INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

COLLEGE OF ALAMEDA
TRANSPORTATION TECHNOLOGY CENTER

Prepared for

Peralta Community College District

September 2020

Prepared by

Amy O. Skewes-Cox, AICP
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In conjunction with

BASELINE ENVIRONMENTAL CONSULTING
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NATALIE MACRIS
PARISI TRANSPORTATION CONSULTING
TOM CAMARA GRAPHICS
WORDSMITH WORD PROCESSING

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PROJECT DESCRIPTION

1. **Project Title:** College of Alameda Transportation Technology Center

2. **Lead Agency Name and Address:**
   Peralta Community College District
   333 East Eighth Street
   Oakland, CA 94606

3. **Contact Person and Phone Number:** Ms. Atheria Smith (510-587-7864)

4. **Project Location:**
   555 Ralph Appezzato Memorial Parkway
   Alameda, CA 94501
   Assessor Parcel No. 74-1364-3-2

5. **Project Sponsor's Name and Address:**
   Peralta Community College District
   333 East Eighth Street
   Oakland, CA 94606

6. **General Plan Designation:** Public/Institutional/Schools

7. **Zoning:** R-4, Neighborhood Residential

8. **Description of Project:**

The Peralta Community College District is proposing the construction of a replacement Transportation Technology Center (the project) in a portion of the College of Alameda campus just south and immediately adjacent to Building B (see **Figures 1** and **2)**. The 61-acre campus faces 555 Ralph Appezzato Memorial Parkway (commonly referred to as Atlantic Avenue) in Alameda, with a significant frontage on Webster Street near the Webster Street Tube.

The project is intended to replace Buildings B and E, aging instructional facilities located just north of Atlantic Avenue in the southwest part of the campus (Building B) and along Webster Street in the northeast part of campus (Building E). Both buildings would be demolished as a result of the project. A total of approximately 36,773 assignable square feet (ASF) of new space would replace the existing 33,127 ASF of Buildings B and E, which are currently used for transportation technology, for a net gain of 3,646 square feet on the campus. An internal roadway (College Way) would also be removed, and a fire lane/pedestrian promenade would be constructed along the north side of the proposed building.

The project would serve existing programs and is not expected to result in an increase in the number of students or faculty. The College currently has 3,094 full-time equivalent (FTE) students and 244 faculty/staff. In Academic Year 2019-2020, the College served a total of 10,756 students.[1]

[1] The FTE number aggregates the students served into full-time status; for example, two part-time students are counted together so they represent one FTE student. The total number of students served represents the actual number of students on the campus over the course of the academic year.

