01	7.52

3.3. Grading (2025) - 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	1.80	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.02	0.02	0.15	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
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	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.12	1.36	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	321	321	0.01	0.01	0.04	326
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	—	3.55	3.55	< 0.005	< 0.005	0.01	3.60
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	—	0.59	0.59	< 0.005	< 0.005	< 0.005	0.60
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

3.5. Building Construction (2025) - 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	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
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 Equipment	1.28	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
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	0.70	0.58	4.90	5.50	0.01	0.18	—	0.18	0.17	—	0.17	—	987	987	0.04	0.01	—	990
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	0.13	0.11	0.89	1.00	< 0.005	0.03	—	0.03	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
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	0.14	0.14	0.09	1.54	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	346	346	0.01	0.01	1.38	352
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.6	33.6	< 0.005	< 0.005	0.09	35.2
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	0.14	0.13	0.12	1.36	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	321	321	0.01	0.01	0.04	326
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	33.6	33.6	< 0.005	< 0.005	< 0.005	35.1
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	0.07	0.07	0.06	0.72	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.33	180
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	18.4	18.4	< 0.005	< 0.005	0.02	19.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.3	29.3	< 0.005	< 0.005	0.05	29.8
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.05	3.05	< 0.005	< 0.005	< 0.005	3.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - 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	0.59	0.49	4.63	6.50	0.01	0.20	—	0.20	0.19	—	0.19	—	992	992	0.04	0.01	—	995
Paving	0.05	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.01	0.13	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.2	27.2	< 0.005	< 0.005	—	27.3
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	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
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	0.04	0.04	0.04	0.43	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	100	100	< 0.005	< 0.005	0.01	102
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	—	2.77	2.77	< 0.005	< 0.005	0.01	2.81
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	—	0.46	0.46	< 0.005	< 0.005	< 0.005	0.47
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

3.9. Architectural Coating (2025) - 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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	8.28	8.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	0.23	0.23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.14	0.13	0.12	1.36	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	321	321	0.01	0.01	0.04	326
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.86	8.86	< 0.005	< 0.005	0.02	9.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.47	1.47	< 0.005	< 0.005	< 0.005	1.49
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. Demolition (2025) - 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	1.75	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	—	0.22	0.22	—	0.03	0.03	—	—	—	—	—	—	—

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	0.10	0.08	0.76	0.83	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	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	0.02	0.01	0.14	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.13	0.12	1.36	0.00	0.00	0.33	0.33	0.00	0.08	0.08	—	321	321	0.01	0.01	0.04	326
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	0.01	< 0.005	0.22	0.08	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	172	172	0.01	0.03	0.01	180
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.7	17.7	< 0.005	< 0.005	0.03	18.0
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.42	9.42	< 0.005	< 0.005	0.01	9.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.93	2.93	< 0.005	< 0.005	0.01	2.98
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.56	1.56	< 0.005	< 0.005	< 0.005	1.64

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.41	4.41	< 0.005	< 0.005	—	4.45
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	91.1	91.1	0.01	< 0.005	—	92.0
Total	—	—	—	—	—	—	—	—	—	—	—	—	95.5	95.5	0.02	< 0.005	—	96.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	4.41	4.41	< 0.005	< 0.005	—	4.45
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	91.1	91.1	0.01	< 0.005	—	92.0

Total	—	—	—	—	—	—	—	—	—	—	—	—	95.5	95.5	0.02	< 0.005	—	96.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.73	0.73	< 0.005	< 0.005	—	0.74
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	15.1	15.1	< 0.005	< 0.005	—	15.2
Total	—	—	—	—	—	—	—	—	—	—	—	—	15.8	15.8	< 0.005	< 0.005	—	16.0

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.6	58.6	0.01	< 0.005	—	58.8
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.6	58.6	0.01	< 0.005	—	58.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.6	58.6	0.01	< 0.005	—	58.8
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.6	58.6	0.01	< 0.005	—	58.8

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Government Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.70	9.70	< 0.005	< 0.005	—	9.73
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.70	9.70	< 0.005	< 0.005	—	9.73

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	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.06	0.05	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.38	1.38	< 0.005	< 0.005	—	1.38
Total	0.25	0.24	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.38	1.38	< 0.005	< 0.005	—	1.38
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Product	0.17	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.19	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11
Total	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.11	0.11	< 0.005	< 0.005	—	0.11

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Government	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Total	—	—	—	—	—	—	—	—	—	—	—	2.93	5.70	8.63	0.30	0.01	—	18.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	0.49	0.94	1.43	0.05	< 0.005	—	3.04
Total	—	—	—	—	—	—	—	—	—	—	—	0.49	0.94	1.43	0.05	< 0.005	—	3.04

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Government	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Total	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Total	—	—	—	—	—	—	—	—	—	—	—	3.86	0.00	3.86	0.39	0.00	—	13.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	0.64	0.00	0.64	0.06	0.00	—	2.24
Total	—	—	—	—	—	—	—	—	—	—	—	0.64	0.00	0.64	0.06	0.00	—	2.24

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Government Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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)

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Total	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Total	0.07	0.06	0.17	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	31.5	31.5	< 0.005	< 0.005	0.00	31.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.01	0.01	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	5.11	5.11	< 0.005	< 0.005	0.00	5.12
Total	0.01	0.01	0.03	0.03	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	5.11	5.11	< 0.005	< 0.005	0.00	5.12

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 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)

Vegetation	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	1/30/2025	2/1/2025	5.00	2.00	—
Grading	Grading	2/2/2025	2/7/2025	5.00	4.00	—
Building Construction	Building Construction	2/8/2025	11/15/2025	5.00	200	—
Paving	Paving	11/16/2025	11/30/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	12/1/2025	12/15/2025	5.00	10.0	—
Demolition	Demolition	1/1/2025	1/29/2025	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	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73

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	40.0	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	113	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	40.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	40.0	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	1.26	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	40.0	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT

Architectural Coating	Onsite truck	—	—	HHDT
Demolition	—	—	—	—
Demolition	Worker	40.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	2.45	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	11,550	3,850	540

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Site Preparation	0.00	1,800	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.21
Demolition	0.00	0.00	0.00	196	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Parking Lot	0.21	100%
Government Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	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
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Government Office Building	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	11,550	3,850	540

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)
Parking Lot	7,884	204	0.0330	0.0040	0.00
Government Office Building	162,998	204	0.0330	0.0040	182,877

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Parking Lot	0.00	0.00
Government Office Building	1,529,680	60,215

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Parking Lot	0.00	—
Government Office Building	7.16	—

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
Government Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Government Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. 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	0.14	50.0	268	0.73

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	According to the Site Reduction (Redesign #2) Layout C1.2, the fire station's reduced site area is approximately 0.93 acre. The Landscape Area was conservatively estimated based on the planting area included in the Site Reduction (Redesign #2) Layout C1.2.
Construction: Construction Phases	—
Operations: Vehicle Data	No net change from the existing condition.
Construction: Trips and VMT	According to the project description, an average of 20 construction workers are expected to be on-site daily (40 one-way worker commute trips per day) during project construction.
Operations: Emergency Generators and Fire Pumps	—

APPENDIX B

Noise Technical Report

MEMORANDUM

Date: 19 March 2025 **Job No.:** 21215-05

To: Whitney Broeking, Panorama Environmental

From: Yilin Tian, Environmental Engineer, Baseline Environmental Consulting

Subject: **Noise and Vibration Analysis for Alameda County Fire Station 22**

Baseline Environmental Consulting (Baseline) has prepared this technical memorandum to evaluate potential impacts related to noise and vibration to support CEQA review of the proposed Alameda County Fire Station 22 Project (project) in the town of San Lorenzo in unincorporated Alameda County, California. The project would construct a new fire station on Paseo Grande, approximately 300 feet from the existing fire station.