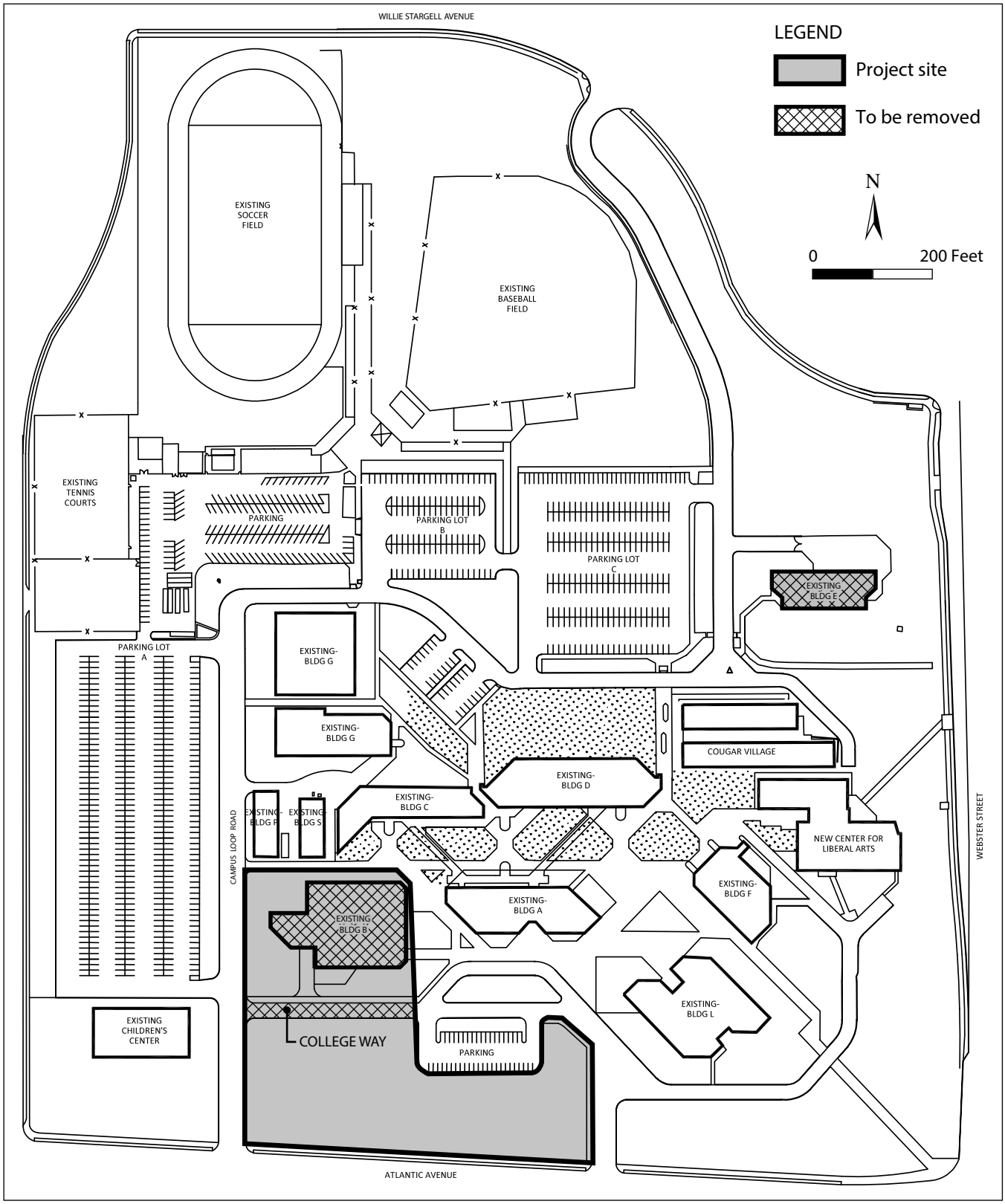


Figure 1

PROJECT LOCATION

SOURCE: Noll & Tam Architects, 2017

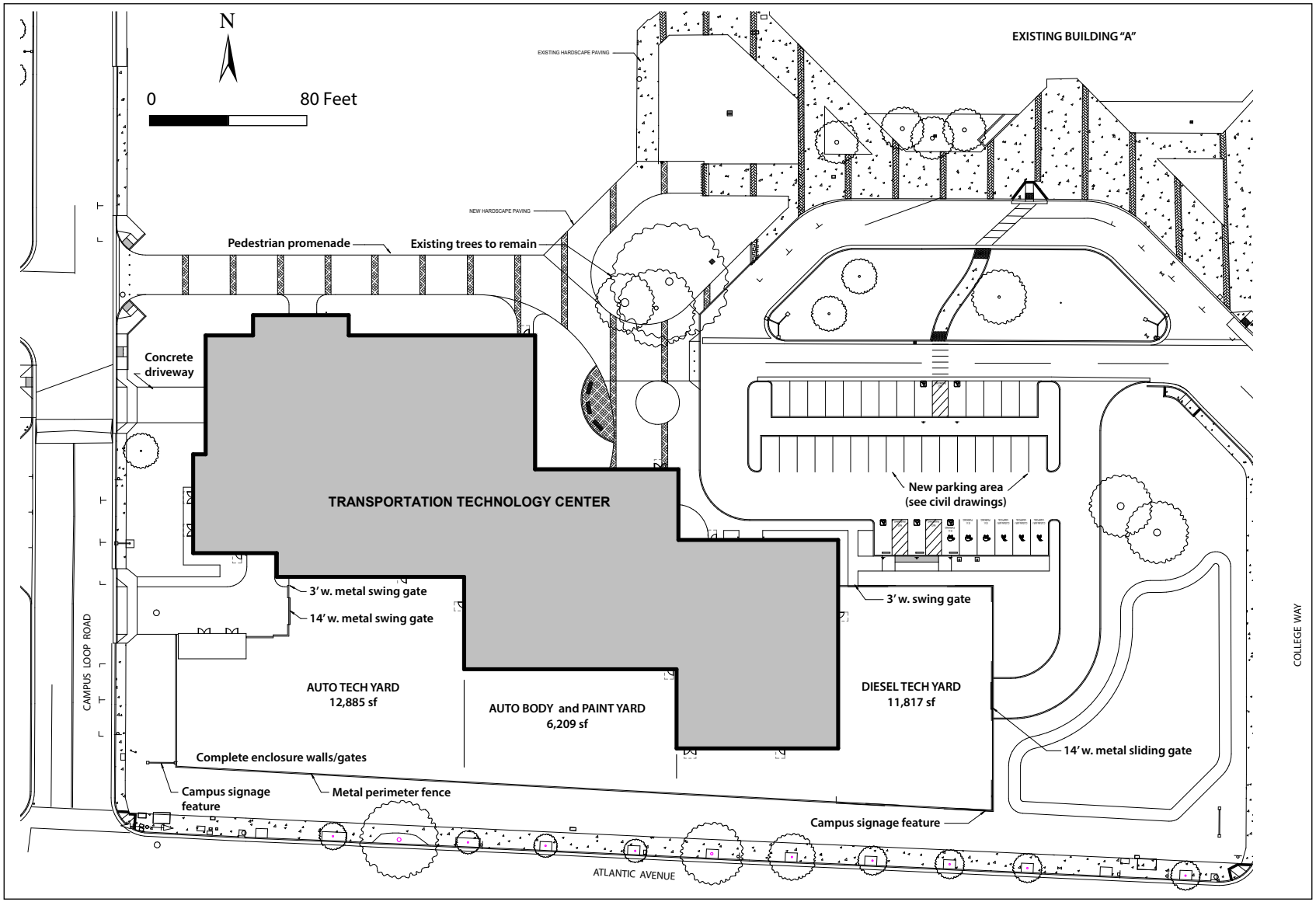


Figure 2

SOURCE: JK Architecture and Engineering, 2020

PROPOSED SITE PLAN

Background on Existing Buildings and Programs

Building B was constructed in 1968 and consists of 24,815 ASF (30,176 gross square feet) currently serving the Automotive Technology program. Building E was constructed in 1989 and consists of 8,312 ASF (11,850 gross square feet).

Before Building E was constructed, Building B housed Automotive Technology, Auto Body & Paint, and Diesel & Truck Mechanics. Approximately 87 percent of the space in Building B is dedicated to Laboratory and Lab Service space for the instructional program. However, advances in technology such as alternative fuels (fuel cells, hybrids, etc.) have resulted in new methods of teaching, resulting in the need for space reconfiguration. The Automotive Technology program for the Peralta Community College District is offered only at the College of Alameda and is the third largest program on campus (after Math and English).

Building E currently provides space for the Diesel & Truck Mechanics program. However, new technologies have also resulted in space change needs similar to those for the Automotive Technology program. Updates are needed to incorporate established partnerships with the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA), where training courses are offered in accordance with the California Council on Diesel Education and Technology (CCDET). Within the Peralta Community College District, the Diesel & Truck Mechanics program is offered only at College of Alameda.

College of Alameda is one of six campuses in California to host a Toyota T-TEN program and the only campus in the Bay Area to host this program. The program draws students for competitive job training, expert hands-on experience, internships, and entry-level job placement at Toyota- and Lexus-authorized repair centers. However, existing Building B does not meet Toyota T-TEN standards.

Air and water quality health concerns exist at both Buildings B and E. Needed improvements include, for example, designated workstations with vacuum systems for collecting dust from sanding car frames. At both buildings, parking lot drainage creates water quality problems; the presence of gas, oil, antifreeze, and soap in runoff has the potential to damage San Francisco Bay. A designated wash area with a runoff collection system is needed.

Proposed Building Siting, Height, and Uses

The proposed building would be located at an important entry to the campus and would provide new landscaping and redesigned building footprints. The building would be located just south of existing Building B (see Figures 1 and 2).

The Transportation Technology Center would be a one-story building with two primary heights: 18 feet for classroom areas and 25 feet for the three instructional vehicle labs. The entries would have articulated metal panels that rise to a height of 30 feet. The building would house laboratory spaces (including a paint/auto body lab), teaching spaces (both for occupancy counts of greater than

50 persons and less than 50 persons), utility rooms, offices, tool rooms, mezzanine storage, a library/media room, and restrooms. The breakdown of building square footages is shown in **Table 1**.

TABLE 1 PROPOSED BUILDING SQUARE FOOTAGE (ASF)

Use	Size (SF)
Teaching space with occupancy count equal to or greater than 50	24,374
Teaching space with occupancy count less than 50	6,494
Utility rooms	5,905
Total	**36,773**

Note: ASF = assignable square feet; SF = square feet
Source: JK Architecture Engineering, 2020.

Proposed Access, Yards, and Parking

Access to the proposed building would be primarily from Atlantic Avenue and Campus Loop Road. Internal campus roads would provide emergency vehicle access to all sides of the building.

An internal roadway (College Way) would be demolished to allow construction of the project. A new pedestrian promenade that would serve as a fire lane would be constructed along the north side of the proposed building. This new road would provide access from the existing internal roadway to Campus Loop Road. The new road would be approximately 24 feet wide and approximately 300 feet long.

Metal perimeter fencing would be provided on the south side of the building where an Automotive Technology Yard (12,885 square feet), an Auto Body & Paint Yard (6,209 square feet), and a Diesel Technology Yard (11,817 square feet) would be enclosed (see Figure 2). Metal sliding gates would allow vehicular access to these yards. Vehicle access to the inside of the building for automobiles and trucks used in the teaching labs would primarily be located along the south façade. Those entry points would connect the interior space to the external yards.

A pedestrian promenade would be constructed on the north side of the building, with access from Campus Loop Road (see Figure 2). The main pedestrian access to the building would be through doors located on the building's north side (connecting to the rest of campus) and south side (connecting to the external yards).

A total of five accessible parking spaces would be provided on the north side of the building, along with three electric vehicle spaces, three clean air/vanpool spaces, and 24 auto vehicle spaces (see Figure 2). The project would also provide secure bicycle storage for two bicycles and a total of four two-bicycle capacity racks.

Proposed Architectural Features

The exterior of the new building would be composed of a steel canopy frame, with flush metal wall panels. Glazed panel doorways for vehicular and pedestrian access would provide a design "accent" to the overall color pallet. The color scheme would be muted variations of an earth-toned concrete masonry, complemented by grey/blue metal panels. Areas of glazing would include burgundy metallic edges. Areas of painted blue panels would provide architectural accents for the external walls (see **Figures 3** and **4**, which show proposed building elevations). The parapet coping would be constructed of a naturally colored galvanized sheet metal. Roofs would be flat and skylights would be included in all buildings. Storefront glazing systems would be thermally broken double-glazed systems, which are more energy-efficient than single-paned glass.

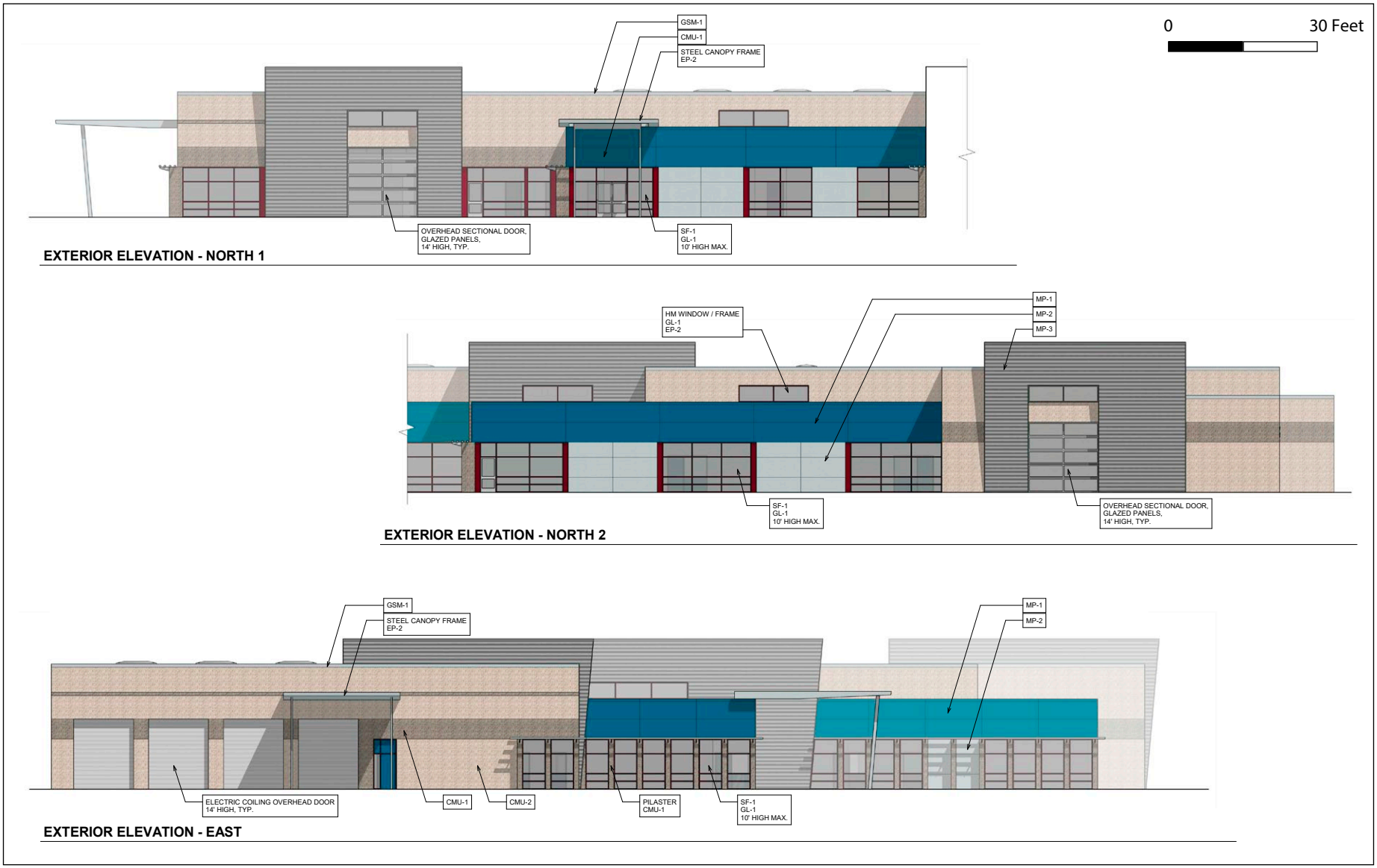


Figure 3

SOURCE: JK Architecture and Engineering, 2020

NORTH AND EAST ELEVATIONS

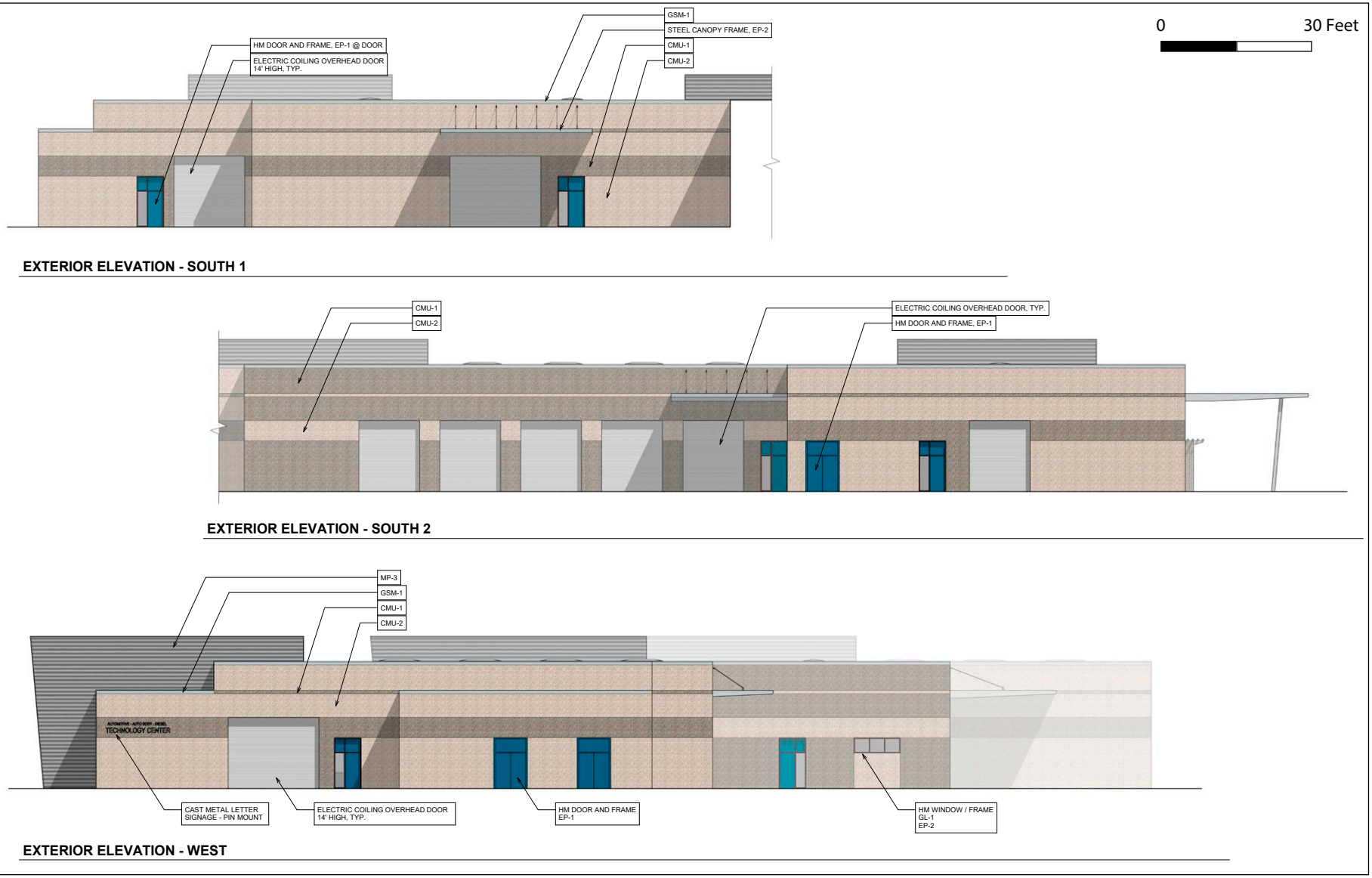


Figure 4

SOURCE: JK Architecture and Engineering, 2020

SOUITH AND WEST ELEVATIONS

Hours of Operation

The project would not affect campus hours of operation. The College offers classes from 8:00 AM to 10:00 PM, Monday through Friday. Some courses include weekend hours.