1 PROJECT DESCRIPTION

The project would be constructed on one parcel, totaling 0.93-acres (Assessor's Parcel Number 412-31-93)), on Paseo Grande between Paseo Largavista and Hesperian Boulevard (project site) approximately 300 feet west of the existing fire station, as shown in **Figure 1**. The project site is paved and contains one of the former commercial building foundations. The existing fire station consists of a 3,967 square-foot building and parking lot. The building contains shops, offices, a kitchen and dining areas, dorm rooms, lockers, exercise rooms, and four apparatus bays. Building features include a 75-kilowatt generator and an air compressor. The fire station has three employees.

The project would construct a 7,688-square-foot, 25-foot-tall, 1-story fire station on the project site. The new fire station would have a lobby, personnel offices, workstations, two apparatus bays, kitchen and dining spaces, crew dormitories and lockers, a training room, and storage rooms. The proposed facility would include additional building space and parking to accommodate the Alameda County Fire Department's (ACFD) current and future operational needs. The existing air compressor would be replaced in-kind.

The new fueling tank would feature a 1,000-gallon aboveground tank, with pumps that would dispense diesel and gas to ACFD fleet vehicles and equipment. The fueling tank would be within an enclosure. A new 200-kilowatt emergency generator would replace the 75-kilowatt emergency generator with a belly tank placed on a concrete pad east of the new building. The emergency generator would be within an enclosure and would be tested weekly.

The project would construct nine parking spaces. In accordance with the California Green Building Standards Code and the Alameda County Guidelines for Future Electric Vehicle

Charging Stations at Alameda County Facilities, two parking spaces will be equipped with level-2 electric vehicle charging stations.

Project construction is anticipated to begin in 2026 and last approximately 18 months. Upon completion of construction, the three employees at the existing fire station and the existing fire station operations and maintenance would be transferred to the new fire station. The existing fire station would be turned over to Alameda County for its use.

2 ENVIRONMENTAL SETTING

Noise and Vibration Concepts

Noise is commonly defined as unwanted sound that annoys or disturbs people and can have an adverse psychological or physiological effect on human health. Sound is measured in decibels (dB), which is a logarithmic scale. Decibels describe the purely physical intensity of sound based on changes in air pressure, but they cannot accurately describe sound as perceived by the human ear since the human ear is only capable of hearing sound within a limited frequency range. For this reason, a frequency-dependent weighting system is used, and monitoring results are reported in A-weighted decibels (dBA).

A typical method for determining a person's subjective reaction to a new noise is by comparing it to existing conditions. The following describes the general effects of noise on people: 1) a change of 1 dBA cannot typically be perceived except in carefully controlled laboratory experiments; 2) a 3-dBA change is considered a just-perceivable difference; 3) a minimum of 5-dBA change is required before any noticeable change in community response is expected; and 4) a 10-dBA change is subjectively perceived as approximately a doubling or halving in loudness.[1]

Traffic noise levels are often expressed in terms of the hourly dBA. The noise levels generated by vehicular sources mainly depend on traffic volume, the speed, and the percent of trucks within the fleet. Increases in these three factors will lead to higher noise levels. Doubling the number of sources, such as traffic volume, increases the noise level by approximately 3 dBA due to the logarithmic nature of noise levels.[2]

[1] Charles M. Salter Associates, Inc., 1998. Acoustics – Architecture, Engineering, the Environment, William Stout Publishers.
[2] Federal Highway Administration (FHWA), 2018. Techniques for Reviewing Noise Analyses and Associated Noise Reports.

Figure 1. Project Location



In an unconfined space, such as outdoors, noise attenuates with distance. Noise levels at a known distance from point sources are reduced by 6 dBA for every doubling of that distance for hard surfaces (e.g., asphalt) and by 7.5 dBA for every doubling of distance for soft surfaces (e.g., vegetative areas).

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Vibration amplitudes are usually expressed as either peak particle velocity (PPV) or the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous peak of the vibration signal. PPV is appropriate for evaluating potential damage to buildings, but it is not suitable for evaluating human response to vibration because it takes the human body time to respond to vibration signals.

The response of the human body to vibration is dependent on the average amplitude of a vibration. The RMS of a signal is the average of the squared amplitude of the signal and is more appropriate for evaluating human response to vibration. PPV is normally described in units of inches per second (in/sec) and RMS is often described in vibration decibels (VdB). Vibration can be felt or heard by humans well below a level that would result in damage to a structure. Except for long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. According to the Federal Transit Administration (FTA), a vibration level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible.[3]

Existing Ambient Noise Environment

The primary sources of noise in the vicinity of the project site are traffic on nearby roadways, such as Hesperian Boulevard and Paseo Grande. The Interstate Highway 880 is located approximately 900 feet away from the project site. According to ambient noise monitoring conducted for the San Lorenzo Senior Housing Project located about 480 feet northeast to the project site,[4] ambient noise levels along Hesperian Boulevard and Paseo Grande in the vicinity of the project were at 71.6 dBA Leq and 60.8 dBA Leq, respectively.

[3] Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, FTA Report No.0123, September.
[4] ICF International, 2014. San Lorenzo Senior Housing Project Draft Initial Study/Mitigated Negative Declaration. April.

Sensitive Receptors

Noise-sensitive land uses typically include residences, motels and hotels, schools, libraries, houses of worship, hospitals, convalescent homes, and parks and outdoor recreation areas. The sensitive receptors in the vicinity of the project site include the following:

1) residences to the northwest (as close as 30 feet), to the west (as close as 55 feet), to the south (as close as 170 feet), to the northeast (as close as 670 feet), and to the east (as close as 320 feet);
2) The Franskin Day Care to the south (about 685 feet);
3) The Arbor at Hesperian to the northeast (elderly housing, about 480 feet);
4) The San Lorenzo Library to the northeast (about 370 feet);
5) San Lorenzo Library playground to the northeast (about 510 feet);
6) The Lollipop Lane Preschool to the east (about 630 feet); and
7) The Marseille Delgado Crayolas Daycare to the northwest (about 940 feet).

Regulatory Regulations and Guidance

Federal Transit Administration

The FTA has developed a general construction noise threshold of 90 dBA Leq at the nearest noise-sensitive receptor.[5] According to the FTA, if the combined noise level in 1 hour from the two noisiest pieces of equipment exceeds the 90 dBA threshold at a residential land use (or other noise-sensitive receptors), then there may be a substantial adverse reaction.

In addition, the FTA has developed vibration thresholds to prevent disturbances to (i.e., annoyance of) building occupants based on the frequency of a vibration event.[6] Vibrations that are equal to or exceed the vibration thresholds could result in potential disturbance to people or activities. The FTA thresholds of 80 VdB and 83 VdB for infrequent events[7] are used in this analysis to evaluate disturbance to residences and buildings where people normally sleep and to institutional land uses with primarily daytime use (such as schools and library), respectively.

[5] Federal Transit Administration (FTA), Office of Planning and Environment. 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06.
[6] Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, FTA Report No.0123, September.
[7] Infrequent events = less than 30 events per day. The "infrequent events" threshold is appropriate for construction equipment in this analysis based on the nature of proposed construction activities.

California Department of Transportation

The California Department of Transportation (Caltrans) has developed vibration thresholds based on PPV values to evaluate the potential impact of construction vibration on structures.[8] Construction vibrations that are equal to or exceed the vibration thresholds could result in potential damage to structures. For frequent intermittent vibratory sources during construction (e.g., vibratory compaction equipment), Caltrans recommends a threshold of 0.5 in/sec to prevent potential damage to modern industrial/commercial buildings and new residential structures and 0.3 in/sec for older residential structures.