Relationship to Facilities Master Plan

The Peralta Community College District commissioned a district-wide Facilities Master Plan update that was completed and approved by the Board of Trustees in 2018. Over time, as the District implements its Facilities Master Plan, older buildings will be demolished to make space for future replacement buildings.

At the time the Facilities Master Plan update was approved, the District proposed to demolish existing Buildings B and E and to build replacement buildings in the same location as Building B. Though the Facilities Master Plan considered alternative sites, in the end the State Capital Outlay Plan was followed, and state funding is contingent upon constructing the new project immediately adjacent to the existing Building B. Thus, the project evaluated in this Initial Study/Mitigated Negative Declaration (IS/MND) would be located just south of Building B, which would be demolished after project construction. Building E would also be demolished after the project is completed and Building E is vacated.

Though plans are not finalized, a future performing arts center is contemplated to take the place of Building E. Given that plans for this replacement building are not finalized, this IS/MND does not include analysis of a new building in the footprint of Building E. Plans for the performing arts center would be subject to separate environmental review as necessary.

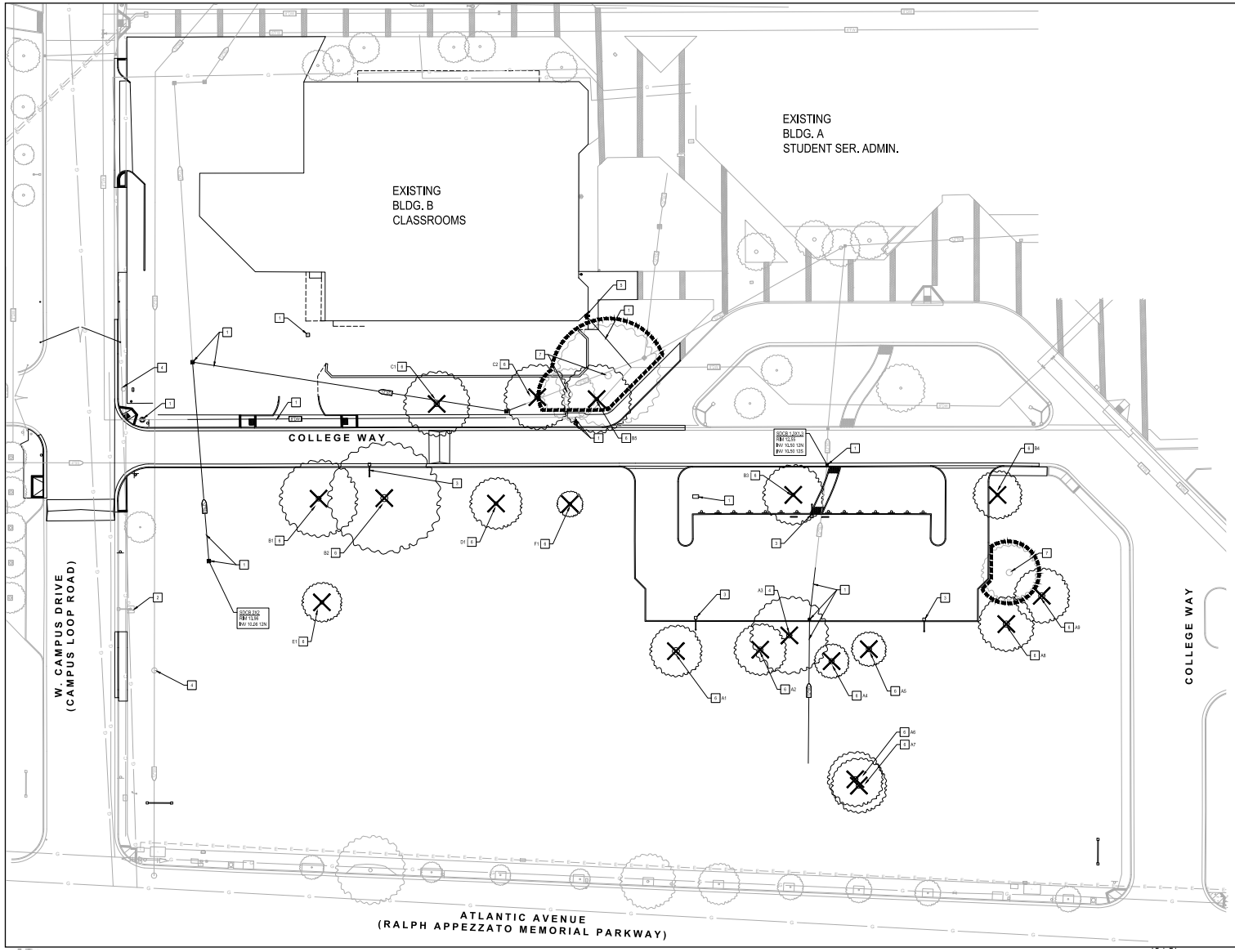
Tree Removal, Landscaping, and Storm Drainage

A total of 19 mature existing trees would be removed for the project. These trees would consist of nine sequoias ranging from 36 to 48 inches diameter breast height (dbh), five cinnamomum ranging from 24 to 48 inches dbh, two melaleucas that are 36 inches dbh, one fraxinus (ash) that is 24 dbh, one olea that is 24 inches dbh, and one juniper that is 15 to 24 inches dbh. These trees are listed in **Table 2** and shown in **Figure 5**. None of the trees proposed to be removed are classified as "protected trees" by the City of Alameda (City of Alameda, 2019).

TABLE 2 TREES PROPOSED FOR REMOVAL

Tree Variety	Diameter Breast Height (Inches)	Canopy Diameter (Feet)
Sequoia ssp.	48	30
Sequoia ssp.	36	30
Sequoia ssp.	36	45
Sequoia ssp.	36	20
Sequoia ssp.	36	20
Sequoia ssp.	36	32
Sequoia ssp.	36	32
Sequoia ssp.	42	32
Sequoia ssp.	42	32
Cinnamomum ssp.	33	45
Cinnamomum ssp.	48	65
Cinnamomum ssp.	24	35
Cinnamomum ssp.	24	28
Cinnamomum ssp.	24	40
Melaleuca ssp.	36	38
Melaleuca ssp.	36	38
Fraxinus ssp.	24	30
Olea ssp.	24	23
Juniperus ssp.	24/15	15

Source: Siegfried, 2020.



LEGEND

Existing tree to remain and receive tree protect

Existing tree, including stump and roots, to be removed

TREE REMOVAL INVENTORY			
NUMBER	VARIETY	DBH (INCHES)	CANOPY (DIA. FT.)
A1	SEQUOIA SSP.	48	30
A2	SEQUOIA SSP.	36	30
A3	SEQUOIA SSP.	36	45
A4	SEQUOIA SSP.	36	20
A5	SEQUOIA SSP.	36	20
A6	SEQUOIA SSP.	36	32
A7	SEQUOIA SSP.	36	32
A8	SEQUOIA SSP.	42	32
A9	SEQUOIA SSP.	42	32
B1	CINNAMOMUM SSP.	33	45
B2	CINNAMOMUM SSP.	48	65
B3	CINNAMOMUM SSP.	24	35
B4	CINNAMOMUM SSP.	24	28
B5	CINNAMOMUM SSP.	24	40
C1	MELALUCA SSP.	36	38
C2	MELALUCA SSP.	36	38
D1	FRAXINUS SSP.	24	30
E1	OLEA SSP.	24	23
F1	JUNIPERUS SSP.	24 / 15	15
TOTAL	19 TREES TO BE REMOVED		

N

0 100 Feet

Figure 5

SOURCE: Siegfried, 2020

TREE REMOVAL PLAN

The proposed landscape plan is shown in **Figure 6**. Drought-tolerant evergreen and deciduous trees and shrubs, grasses, and groundcovers adapted to the local climate would serve as the foundation of the planting design. About 11 new trees would be planted along the Atlantic Avenue frontage; another nine trees would be planted along Campus Loop Road; and additional trees would be planted within parking areas and along College Way east of the proposed building (see Figure 6). The planting design would also screen undesirable sight lines but would not create unwanted hiding spaces. Additionally, planting requiring minimal maintenance and pruning would figure prominently in the landscape design. Trees would be placed to accentuate the outdoor spaces. Stormwater treatment zones would be landscaped with appropriately selected material, using gravel mulch in lieu of standard wood chips.

All plants within the landscape would be located within the appropriate hydrozone in relation to other plant material. The irrigation system would use a weather-based irrigation controller, and the design and equipment would promote water conservation that meets state model water-efficient landscape ordinance requirements. Landscape areas over 10 feet in dimension may use high-efficiency spray irrigation, while smaller zones and all trees would be irrigated with bubbler systems.

A bioretention basin would be located in the southeast corner of the site (see Figure 6), where wet and dry tolerant planting would be provided. Native hydroseeded grasses would be planted on the slopes of the basin and at the top of the basin. The bioretention basin is intended to hold up to approximately 0.05 acre-feet of runoff during an approximate 85th percentile storm event, when the new impervious surface at the site (24,810 net new square feet) is expected to increase runoff by 0.1 cubic foot per second (cfs).

Lighting

Lighting would include fixtures required to illuminate new circulation paths. Lighting would also include landscape lighting and fixtures to highlight exterior building features. Building-mounted light fixtures would highlight entrances. Wall-mounted light fixtures would also be attached to the building façades to provide lighting for external courtyards and along walkways. All proposed lighting would be light-emitting diode (LED) and would be selected to meet Title 24 requirements. Light levels would be maintained at 1.0 footcandles for safety during hours of operation, and would be reduced to 0.5 footcandles for security later at night. Fixtures selected for pathway lighting would use light sources that provide high Color Rendering Index (CRI) and distribute light that illuminates the vertical plane for facial recognition.

Grading and Construction

Construction is expected to begin in August 2021 and to conclude in December 2022. The total construction period is estimated to be about 16 months.

Staging for construction equipment and construction worker vehicles would occur in various portions of the site as development proceeds in phases. Because access and laydown areas would be on-site, no rerouting of traffic on public streets would be anticipated to be required.

Very limited grading would be required. A total of 5,400 cubic yards (cy) is estimated to be cut material, and 5,400 cy are estimated to be fill, resulting in no net import or export of soil.

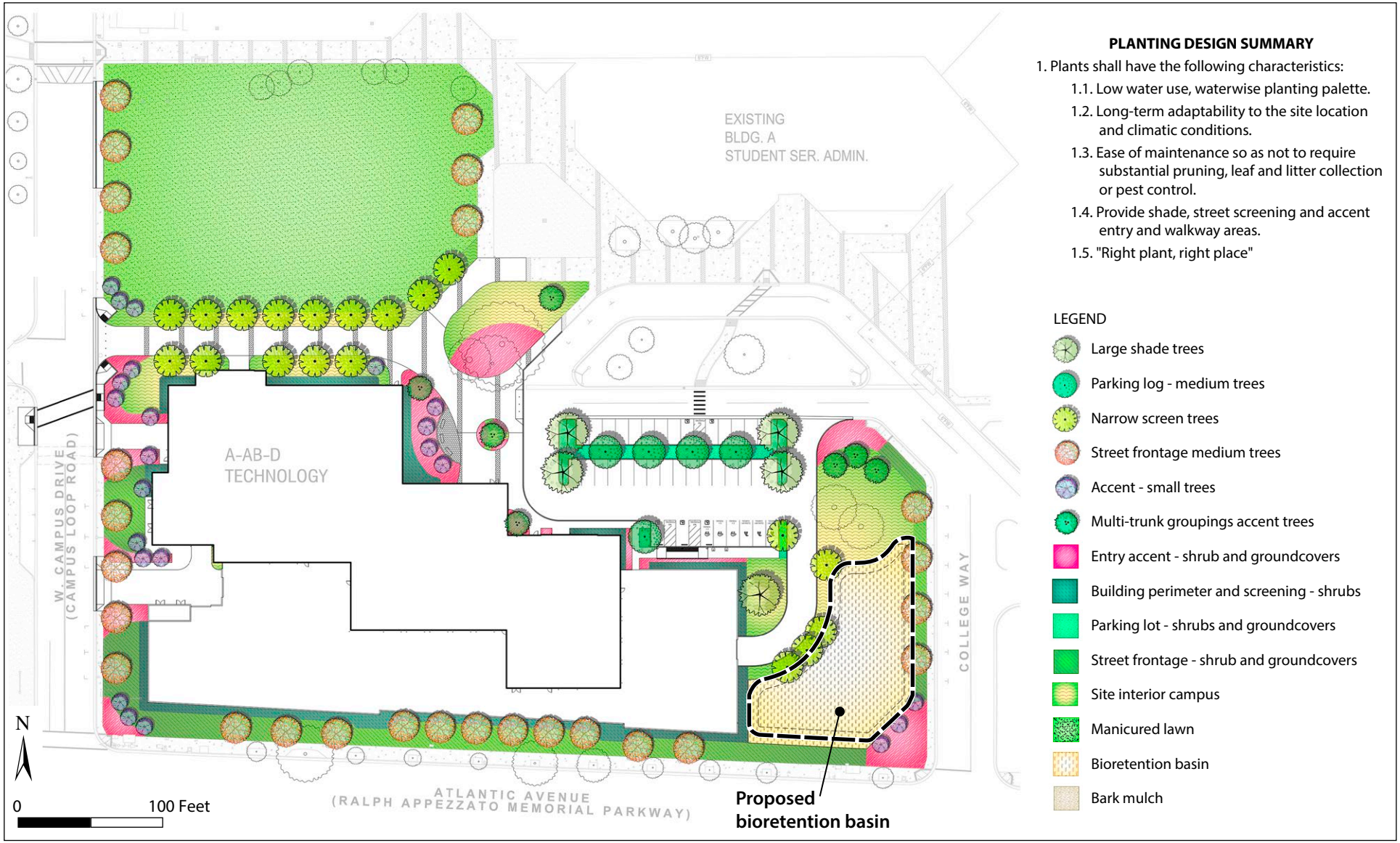


Figure 6

SOURCE: Robert Norbutas, Landscape Architect, 2020

PROPOSED LANDSCAPE PLAN

Demolition of Buildings B and E are estimated to result in off-haul of about 2,060 to 2,470 cy of demolition debris. Assuming 18 cy of debris material per truckload, approximately 114 to 137 trips would be associated with hauling debris material off the campus. These trips are expected to be undertaken in a period of 4 to 6 working weeks, with up to five trips per day for off-haul.