Alameda County Noise Ordinance

Alameda County regulates noise via the County's Noise Ordinance (Code of Ordinance Chapter 6.60). Chapter 6.60.040 establishes exterior noise level standards based on receiving land use, as shown in **Table 1**. In accordance with Chapter 6.60.070, the County Noise Ordinance does not apply to noise sources associated with construction if the construction activities occur between 7 a.m. and 7 p.m. on weekdays, or between 8 a.m. and 5 p.m. on weekends. Chapter 6.60.050.B. prohibits the generation of vibration levels above the vibration perception threshold at or beyond the property boundary of the source if on private property or at 150 feet from the source if on a public space or public right-of-way. According to chapter 6.60.070, warning devices, necessary for the protection of public safety as, for example, police, fire and ambulance sirens and train horns are exempted from noise ordinance requirements.

Table 1. Alameda County Exterior Noise Level Standards (dBA)

Cumulative Number of Minutes in any One Hour Time Period	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Single- or multiple-family residential, school, hospital, church, and public library		
30	50	45
15	55	50
5	60	55
1	65	60
0	70	65
Commercial Uses		
30	65	60
15	70	65
5	75	70
1	80	75
0	85	80

[8] California Department of Transportation (Caltrans), 2020. Transportation and Construction Vibration Guidance Manual.

Source: Alameda County Code of Ordinance Chapter 6.60.040.

3 SIGNIFICANCE CRITERIA

Implementation of the project would result in a significant impact related to noise and vibration if it would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
2. Generate excessive groundborne vibration or groundborne noise levels; or
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

The construction hours of the project would generally be scheduled during the daytime from 7 a.m. to 5 p.m., Monday through Friday, and possibly on weekends between 8 a.m. and 5 p.m.; therefore, the project's daytime construction activities would be exempt from the County Noise Ordinance. No nighttime construction is expected for this project. For construction noise impact, speech interference is used as an indicator for substantial increases in noise levels at nearby noise-sensitive receptors during project construction. In accordance with Caltrans Traffic Noise Analysis Protocol,[9] 67 dBA is the approximate noise level at which the noise begins to interfere with human speech assuming two people are speaking. Standard building structures provide approximately 12 to 17 dBA noise attenuation with windows open.[10] With windows closed, the noise attenuation factor is about 20 dBA for older structures and about 25 dBA for newer dwellings. Assuming windows closed and older structure, speech interference could occur when exterior noise levels exceed 87 dBA. The 87 dBA speech interference threshold is more conservative than the FTA 90 dBA threshold.

For construction vibration, the Caltrans thresholds of 0.5 in/sec for modern commercial buildings is used to evaluate potential structural impacts at the nearby commercial buildings such as the Public Storage facility directly adjacent to the project site to the north (about 15 feet), and the 0.3 in/sec threshold for older residential buildings is used for nearby residences to be conservative. Because the proposed fire station is public property, the generation of vibration levels above the vibration perception threshold at 150 feet from the source is used to

[9] California Department of Transportation, 2020. Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects, April

[10] US EPA. 1974. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Available at: https://www.nonoise.org/library/levels74/levels74.htm

evaluate potential disturbance impacts in accordance with the Alameda County Code of Ordinance Chapter 6.60.050.B. Because Chapter 6.60.050.B. does not provide a numerical threshold for vibration perception, the FTA's vibration perception threshold of 75 VdB is used to evaluate the vibration disturbance impact at 150 feet from the source. In addition, the FTA thresholds of 80 VdB and 83 VdB are used to evaluate vibration disturbance to residences where people normally sleep and to institutional land uses with primarily daytime use, respectively.

4 IMPACT ANALYSIS

Noise from Project Construction

The primary source of noise during construction would be off-road equipment activities on the project site. Construction noise levels would vary from day-to-day, depending on the number and type of equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers, if any, between the noise source and receptor. Pile driving, which can generate extreme levels of noise, is not proposed as part of the project.

The construction of the project is anticipated to begin in August 2026 and last approximately 18 months. To evaluate noise levels during project construction, the types of construction equipment that would be used on the project site were generated by the most recent version of the California Emissions Estimator Model (CalEEMod, version 2022.1.1), based on the default equipment list. The default construction equipment list is based on a combination of statewide and regional surveys of land use construction projects. In accordance with guidance from FTA, daytime construction noise impacts were evaluated by quantifying the maximum noise levels that would result from the simultaneous operation of the two noisiest pieces of equipment near the perimeter of the project development area closest to a sensitive receptor.[11] A copy of the CalEEMod report for the project, and noise calculations are provided in **Attachment A**.

As shown in **Table 2,** the project's construction noise levels were estimated at the nearest residential, institutional (e.g. pre-school, school, and public library), and recreational (e.g. playground) land uses, which were assumed to be 30 feet to the northwest, 370 feet to the northeast, and 510 feet to the northeast of proposed construction activities, respectively. As shown in **Table 2**, project construction would generate noise levels that could potentially exceed the 87 dBA Leq noise threshold by up to 3 dBA Leq at the nearby residential receptors, without implementation of any noise reduction measures.

[11] Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, FTA Report No.0123, September.

Table 2. Potential Noise Impacts from Project Construction (dBA Leq[1])

Construction Phase	Nearest Residential[2] (30 feet distance)	Nearest Institutional[2] (370 feet distance)	Nearest Recreational[2] (510 feet distance)
Demolition	90	68	65
Site Preparation	88	67	64
Grading	88	67	64
Building Construction	87	65	62
Paving	89	68	65
Exceed the 87 dBA Threshold?	**Yes**	No	No
Noise Attenuation (dBA) Needed	-3	Not Needed	Not Needed

Notes:
[1] The average A-weighted noise level during a one-hour period.
[2] The nearest residential, institutional, and recreational land uses are the single-family home about 30 feet to the northwest, the San Lorenzo Library about 370 feet to the northeast, and the San Lorenzo Library playground about 510 feet to the northeast of the project site, respectively.
Source: Detailed calculations are provided in **Attachment A**.

To reduce potential noise impacts related to project construction, Baseline recommends implementing the following noise reduction measure. According to Appendix A of the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model User's Guide,[12] if the noise source is shielded with a solid noise barrier located close to the source, an 8 dBA reduction can be achieved. In addition, reductions of 10 dBA or more can be achieved with optimal muffler systems.[13] Implementation of the noise reduction measures would reduce construction noise levels by up to 18 dBA Leq, ensuring that project construction would not result in excessive noise levels at nearby sensitive receptors.

Construction Noise Management Plan

The following noise reduction measures shall be implemented during construction:

1. The contractor shall properly muffle and maintain all construction equipment powered by internal combustion engines.

2. Idling of combustion engines shall be limited to a maximum of 5 minutes.

[12] Federal Highway Administration (FHWA), 2006. FHWA Roadway Construction Noise Model User's Guide. January.
[13] Federal Highway Administration (FHWA), 2017. Special Report – Measurement, Prediction, and Mitigation. Available at: www.fhwa.dot.gov/Environment/noise/construction_noise/special_report/hcn04.cfm. Accessed April 2024.

3. All stationary noise-generating construction equipment, such as air compressors, shall be located as far as practical from existing nearby residences. To the extend feasible, such equipment shall also be acoustically shielded with partial enclosures or temporary noise barriers.

4. Select quiet construction equipment, particularly air compressors, whenever possible. Fit motorized equipment with proper mufflers in good working order.

5. Construct or use temporary noise barriers (minimum 8 feet in height) along the project northern perimeter to shield construction and demolition noise from noise-sensitive receptors to the extent feasible. Examples of barriers include solid plywood construction barrier and/or construction noise barrier blankets on temporary fencing. These noise barriers should be installed without cracks or gaps in the face or large or continuous gaps at the base. The materials used to construct the noise barrier should have a minimum surface weight of 2.5 lb./sq. ft., such as 3/4" plywood panels. Construction noise barrier blankets should have a minimum Sound Transmission Class (STC) rating of 25.

6. Residences adjacent to project sites shall be notified 14 days in advance of construction. The notification shall include information regarding construction schedule and contact information for a noise a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise.