Up to 1,575 cy of concrete are expected to be delivered by a total of 175 trucks. During peak concrete pour events, a maximum of 55 truck trips per day, for a total of about five peak days over the course of the project, would be expected. During the entire 16-month construction period, about 10 delivery truck trips per day are expected (separate from off-haul and concrete trucks).

During construction, the entire site would be fenced and locked during non-construction hours. Construction hours would be as allowed by the City of Alameda. The City allows authorized construction activities, including warming-up or servicing of equipment and any preparation for construction, from 7:00 AM to 7:00 PM on weekdays and from 8:00 AM to 5:00 PM on Saturdays. No construction would be allowed on Sundays or official federal national holidays, except as otherwise authorized by the District.

Utilities, Drainage, and Energy-Saving Features

Energy-saving features are expected to include the following:

- Water-saving plumbing fixtures, at or above standards of the State of California Green Building Standards Code.
- Water-efficient irrigation systems, mandated by the Division of the State Architect.
- Indoor lighting systems to meet the minimum code efficiency requirements for Title-24 2016 (2016 California Building Code), e.g., LED lighting, occupancy sensors in offices, and daylight dimming controls at the perimeter zones.

The proposed building would require a new transformer and underground electrical infrastructure as well as underground telecommunications infrastructure on-site. Service to the new transformer may be provided via existing underground conduits beneath Webster Street.

Existing domestic and fire water lines would be rerouted around the building footprint, and new fire hydrants would be provided as required by the Alameda Fire Department. The new domestic water and fire water services for the building would be connected to these relocated lines. A new irrigation system would be located to the east of the proposed building, connecting to the existing domestic water line with a meter and backflow assembly.

The proposed building would connect to the campus gas main either to the north or west of the building, depending on the design size.

The new sanitary sewer service, including grease waste, would connect to an existing 12-inch sanitary sewer line that runs north-south along the west side of the proposed building.

There is an existing storm drain line to the northeast of the proposed building. An overflow structure in the proposed bioretention basin would capture stormwater flows that exceed an approximate 85th percentile storm event and would connect to the existing storm drain line.

9. Surrounding Land Uses and Setting:

The College of Alameda campus is surrounded by residential uses to the west, northwest, south, and southeast as shown in **Figure 7.** College uses surround the project site to the east, west, and north. Residential land uses are located to the south, on the south side of Atlantic Avenue.

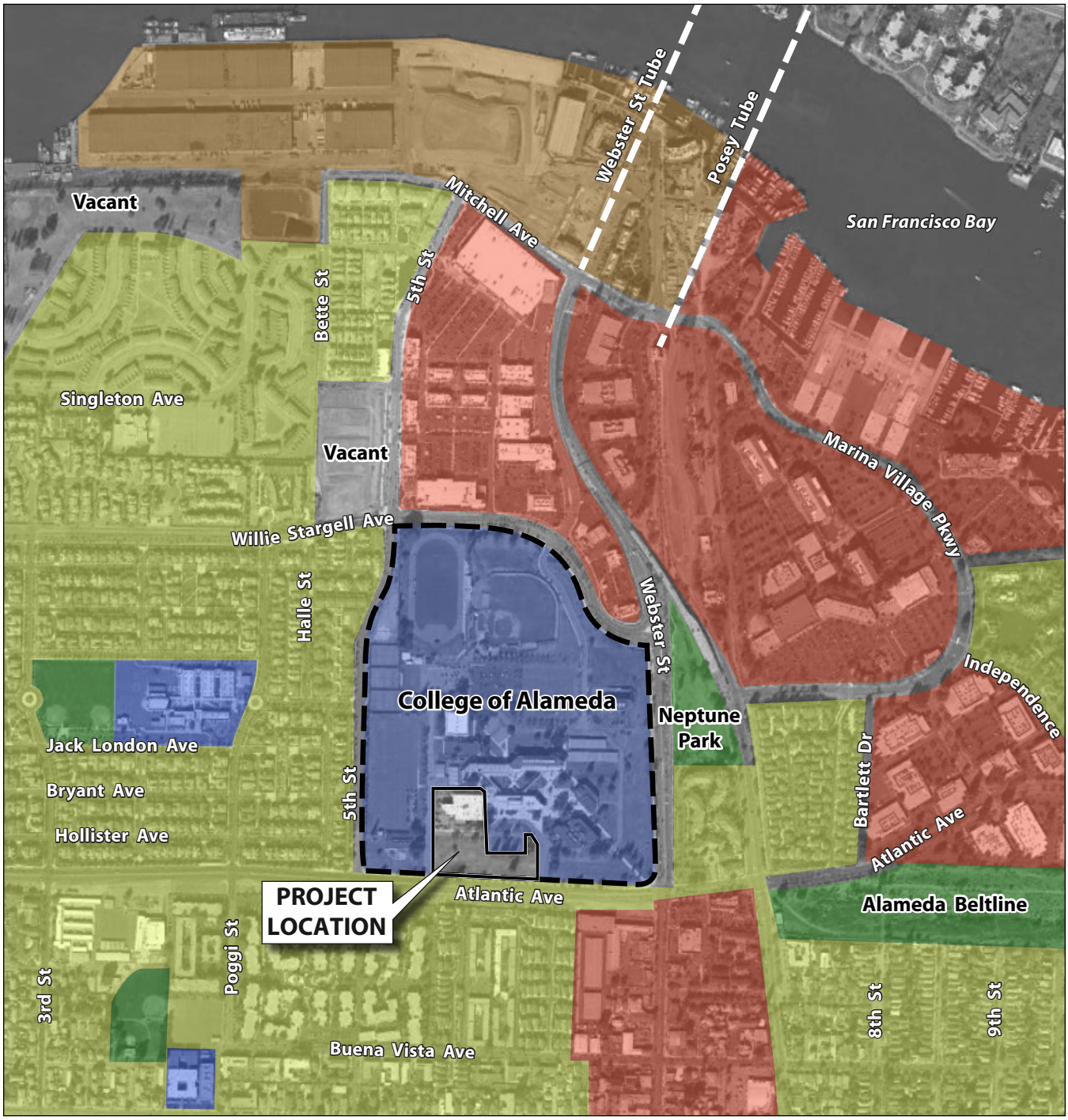
Industrial uses are located farther north, adjacent to San Francisco Bay, which separates the island of Alameda from Oakland to the north (see Figure 7).

10. Required Approvals:

The Peralta Community College District is the principal authority for the project. The District's Board of Trustees would be responsible for adopting the Mitigated Negative Declaration (MND) for the project.

The following additional agencies would be involved in discretionary approvals and permits for various project components:

- **The State Chancellor's Office** reviews all community college facilities projects and makes recommendations to the Board of Governors (BOG). The BOG then sets project priorities and submits a capital outlay request to the Department of Finance, the Governor, and the Legislature for state funding in the annual state budget.
- **The Department of Finance** provides fiscal and budget management for the Governor's executive branch of state government.
- **The Office of the Legislative Analyst** reviews the project budget as staff for the Legislature and advises them on budget requests for community college facilities projects.
- **The California Post-Secondary Education Commission (CPEC)** coordinates programs of higher education to ensure they conform to the State Plan for Higher Education. CPEC advises the Legislature regarding capital outlay for educational facilities.
- **The Division of State Architect (DSA**) reviews community college project designs to determine compliance with the California Building Code, fire safety, and Americans with Disabilities Act (ADA) requirements.
- **The State Fire Marshal's Office** has delegated fire code regulatory responsibilities for community college facilities to DSA.
- **The Regional Water Quality Control Board** oversees permitting for projects that could affect water quality. The project would be covered under the State National Pollutant Discharge Elimination System (NPDES) General Construction Permit, which is accomplished by filing a Notice of Intent (NOI) with the Regional Water Quality Control Board. A Storm Water Pollution Prevention Plan (SWPPP) may be required for the project.



LEGEND

- Residential
- Commercial/Office
- School
- Park/Open space
- Industrial

N

0 1000 Feet

Figure 7

SURROUNDING LAND USES

SOURCE: A. Skewes-Cox, 2017, and Google Earth, 2017

REFERENCES

City of Alameda, 2019. "Tree Removal: Frequently Asked Questions," revised June 26.

Project information as provided by Peralta Community College District and various consultants working for the District, 2020.

Siegfried Engineering, 2020. List of Trees to be Removed from Site.

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

Determination.

On the basis of this initial evaluation:

- ❒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ■ I find that although the proposed 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 proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ❒ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant 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 proposed 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 proposed project, nothing further is required.

Atheria Smith — Signature

September 2, 2020 — Date

Atheria Smith — Printed Name

For

CHAPTER II
ENVIRONMENTAL CHECKLIST

INTRODUCTION

The Checklist below addresses 20 environmental topics. Whenever a potential impact is identified, a mitigation measure is proposed. At the end of each numbered impact statement and mitigation measure, the level of significance of the impact before and after mitigation is shown as "Less than Significant" (LTS) or "Potentially Significant" (PS).[2]

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. 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?	❒	❒	■	❒

IMPACT EVALUATION

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact

The Transportation Technology Center would be constructed at the southwestern edge of the existing College of Alameda campus in an area that is currently occupied by Building B, an internal campus roadway (College Way), and grass-covered landscaping with a cluster of mature trees. The campus is located in an urbanized portion of the City of Alameda, and no scenic vistas would be substantially affected. **Figure 8** shows existing views of the project site from the west and the south. The new

[2] This Mitigated Negative Declaration (MND) includes a discussion of impacts of the environment on the project, which, pursuant to recent California Supreme Court authority, are not California Environmental Quality Act (CEQA) impacts. The District has included this discussion based on traditional checklist questions in order to be more thorough in the overall analyses.

a. View southeast to site from intersection of College Way and West Campus Drive (Campus Loop Road).

b. View west towards site from near Atlantic Avenue (left side of image) towards trees that would be removed for new construction.

c. View of Building B, looking northeast from College Way. This building would be demolished for new construction.

d. View northeast towards project site from sidewalk along Atlantic Avenue.

Figure 8

SOURCE: A. Skewes-Cox, 2020

Views of Site

building would expand the core developed portion of the campus, extending it approximately 160 feet farther south and closer to Atlantic Avenue. The terrain of the campus and surroundings is level, limiting views to the foreground where one can see existing campus buildings that are one- and two-story and adjacent residential buildings that are two stories or less in height.

For passing motorists, this part of the campus is primarily visible from Atlantic Avenue (Ralph Appezzato Memorial Parkway). The new Transportation Technology Center would form the prominent foreground element in the view from Atlantic Avenue. As shown in Figure 6, street frontage medium trees would be planted on the south side of the new building adjacent to Atlantic Avenue. Street frontage shrub and groundcovers would also be planted in this location. Shrubbery would also be planted at the external edge of the new fencing that would be located on the south side of the new building.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact

The College of Alameda campus is not visible from a State scenic highway. As mentioned above, the one main street from which the project site is visible is Atlantic Avenue (Ralph Appezzato Memorial Parkway), which borders the campus on the south. This street is not a scenic highway, and thus the project would not damage any scenic resources visible from a State scenic highway.

c) In non-urbanized areas, would the project 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?

Less Than Significant Impact

The project would not degrade the existing visual character or quality of the site, and would not conflict with applicable zoning and other regulations related to scenic quality. While existing mature trees would be removed (consisting of nine sequoias, five cinnamomum, two melaleucas, one ash, one olea, and one juniper), new trees and shrubbery would be added to the site (see Figure 6), and no other major scenic elements would be removed. A new building with a modern architectural style would be constructed in a level area of the campus now used as an internal roadway and a grass-covered area. As shown in Figures 3 and 4, the building's exterior materials would include a steel canopy frame with flush metal wall panels. Glazed panel doorways would allow vehicular and pedestrian access. The overall color palette would be earth tones with accents at doorways, framing and overhangs. Roof-mounted mechanical units would be screened from view.

New landscaping would be planted at the edge of the building as shown in Figure 6. This landscaping would include evergreen and ornamental trees, evergreen shrubs and grasses, and flowering groundcovers. About 12 new trees would be planted on the south side of the site visible from Atlantic Avenue. Another nine trees would be planted on the west edge of the site adjacent to West Campus

Drive. Additional trees would be planted within the site along internal circulation corridors and parking areas.

Trees would also be planted at the southeastern edge of the site surrounding an area that would be used as a bioretention basin to catch stormwater runoff (see Figure 6).

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

Less Than Significant Impact

New lighting would occur within the building and along paths that would serve the building. Internal building lighting would be limited in visibility due to the limited amount of glazing on the south and west sides (see Figure 4). Also, the south edges of the building would be partially screened from view by proposed trees (see Figure 6). Thus, building lighting would not create substantial light or glare for surrounding residential areas south of Atlantic Avenue.

Outdoor lighting would include fixtures required to illuminate new circulation paths. Lighting would also include landscape lighting and fixtures to highlight exterior building features. Building-mounted light fixtures would highlight entrances. Wall-mounted light fixtures would also be attached to the building façades to provide lighting for external courtyards and along walkways. All proposed lighting would be light-emitting diode (LED) and would be selected to meet Title 24 requirements. Light levels would be maintained at 1.0 footcandles for safety during hours of operation, and would be reduced to 0.5 footcandles for security later at night. Fixtures selected for pathway lighting would use light sources that provide high Color Rendering Index (CRI) and distribute light that illuminates the vertical plane for facial recognition. Thus, the proposed outdoor lighting would not create substantial light or glare at nearby residences.

REFERENCES

None.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL 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				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a 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 of Statewide Importance to non-agricultural use or conversion of forest land to non-forest use?	❒	❒	❒	■

IMPACT EVALUATION

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 a non-agricultural use?

No Impact

No farmland exists on the project site as mapped in the Farmland Mapping and Monitoring Program of the California Resources Agency. The site is part of an existing college campus in an urbanized area of the City of Alameda.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact

No Williamson Act contracts pertain to the project site and the site is not zoned for agricultural use. The site is zoned R-4, Neighborhood Residential, and is designated as “Public/Institutional/Schools” in the City of Alameda General Plan (City of Alameda, 2017).

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))?

No Impact

The site is not zoned as forest land or timberland. It is zoned as R-4, Neighborhood Residential (City of Alameda, 2016).[3]

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact

No forest land exists at the project site.

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?

No Impact

Refer to Items (a) though (d) above.

REFERENCES

California Department of Conservation, 2020. Farmland Mapping and Monitoring Program. Available at: https://maps.conservation.ca.gov/DLRP/CIFF/, accessed August 27, 2020.