7. The project applicant shall designate a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem. A telephone number for the noise disturbance coordinator shall be posted at the construction site.

Noise from Project Operation

The new fire station will be located approximately 300 feet from the existing fire station. The primary sources of noise from operation of the existing fire station include on-site vehicle maintenance and movements, fire sirens when responding to emergency calls, and the use of stationary equipment such as an emergency generator. Existing fire station operations and maintenance would be transferred to the new fire station, including the apparatus bays, offices, sleeping rooms and lockers, workshops, training rooms, and fleet vehicles. The existing air compressor would be replaced in-kind. The existing 75-kilowatt emergency diesel generator would be replaced with a 200-kilowatt emergency diesel generator. The new generator would

be placed on a concrete pad east of the new fire station within an enclosure. Although the new generator would be bigger in size compared to the existing generator, the noise generated by it would be similar to the existing condition because the generator would be enclosed and only operate for daytime periodic testing and emergencies. The new fueling tank would feature a 1000-gallon aboveground tank, which would be placed within an enclosure. The project would not change the number of employees and the service area of the fire station, or the number of emergency calls the employees respond to per month. Therefore, the onsite noise generated by the fire station operations described above would be substantially the same as the existing condition, and would not result in a substantial increase in noise levels at nearby sensitive receptors.

In addition, it was conservatively assumed that the project would include a heating, ventilation, and air conditioning (HVAC) system. Although the noise-generating characteristics and location of the HVAC system for the project was not available at the time of preparation of this analysis, noise from a typical commercial-scale HVAC system can range from approximately 65 to 75 dBA at 50 feet, having the potential to exceed the thresholds outlined in **Table 1** at the nearby residential land uses (50 dBA during the daytime and 45 dBA during the nighttime). To reduce potential noise impacts related to HVAC operation, Baseline recommends implementing the following noise reduction measure. Implementation of control measures for fixed mechanical equipment would ensure project's HVAC operation would not result in excessive noise levels at nearby sensitive receptors.

Fixed Mechanical Equipment Noise Control for Building Operations

During operation, the project applicant shall implement noise reduction measures to reduce potential noise impacts at the nearby noise-sensitive receptors, such as the following:

1. Enclosing noise-generating mechanical equipment
2. Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment;
3. Using mufflers or silencers on equipment exhaust fans
4. Orienting or shielding equipment to protect noise-sensitive receptors
5. Increasing the distance between noise-generating equipment and noise-sensitive receptors; and/or
6. Placing barriers around the equipment to facilitate the attenuation of noise.

Vibration from Project Construction

Construction activities can result in varying degrees of ground vibration, depending on the equipment, activity, and soil conditions. The primary types of equipment that would generate ground vibration during project construction and the associated vibration calculations are included in **Attachment A**. To evaluate the project's potential vibration effects on nearby

sensitive receptors, a buffer distance that would be needed to avoid exceeding the FTA and Caltrans construction vibration thresholds mentioned above was estimated for each type of equipment. It was conservatively assumed that the equipment that could generate substantial ground vibration would be used near the project boundaries. The estimated buffer distances for potential disturbance and building damage are summarized in **Table 3 and Table 4, respectively.** In addition, the potential vibration levels generated by each type of construction equipment were estimated at 150 feet from the project site to evaluate the potential vibration disturbance impact. The estimated vibration levels at 150 feet are also summarized in **Table 3**.

Table 3. Potential Vibration Disturbance during Construction

Construction Equipment	Vibration Levels at 150 feet (VdB)	Buffer Distances to Prevent Potential Human Disturbance (feet)	
		Institutional (Threshold: 83 VdB)[1]	Residential (Threshold: 80 VdB) [2]
Vibratory Roller	71	58	73
Large Bulldozer	64	34	43
Loaded Trucks	63	31	40
Small Bulldozer	35	4	5
Exceed the 75 VdB at 150 feet Threshold?	No	Not Applicable	

Note: Vibration calculations are included in **Appendix A**.

[1] The FTA thresholds of 83 VdB for institutional land uses with primarily daytime use (such as schools) from infrequent construction events was used to calculate the buffer distances from construction equipment.

[2] The FTA thresholds of 80 VdB for residences and buildings where people normally sleep from infrequent construction events was used to calculate the buffer distances from construction equipment.

Table 4. Potential Vibration Damage to Buildings during Construction

Construction Equipment	Buffer Distances to Prevent Potential Structural Damage (feet)	
	Modern Commercial (Threshold: 0.5 in/sec)[1]	Residential (Threshold: 0.3 in/sec) [2]
Vibratory Roller (Undefined Tonnage)	14	20
Large Bulldozer	8	11
Loaded Trucks	7	10
Small Bulldozer	1	1

Note: Vibration calculations are included in **Appendix A**.

[1] The Caltrans vibration threshold of 0.5 in/sec for modern commercial buildings was used to calculate the buffer distances from construction equipment for the nearby commercial buildings.

[2] To be conservative, the Caltrans vibration threshold of 0.3 in/sec for older residential structures was used to calculate the buffer distances from construction equipment for the nearby residences.

As shown in **Table 3**, vibration levels at 150 feet from the construction equipment would not exceed the 75 VdB threshold for human disturbance. Therefore, project construction activities would not generate excessive vibration levels that could potentially cause disturbance.

As shown in **Table 3**, the construction equipment that would require the largest buffer distance to avoid generating vibration levels that could cause human disturbance is the vibratory roller. Vibration from a vibratory roller could exceed the 83 VdB threshold at institutional land uses located within 58 feet. The closest institutional land use, the San Lorenzo Library, is approximately 370 feet away from the project site, outside the required buffer distance. Therefore, construction activities would not generate excessive vibration levels that could potentially disturb the normal institutional operations such as school and library. Vibration from a vibratory roller could exceed the 80 VdB threshold at residences and buildings where people normally sleep located within 73 feet. The closest residential land use is about 30 feet away from the project site. Therefore, construction activities could generate excessive vibration levels that potentially disturb residential activities, such as sleeping. As mentioned above, the construction hours of the project would generally be scheduled during the daytime from 7 a.m. to 5 p.m., Monday through Friday, and possibly on weekends between 8 a.m. and 5 p.m. No nighttime construction is expected for this project. Any impact related to noise and vibration would be restricted to normal daytime hours and reducing the likelihood of disturbance of residents (e.g., sleep disturbance). As vibration annoyance impacts on people within residential buildings related to nighttime construction would not occur, construction activities would not be expected to generate excessive vibration levels that would disturb nearby residents.

There are two types of structures near the project site that could potentially be damaged by construction vibration: residences and commercial buildings. As mentioned above, the nearest residence is about 30 feet to the northwest of the project site. The nearest commercial building is the Public Storage facilities about 15 feet to the north of the project site. As shown in **Table 4**, the construction equipment that would require the largest buffer distance to avoid generating vibration levels that could potentially damage a nearby building structure is the vibratory roller. A vibratory roller would require a 14-foot buffer to avoid potential damage to the Public Storage facilities and a 20-foot buffer to avoid potential damage to the nearby residential buildings. Because the Public Storage facilities and all of the residential structures nearby are located outside of the required buffer distances, project construction would not generate vibration levels above the Caltrans building damage thresholds. Therefore, project construction activities would not generate excessive vibration levels that could potentially cause structure damages.

Airport Noise

The existing fire station and the new fire station are both located about 1.1 miles north of the Hayward Executive Airport, within the Hayward Executive Airport Influence Area. According to the noise contours presented in the Hayward Executive Airport Land Use Compatibility Plan,[14] noise levels generated by the Hayward Executive Airport at the existing fire station and the new fire station are less than 55 dBA CNEL. The aircraft noise at the new fire station would be substantially the same as the existing condition and would not result in new noise impact related to the exposure of people to excess noise levels from aircraft noise.

5 CONCLUSIONS

Project construction could potentially generate excessive noise levels at nearby sensitive receptors due to off-road equipment activity; however, implementation of control measures during project construction would substantially reduce the exposure of nearby sensitive receptors to excessive noise.

Project operation could potentially generate excessive noise levels at nearby sensitive receptors due to the use of fixed mechanical equipment. Implementation of control measures for fixed mechanical equipment would ensure project operation would not result in excessive noise levels at nearby sensitive receptors.

[14] Environmental Science Associates, 2021. Hayward Executive Airport Airport Land Use Compatibility Plan. August.

ATTACHMENT A

Supporting Noise and Vibration Calculations

Construction Noise Calculations - Fire Station 22 - Nearest Residence

Construction Phase	Equipment Type[1]	USDOT Equipment Type[2]	No. Equipment[1]	Acoustical Usage Factor[2]	Maximum Noise Level @ 50 feet (Lmax)[3]	Typical Noise Level @ 50 feet (dBA_1)	Reference Distance (D_1)	Distance to Receptor (D_2)	Ground Absorption Constant (G)	Noise Level at Receptor (dBA_2)	Two Noisiest Equipment
			Unit:	%	dBA Lmax	dBA Leq	feet	feet	unitless	dBA Leq	dBA Leq
Demolition	Tractors/Loaders/Backhoes	Backhoe	3	40	80	76	50	30	0	80	90
	Rubber Tired Dozers	Dozer	1	40	85	81	50	30	0	85	
	Concrete/Industrial Saws	Concrete Saw	1	20	90	83	50	30	0	87	
Site Preparation	Graders	Grader	1	40	85	81	50	30	0	85	88
	Rubber Tired Dozers	Dozer	1	40	85	81	50	30	0	85	
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	30	0	80	
Grading	Graders	Grader	1	40	85	81	50	30	0	85	88
	Rubber Tired Dozers	Dozer	1	40	85	81	50	30	0	85	
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	30	0	80	
Building Construction	Cranes	Crane	1	16	88	80	50	30	0	84	87
	Generator Sets	Generator	1	50	82	79	50	30	0	83	
	Welders	Welder/Torch	3	40	73	69	50	30	0	73	
	Tractors/Loaders/Backhoes	Backhoe	2	40	80	76	50	30	0	80	
Paving	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	30	0	80	89
	Cement and Mortar Mixers	Vibratory Concrete Mixer	1	20	76	69	50	30	0	73	
	Pavers	Paver	1	50	85	82	50	30	0	86	
	Paving Equipment	Paver	1	50	85	82	50	30	0	86	
	Rollers	Roller	1	20	85	78	50	30	0	82	

Notes:

Noise level at the receptor calculated based on the following equation:[4]

$dBA_2 = dBA_1 + 10 * \log_{10}(D_1/D_2)^{2+G}$

Where:

dBA_2 = Noise level at receptor

dBA_1 = Noise level at reference distance

D_1 = Reference distance

D_2 = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

$L = 10 * \log_{10} (10^{(L_1/10)}+10^{(L_2/10)})$

L = Combined noise level

L_1 = Noise level for first noisiest piece of equipment

L_2 = Noise level for second noisiest piece of equipment

[1] The type of construction equipment is based on construction equipment list provided by the applicant.

[2] U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

[4] California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.

Construction Noise Calculations - Fire Station 22 - Nearest Institutional

Construction Phase	Equipment Type[1]	USDOT Equipment Type[2]	No. Equipment[1]	Acoustical Usage Factor[2]	Maximum Noise Level @ 50 feet (Lmax)[3]	Typical Noise Level @ 50 feet (dBA_1)	Reference Distance (D_1)	Distance to Receptor (D_2)	Ground Absorption Constant (G)	Noise Level at Receptor (dBA_2)	Two Noisiest Equipment
			Unit:	%	dBA Lmax	dBA Leq	feet	feet	unitless	dBA Leq	dBA Leq
Demolition	Tractors/Loaders/Backhoes	Backhoe	3	40	80	76	50	370	0	59	68
	Rubber Tired Dozers	Dozer	1	40	85	81	50	370	0	64	
	Concrete/Industrial Saws	Concrete Saw	1	20	90	83	50	370	0	66	
Site Preparation	Graders	Grader	1	40	85	81	50	370	0	64	67
	Rubber Tired Dozers	Dozer	1	40	85	81	50	370	0	64	
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	370	0	59	
Grading	Graders	Grader	1	40	85	81	50	370	0	64	67
	Rubber Tired Dozers	Dozer	1	40	85	81	50	370	0	64	
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	370	0	59	
Building Construction	Cranes	Crane	1	16	88	80	50	370	0	63	65
	Generator Sets	Generator	1	50	82	79	50	370	0	62	
	Welders	Welder/Torch	3	40	73	69	50	370	0	52	
	Tractors/Loaders/Backhoes	Backhoe	2	40	80	76	50	370	0	59	
Paving	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	370	0	59	68
	Cement and Mortar Mixers	Vibratory Concrete Mixer	1	20	76	69	50	370	0	52	
	Pavers	Paver	1	50	85	82	50	370	0	65	
	Paving Equipment	Paver	1	50	85	82	50	370	0	65	
	Rollers	Roller	1	20	85	78	50	370	0	61	

Notes:

Noise level at the receptor calculated based on the following equation:[4]

$dBA_2 = dBA_1 + 10 * \log_{10}(D_1/D_2)^{2+G}$

Where:

dBA_2 = Noise level at receptor

dBA_1 = Noise level at reference distance

D_1 = Reference distance

D_2 = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

$L = 10 * \log_{10} (10^{(L_1/10)}+10^{(L_2/10)})$

L = Combined noise level

L_1 = Noise level for first noisiest piece of equipment

L_2 = Noise level for second noisiest piece of equipment

[1] The type of construction equipment is based on construction equipment list provided by the applicant.

[2] U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

[4] California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.

Construction Noise Calculations - Fire Station 22 - Nearest Recreational

Construction Phase	Equipment Type[1]	USDOT Equipment Type[2]	No. Equipment[1]	Acoustical Usage Factor[2]	Maximum Noise Level @ 50 feet (Lmax)[3]	Typical Noise Level @ 50 feet (dBA_1)	Reference Distance (D_1)	Distance to Receptor (D_2)	Ground Absorption Constant (G)	Noise Level at Receptor (dBA_2)	Two Noisiest Equipment
			Unit:	%	dBA Lmax	dBA Leq	feet	feet	unitless	dBA Leq	dBA Leq
Demolition	Tractors/Loaders/Backhoes	Backhoe	3	40	80	76	50	510	0	56	
	Rubber Tired Dozers	Dozer	1	40	85	81	50	510	0	61	65
	Concrete/Industrial Saws	Concrete Saw	1	20	90	83	50	510	0	63	
Site Preparation	Graders	Grader	1	40	85	81	50	510	0	61	
	Rubber Tired Dozers	Dozer	1	40	85	81	50	510	0	61	64
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	510	0	56	
Grading	Graders	Grader	1	40	85	81	50	510	0	61	
	Rubber Tired Dozers	Dozer	1	40	85	81	50	510	0	61	64
	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	510	0	56	
Building Construction	Cranes	Crane	1	16	88	80	50	510	0	60	
	Generator Sets	Generator	1	50	82	79	50	510	0	59	62
	Welders	Welder/Torch	3	40	73	69	50	510	0	49	
	Tractors/Loaders/Backhoes	Backhoe	2	40	80	76	50	510	0	56	
Paving	Tractors/Loaders/Backhoes	Backhoe	1	40	80	76	50	510	0	56	
	Cement and Mortar Mixers	Vibratory Concrete Mixer	1	20	76	69	50	510	0	49	65
	Pavers	Paver	1	50	85	82	50	510	0	62	
	Paving Equipment	Paver	1	50	85	82	50	510	0	62	
	Rollers	Roller	1	20	85	78	50	510	0	58	

Notes:

Noise level at the receptor calculated based on the following equation:[4]

$dBA_2 = dBA_1 + 10 * \log_{10}(D_1/D_2)^{2+G}$

Where:

dBA_2 = Noise level at receptor

dBA_1 = Noise level at reference distance

D_1 = Reference distance

D_2 = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

$L = 10 * \log_{10} (10^{(L_1/10)}+10^{(L_2/10)})$

L = Combined noise level

L_1 = Noise level for first noisiest piece of equipment

L_2 = Noise level for second noisiest piece of equipment

[1] The type of construction equipment is based on construction equipment list provided by the applicant.

[2] U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

[4] California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.

Construction Vibration Calculations for Potential Disturbance (Residential)

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (RMS_1)	Annoyance Vibration Threshold (RMS_2)	Reference Distance (D_1)	Buffer Distance to Annoyance Threshold (D_2)
Unit	VdB	VdB	feet	feet
Vibratory Roller	94	80	25	73
Large bulldozer	87	80	25	43
Loaded trucks	86	80	25	40
Small bulldozer	58	80	25	5

Construction Vibration Calculations for Potential Disturbance (Institutional)

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (RMS_1)	Annoyance Vibration Threshold (RMS_2)	Reference Distance (D_1)	Buffer Distance to Annoyance Threshold (D_2)
Unit	VdB	VdB	feet	feet
Vibratory Roller	94	83	25	58
Large bulldozer	87	83	25	34
Loaded trucks	86	83	25	31
Small bulldozer	58	83	25	4

Notes:

Buffer distance to vibration threshold for human annoyance calculated based on the following equation:[3]

$D_2 = D_1 * 10^{((RMS_1 - RMS_2) / 30)}$

Where:

RMS_1 = Vibration level at reference distance

RMS_2 = Vibration threshold for human disturbance

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for human annoyance

Construction Vibration Calculations for Potential Disturbance

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (RMS_1)	Reference Distance (D_1)	Receptor Distance (D2)	Vibration Level @ 150 Feet (RMS_2)
Unit	VdB	feet	feet	VdB
Vibratory Roller	94	25	150	71
Large bulldozer	87	25	150	64
Loaded trucks	86	25	150	63
Small bulldozer	58	25	150	35

Notes:

Vibration levels at a distance was calculated based on the following equation:

$RMS_2=RMS_1-30*\log_{10}(D_2/D_1)$

where

RMS_1 is the reference vibration level at a specified distance

RMS_2 is the calculated vibration level

D_1 is the reference distance

D_2 is the distance from the equipment to the receiver

Construction Vibration Calculations for Potential Building Damage

Equipment[1]	Typical Vibration Level @ 25 Feet[2] (PPV_1)	Building Damage Vibration Threshold (PPV_2)		Reference Distance (D_1)	Buffer Distance to Damage Threshold (D_2)	
		Modern commercial buildings	Old Residential		Modern commercial buildings	Old Residential
Unit	in/sec	in/sec	in/sec	feet	feet	feet
Vibratory Roller	0.210	0.5	0.3	25	14	20
Large bulldozer	0.089	0.5	0.3	25	8	11
Loaded trucks	0.076	0.5	0.3	25	7	10
Small bulldozer	0.003	0.5	0.3	25	1	1

Notes:

Buffer distance to vibration threshold for building damage calculated based on the following equation:[3]

$D_2 = (PPV_1 / PPV_2)^{(1 / 1.5)} * D_1$

Where:

PPV_1 = Vibration level at reference distance

PPV_2 = Vibration threshold for building damage

D_1 = Reference distance

D_2 = Buffer distance to vibration threshold for building damage

[1] Demolition equipment provided by project applicant, and other equipment based on the CalEEMod default generated for the project. Only equipment that generates substantial vibration is shown.

[2] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-4. September.

[3] Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Equations 7-2 and 7-3. September.



Alameda County Fire Department

Alameda County Fire Station 22 Replacement Project

Responses to Comments and Revisions on the Draft Initial Study/Mitigated Negative Declaration

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Public Review of the Draft IS/MND

Public Review Period

This section includes comments received during the Alameda County Fire Station 22 Replacement Project Initial Study/Mitigated Negative Declaration (IS/MND) public review period. The Draft IS/MND was circulated for a 30-day public review period from July 17, 2025 to August 16, 2025. Forty-two postcard notices were sent out and the notice was posted at the Alameda County Clerk's Office and via CEQANet. Copies of the IS/MND were made available at the Alameda County Fire Department at 6363 Clark Avenue in the City of Dublin and online at the Alameda County Fire Department website: https://fire.acgov.org/measure-x-2.

Comments Received

The Alameda County Fire Department received 1 comment letter on the Draft IS/MND during the public comment period. The commenter is listed in Table 1.

Table 1 Comments Received

Letter #	Commenter	Date
Agencies		
1	East Bay Municipal Utility District	8/12/2025

Comment Letters and Responses

The comment letter and responses are provided below. The comment letter has been numbered sequentially and each separate issue raised by the commenter, if more than one, has been assigned a number. The responses to the comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1.1, for example, indicates that the response is for the first issue raised in comment Letter 1).

LETTER 1
COMMENTER: East Bay Municipal Utility District
DATE: August 12, 2025

EAST BAY MUNICIPAL UTILITY DISTRICT

August 12, 2025

Eric Moore, Fire Chief
Alameda County Fire Department
6363 Clark Avenue
Dublin, California 94568

Re: Notice of Intent to Adopt a Mitigated Negative Declaration for the Alameda County Fire Station 22 Replacement Project, San Lorenzo

Dear Eric Moore:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Initial Study/Mitigated Negative Declaration (IS/MND) for the Alameda County Fire Station 22 Replacement Project located in the City of San Lorenzo in unincorporated Alameda County (County). EBMUD has the following comments. 1.1

WATER SERVICE

EBMUD's Central Pressure Zone, with a service elevation range between 0 and 100 feet, will serve the proposed development. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the proposed development. Engineering and installation of water services require substantial lead time, which should be provided for in the Alameda County Fire District's development schedule. 1.2

EBMUD's Standard Site Assessment Report and the project's IS/MND indicate the potential for contaminated soils or groundwater to be present within the project site boundaries. The Alameda County Fire District should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The Alameda County Fire District must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete, and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater. 1.3

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until 1.4

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remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the Alameda County Fire Department is insufficient, EBMUD may require the Alameda County Fire District to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation. Alternatively, EBMUD may perform such sampling and analysis at the Alameda County Fire Department's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

1.4

WATER CONSERVATION

The project presents an opportunity to incorporate water conservation measures. EBMUD requests that the Alameda County Fire District include in its conditions of approval a requirement that the Alameda County Fire Department comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The Alameda County Fire District should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the Alameda County Fire Department's expense.

1.5

If you have any questions concerning this response, please contact Sandra Mulhauser, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-7032.

1.6

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:AIT:kn
wdpd25_126 Alameda County Fire Station 22 Replacement Project.doc

Responses to Letter 1

Response 1.1
The comment provides an introduction to the letter. No response is required.

Response 1.2
The comment describes which EBMUD pressure zone Fire Station 22 would be located in. The comment states that the applicant must contact EBMUD's New Business Office as well as provide sufficient time to allow for engineering and installation of water services.

The comment does not relate to environmental impacts under CEQA. The comment is noted.

Response 1.3
The comment states that EBMUD will not install piping or services in contaminated soil or groundwater that may be hazardous. EBMUD states that the applicant shall submit a remediation plan as well as all known information regarding soil and groundwater quality within the proposed project sites. It is noted that ACFD must submit all known information about soil and groundwater quality to EBMUD. As discussed in the IS/MND, ACEHD is providing regulatory oversight over the hazardous materials investigations and cleanup of hazardous materials at the Fire Station 22 project site under a Voluntary Remedial Action Agreement between ACEDH and ACFD. ACFD, as required by ACEHD, will prepare a Soil and/or Groundwater Remedial Action Plan to address contamination issues at the project site.

Response 1.4
The comment states that EBMUD would require soil and groundwater quality data and remediation plans to begin design and installation of piping. EBMUD's comment also states additional soil and groundwater sampling and analysis may be required for the proposed project sites.

The applicant shall coordinate with EBMUD to ensure that all pertinent information regarding soil and groundwater quality and any required remediation plans in compliance with state and federal laws are submitted in a timely manner. If additional sampling is required, the applicant would comply with this request.

Response 1.5
The comment states EBMUD's request for the applicant to comply with Assembly Bill 325, which relates to water efficiency in landscaping, as a condition of approval for the proposed project. Additionally, the comment also shares EBMUD's Water Service Regulations standards.

The applicant shall comply with AB 325 and install water efficient measures required by regulation.

Response 1.6
This comment provides a conclusionary statement for the letter and provides the contact information for the commenter. No response is needed.

Revisions to the Draft IS/MND

Summary of AB 52 Consultation Subsequent to Publication of the Draft IS/MND

As described in the Draft IS/MND, the Native American Heritage Commission (NAHC) was contacted to provide a list of Native American tribes affiliated with the project region, in order for ACFD to complete consultation with Native American tribes under AB 52. The Lisjan Nation requested consultation under AB 52, and a summary of consultation is provided in the Final IS/MND. Subsequent to publication of the Draft IS/MND, the Lisjan Nation provided comments on Mitigation Measure CUL-2: Cultural Resources Monitoring in an email to Archaeological/Historical Consultants, a consultant to ACFD. The Lisjan Nation requested that data recovery not be included as a treatment option for tribal cultural resources, as this treatment option has adverse effects on tribal cultural resources. The Lisjan Nation provided a list of more appropriate treatment options, which included, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, minimizing handling of the resource, returning cultural items to a location nearby where they will not be subject to future impacts, funding ongoing Tribal stewardship of the resource, and/or consulting with the Tribe to implement appropriate ecological restoration in the area of the resource.

ACFD had a meeting with the Lisjan Nation on September 5, 2025 to discuss ACFD's revisions to Mitigation Measure CUL-2, per the comments described above. The Lisjan Nation approved the proposed revisions during the meeting and provided additional revisions to Mitigation Measure CUL-1, Mitigation Measure CUL-2, and Mitigation Measure CUL-3, via email on September 9. 2025. ACFD accepted these revisions and made additional minor clarifications to the mitigation measures, which Lisjan Nation accepted via an email confirmation on September 17, 2025. Because Lisjan Nation has agreed to the mitigation measure, ACFD has concluded AB 52 consultation for the project.

Revisions to IS/MND

Revisions have been made to the Cultural Resources and Tribal Cultural Resources sections of the Draft IS/MND to reflect the revisions to Mitigation Measure CUL-1, Mitigation Measure CUL-2, and Mitigation Measure CUL-3, as described above. These revisions are shown in the Final MND in strikethrough text for text that is deleted and underlined text for new text.

Summary and Conclusion

This document includes comments received by the Alameda County Fire Department during the public review period for the IS/MND for the Alameda County Fire Station 22 Replacement Project, and responses to those comments. This document also includes a description of AB 52 consultation with the Lisjan Tribe, subsequent to publication of the Draft IS/MND. There have been no changes to the Project or changed circumstances under which the Project would be undertaken requiring further analysis under CEQA. None of the circumstances described in State CEQA Guidelines § 15073.5(b) have occurred, meaning recirculation of the IS/MND is not required.

The conclusion of the IS/MND remains unchanged: the Project, with the incorporation of mitigation measures identified in the IS/MND, would have only less-than-significant environmental impacts. None of the comments provides substantial evidence to support a fair argument that the Project would have a significant effect on the environment. Therefore, per State CEQA Guidelines § 15064(f)(1), an Environmental Impact Report (EIR) is not required.

FINAL MITIGATION MEASURES

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
Air Quality			
Mitigation Measure AQ-1: Fugitive Dust Control The contractor shall implement the following fugitive dust control measures during construction: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph. • All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel. • A publicly visible sign shall be posted with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD phone number shall also be visible to ensure compliance with applicable regulations	Construction	Verify fugitive dust control measures are implemented during all ground disturbing activities.	Contractor

FINAL MITIGATION MEASURES

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
Biological Resources			
Mitigation Measure BIO-1: Nesting Bird Surveys A preconstruction survey shall be performed at Fire Stations 22 prior to construction. The following measures shall be implemented: • If use of heavy equipment, grading, demolition, construction, and/or tree removal are scheduled to occur during the nonbreeding season (September 1 through February 15), no measures are required. • If construction activities occur during the nesting season, a pre-construction survey for active bird nests in the project site shall be conducted on the project site and within 500 feet of the project site by a qualified biologist – If no nesting or breeding behavior is observed, construction may proceed. – If an active nest is detected, a determination shall be made by a qualified biologist as to whether construction work could affect the active nest. If it is determined that construction would not affect an active nest, work may proceed. If it is determined that construction activities are likely to impair the successful rearing of the young, a "no-disturbance buffer" in the form of orange mesh Environmentally Sensitive Area (ESA) fencing shall be established around occupied nests to prevent destruction of the nest and to prevent disruption of breeding or rearing behavior. The extent of the "no-disturbance buffer" shall be no less than 300 feet (500 feet for raptors), a smaller buffer may be determined by a qualified biologist in consultation with CDFW. "No-disturbance buffers" shall be maintained until the end of the breeding season or until a qualified wildlife biologist has determined that the nestlings have fledged. A qualified wildlife biologist shall inspect the active nest to determine whether construction activities are	Prior to construction	• Verify construction starts outside the nesting season or a pre-construction survey is conducted prior to tree removal.	• Qualified biologist
	During construction	• If a nest is observed in the trees for removal, verify that the tree is not removed until the nest is no longer active. • If active nests are observed adjacent to construction, verify active nest buffers are maintained until the end of the breeding season or until nestlings have fledged	• Qualified biologist

FINAL MITIGATION MEASURES

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
disturbing to the nesting birds or nestlings. If the qualified wildlife biologist determines that construction activities pose a disturbance to nesting, construction work shall be stopped in the area of the nest and the "no-disturbance buffer" expanded.			
Cultural Resources			
Mitigation Measure CUL-1: Tribal Cultural Resources Sensitivity Training ACFD shall retain the services of a Native American representative from a consulting tribe(s) traditionally and culturally affiliated with the project area and a qualified archaeologist to provide cultural sensitivity and archaeological awareness training to all work crews who will be involved in ground disturbing activities at the project site. The training shall inform all project contractors, subcontractors and work crew members to be on the alert for evidence of the presence of potential archaeological or tribal cultural resource(s), of how to identify the evidence of such a resource(s), and of stop work, resource protection, and notification requirements in the event of unanticipated discovery.	Prior to construction	• Conduct tribal cultural resources sensitivity training	• Contractor • Qualified archaeologist • Native American representative
Mitigation Measure CUL-2: Cultural Resources Monitoring Archaeological Monitoring Plan A qualified archeologist and a Native American representative from a consulting tribe(s) traditionally and culturally affiliated with the project area shall be on site to monitor all ground disturbing construction activities. Before beginning construction, the qualified archeologist shall prepare an archaeological monitoring plan, in consultation with the Native American monitor, for approval by the County. If evidence of any subsurface archaeological features or deposits is discovered during construction-related earth-moving activities, all ground-	Prior to construction	• Prepare an Archaeological Monitoring Plan	• Qualified archaeologist • Native American representative
	During construction	• Conduct archaeological monitoring during ground disturbing activities • Document any occurrence of archaeological deposits and verify that proper buffer distances are implemented in the event of a find. • Prepare a mitigation plan that outlines the appropriate treatment of any	• Contractor • Qualified archaeologist • Native American representative

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
disturbing activity in the area of the discovery shall be halted within 50 feet of the find, and the finds shall be protected until they are examined by a qualified archaeologist and Native American representative and evaluated for listing in the CRHR and NRHP. Monitoring may be reduced or halted at the discretion of the archaeologist and tribal monitor, in consultation with the lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 50 percent of the entire area of ground disturbance. If monitoring is reduced to spot checking, spot checking shall occur when ground disturbing activities move to a new location within the project site and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock). **Discovery and Treatment**. If archaeological deposits are found, the qualified archaeologist shall assess the significance of the find and make recommendations for further evaluation and treatment as necessary. The Native American monitor shall also assess the find if the artifacts are of Native American origin. The qualified archaeologist shall stake the area of discovery, placing stakes no more than 10 feet apart, forming a circle having a radius of no less than 50 feet from the point of discovery. If, after evaluation, a resource is determined to be a historical resource or unique archaeological resource (as defined in PRC section 21083.2 and CEQA Guidelines section 15064.5) or a tribal cultural resource (as defined in PRC section 21074), all preservation options shall be considered as required by CEQA (see CEQA Guidelines section 15126.4 and PRC 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource, and a mitigation plan shall be prepared. The mitigation plan shall be implemented by ACFD in accordance with state guidelines and in consultation with the consulting Native American tribe(s). The mitigation plan shall include avoidance of the resource or, if avoidance of the resource is not feasible, the plan shall outline		unanticipated discoveries.	
	Following construction	• Provide a report of results of identification, evaluation, and/or data recovery program for any unanticipated discoveries.	• Qualified archaeologist, in consultation with Native American representative if the found artifacts are of Native American ancestry

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
appropriate treatment of the resource in coordination with the consulting Native American tribe(s) and, if applicable, a qualified archeologist. Examples of appropriate treatment for the resource may include, but are not limited to, protecting the cultural character and integrity of the resources, protecting traditional use of the resources, protecting the confidentiality of the resources, data recovery excavations, or development of an interpretive program. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring and reburial of cultural objects or cultural soil where they will not be subject to future ground disturbance. Work in the area may resume upon completion of treatment. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public except for information deemed confidential and protected under state law.			
Mitigation Measure CUL-3: Impact to Previously Undiscovered Human Remains If human remains are encountered during construction and ground disturbing activities, all work within 50 feet of the remains should be redirected and the County Coroner notified immediately. At the same time, a qualified archaeologist shall be contacted to complete an assessment of the find. If the human remains are of Native American origin, the Coroner must notify	During construction	• Contact the County Coroner if human remains are encountered. • County Coroner to notify the NAHC if the remains are of Native American origin. • Qualified archaeologist to complete an assessment of the remains.	• County Coroner • Qualified archaeologist • Contractor • Native American representative

FINAL MITIGATION MEASURES

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
the NAHC within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated funerary objects. Once it is determined that the human remains are of Native American origin, no photographs shall be taken or testing done on Native American human remains, unless specifically requested by the MLD. The qualified archaeologist shall recover scientifically valuable information, as appropriate, and in accordance with the agreement between the MLD and the ACFD. Upon completion of the archaeologist's assessment, a report should be prepared documenting methods and results of the assessment of the human remains, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the County, ACFD, the NWIC, and the MLD. Reburial of the Native American human remains and associated funerary objects will be agreed upon between the MLD and ACFD. The discovery and reburial shall be kept confidential and secure to prevent any further disturbance.	Following construction	• Prepare a report documenting the assessment of human remains and recommendations for treatment of human remains	• Qualified archaeologist • MLD • ACFD
Noise			
Mitigation Measure NOI-1: Construction Noise Management Plan During construction the following noise reduction measures shall be implemented: • The contractor shall properly muffle and maintain all construction equipment powered by internal combustion engines. • Idling of combustion engines shall be limited to a maximum of 5 minutes. • All stationary noise-generating construction equipment, such as air compressors, shall be located as far as practical from	During construction	• Verify all construction equipment has mufflers and all stationary construction equipment shall be acoustically shielded. • Verify noise barrier is properly installed close to construction equipment. • Document notification to schools and residences 14 days in advance of construction. • Document any disturbance complaints and resolution.	• ACFD • Contractor • Noise disturbance coordinator

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
existing nearby residences. To the extent feasible, such equipment shall also be acoustically shielded with partial enclosures or temporary noise barriers. • Quiet construction equipment, particularly air compressors, shall be selected whenever possible. Fit motorized equipment with proper mufflers in good working order. • Temporary noise barriers (minimum 8 feet in height) shall be constructed or used along the project northern perimeter to shield construction and demolition noise from noise-sensitive receptors to the extent feasible. Examples of barriers include solid plywood construction barrier and/or construction noise barrier blankets on temporary fencing. These noise barriers shall be installed without cracks or gaps in the face or large or continuous gaps at the base. The materials used to construct the noise barrier shall have a minimum surface weight of 2.5 lb./sq. ft., such as 3/4" plywood panels. Construction noise barrier blankets shall have a minimum Sound Transmission Class (STC) rating of 25. Temporary noise barriers shall be in place during demolition, site preparation, and grading phases of construction. Temporary noise barriers are not required during the building construction phase. • Residences adjacent to project sites shall be notified 14 days in advance of construction. The notification shall include information regarding construction schedule and contact information for a noise a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. • The contractor shall designate a "noise disturbance coordinator" responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint (e.g., starting too early, bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem.			

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
A telephone number for the noise disturbance coordinator shall be posted at the construction site.			
Mitigation Measure NOI-2: Fixed Mechanical Equipment Noise Control for Building Operation The following noise reduction measures shall be implemented to reduce potential HVAC noise impacts at the nearby noise-sensitive receptors: • Enclosing noise-generating mechanical equipment, if feasible • Installing relatively quiet models of air handlers, exhaust fans, and other mechanical equipment • Using mufflers or silencers on equipment exhaust fans, if feasible • Orienting or shielding equipment to protect noise-sensitive receptors to the extent feasible • Increasing the distance between noise-generating equipment and noise-sensitive receptors • Placing barriers around the equipment to facilitate the attenuation of noise	During construction During operation	• Verify sound reducing equipment for the HVAC is included in the final design/plans. • Verify HVAC noise reduction measures have been properly installed per the measures and approved plans.	• Contractor • ACFD
Transportation			
Mitigation Measure TRAN-1: Transportation Management Plan The Project shall prepare and implement a Transportation Management Plan as detailed below: • The Transportation Management Plan shall be prepared in accordance with California Manual on Uniform Traffic Control to protect walking and cycling conditions surrounding the project site • The Plan shall adhere to the complete streets guidance presented in Caltrans DIB-94 by providing a buffer between truck traffic and other roadway users.	Prior to construction During construction	• Verify Transportation Management Plan meets the measure requirements. • Verify traffic controls are implemented per the approved Transportation Management Plan.	• Contractor

FINAL MITIGATION MEASURES

Mitigation Measure	Timing	Monitoring/Reporting Requirements	Responsible and Involved Parties
• The Plan shall include use of flaggers and signage where appropriate to redirect direct pedestrians around sidewalk closures and prevent conflicts with construction traffic. • The Plan shall include use of signage and barriers to separate pedestrians from construction activities. • The Plan shall require advanced notice through posting of signs at least one week prior to sidewalk closures			
Tribal Cultural Resources			
Mitigation Measure CUL-1: Tribal Cultural Resources Sensitivity Training:	See above	See above	See Above
Mitigation Measure CUL-2: Cultural Resources Monitoring	See above	See above	See Above
Mitigation Measure CUL-3: Impact to Previously Undiscovered Human Remains	See above	See above	See Above