City of Alameda, 2017. Website showing General Plan map. Available at: file:///C:/A_Jobs/A%20A%20Peralta%20College%202017/References%20for%20Admin%20Record/Land%20Use,%20Aesthetics,%20Minerals/generalplan_24x36_10_2016_high_res.pdf, accessed June 1, 2017.

City of Alameda, 2016. Zoning Map. Available at: https://alamedaca.gov/sites/default/files/document-files/department-files/Community-Development/zoning_map_edited_6_2016_resize_100dpi.pdf, accessed June 1, 2017.

[3] It should be noted that, for this project, the District plans to adopt a resolution pursuant to Government Code Section 53094 exempting the project and the campus from any zoning ordinances or regulations of the City of Alameda (where the project is located), including, without limitation, the City's Municipal Code, the City's General Plan, and related ordinances and regulations that otherwise would be applicable.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. 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?	❒	❒	■	❒

BACKGROUND

The project site is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). In the SFBAAB, the primary criteria air pollutants of concern are ground level ozone formed through reactions of nitrogen oxides (NO_x) and reactive organic gases (ROG), and suspended particulate matter (i.e., respirable particulate matter [PM_{10}] and fine particulate matter [$PM_{2.5}$]). The BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a) include thresholds of significance to assist lead agencies in evaluating and mitigating air quality impacts under CEQA. The BAAQMD's thresholds established levels at which emissions of ozone precursors (ROG and NO_x), PM_{10}, $PM_{2.5}$, carbon monoxide (CO), toxic air contaminants (TACs), and odors could cause significant air quality impacts. The scientific soundness of the thresholds is supported by substantial evidence presented in the BAAQMD's Revised Draft Options and Justification Report (BAAQMD, 2009). The BAAQMD's thresholds that relate to the analysis of the project's impacts on the environment are used in this CEQA analysis in conjunction with the BAAQMD's current CEQA Air Quality Guidelines (BAAQMD, 2017a). The thresholds of significance used in this CEQA analysis are summarized in **Table 3**.

TABLE 3 BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) PROJECT-LEVEL 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
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)	CO	9.0 ppm (8-hour average) 20.0 ppm (1-hour average)
	Exhaust $PM_{2.5}$ (project)	0.3 µg/m^3 (annual average)
	Exhaust $PM_{2.5}$ (cumulative)	0.8 µg/m^3 (annual average)
	TACs (project)	Cancer risk increase > 10 in 1 million Chronic hazard index > 1.0
	TACs (cumulative)	Cancer risk > 100 in 1 million Chronic hazard index > 10.0

Note: ROG = reactive organic gases; NO_x = nitrogen oxides; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; CO = carbon monoxide; TACs = toxic air contaminants; ppm = part per million; µg/m^3 = micrograms per cubic meter
Source: BAAQMD, 2017a.

IMPACT EVALUATION

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

Less Than Significant Impact

In accordance with the federal Clean Air Act and California Clean Air Act, the BAAQMD is required to prepare and update an air quality plan that outlines measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve federal and state ambient air quality standards. In April 2017, the BAAQMD adopted the 2017 Clean Air Plan: Spare the Air, Cool the Climate (2017 CAP), which includes 85 control measures to reduce ROG, NO_x, PM_{10}, $PM_{2.5}$, TACs, and greenhouse gases (GHGs). The 2017 CAP was developed based on a multi-pollutant evaluation method that incorporates well-established studies and methods on quantifying the health benefits of air quality regulations, computer modeling and analysis of existing air quality monitoring data and emission inventories, and growth projections prepared by the Metropolitan Transportation Commission and the Association of Bay Area Governments (BAAQMD, 2017b).

Based on the BAAQMD's current CEQA Air Quality Guidelines (BAAQMD, 2017a), the following criteria should be considered to determine if a project would conflict with or obstruct implementation of the 2017 CAP:

- Does the project include applicable control measures from the air quality plan?
- Does the project disrupt or hinder implementation of any air quality plan control measures?
- Does the project support the primary goals of the air quality plan?

The 2017 CAP includes control measures that aim to reduce air pollution and GHGs from stationary, area, and mobile sources. The control measures are organized into nine categories: stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (e.g., methane, black carbon, and fluorinated gases).

As described in **Table 4**, the project would be consistent with applicable control measures from the 2017 CAP. Because the project would not result in any significant and unavoidable air quality impacts related to emissions, ambient concentrations, or public exposures (see Items (b) through (d) below and Section VIII, *Greenhouse Gas Emissions*, of this Initial Study), the project would support the primary goals of the 2017 CAP. Therefore, based on the BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a), the project would not conflict with or obstruct implementation of the applicable air quality plan, and the impact would be less than significant.

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

Less Than Significant with Mitigation Incorporated

Construction Emissions

Construction of the project would generate criteria pollutant emissions that could potentially affect regional air quality. The primary pollutant emissions of concern would be ROG, NO_x, PM_{10}, and $PM_{2.5}$ from the exhaust of off-road construction equipment and on-road construction vehicles (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 activities, and fugitive ROG emissions would result from paving activities.

The BAAQMD recommends using the most recent version of the California Emissions Estimator Model (CalEEMod version 2016.3.2) to estimate construction and operational emissions of pollutants 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 default data (e.g., power of construction equipment) are supported by substantial evidence provided by regulatory agencies and a combination of statewide and regional surveys. The primary input data used to estimate emissions associated with construction of the project are summarized in **Table 5**. Project-specific construction input parameters modified from the CalEEMod default assumptions are summarized in **Table 6**. A copy of the CalEEMod report for the proposed project, which summarizes the input parameters, assumptions, and findings, is provided in a supplemental document titled "CalEEMod Results and Health Risk Assessment" found in **Appendix B**.

TABLE 4 PROJECT CONSISTENCY WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) 2017 CLEAN AIR PLAN (CAP)

Control Measures	Proposed Project Consistency
Stationary Sources	The stationary source measures are enforced by the BAAQMD pursuant to its authority to control emissions from permitted facilities. The project would not include any new stationary sources, such as an emergency diesel generator. Therefore, the stationary sources control measures of the 2017 CAP are not applicable to the project.
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 project operation would not generate any additional vehicle trips compared to the existing conditions. Therefore, the project would be consistent with the transportation control measures of the 2017 CAP.
Energy	The energy control measures are designed to reduce emissions of criteria air pollutants, toxic air contaminants (TACs), and greenhouse gases (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 apply to electrical utility providers and local government agencies (and not individual projects), the energy control measures of the 2017 CAP are not applicable to the project.
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 GHG control practices and policies. The proposed building would be built to the most recent (2019) building energy efficiency standards. Therefore, the project would be consistent with the building control measures of the 2017 CAP.
Agriculture	The agriculture control measures are designed primarily to reduce emissions of methane. Since the project does not include any agricultural activities, the agriculture control measures of the 2017 CAP are not applicable to the project.
Natural and Working Lands	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 CAP are not applicable to the 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 project would comply with State of California (e.g., California Green Building Standards Code) requirements for waste management (e.g., recycling and composting services). Therefore, the project 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 will reduce emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works (POTWs), and promoting the use of biogas recovery systems. Since these measures apply to POTWs and local government agencies (and not individual projects), the water control measures of the 2017 CAP are not applicable to the project.
Super GHGs	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 projects, the super-GHG control measures of the 2017 CAP are not applicable to the project.

Source: BAAQMD, 2017b.

TABLE 5 PROJECT LAND USE INPUT PARAMETERS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD) USED TO ESTIMATE AIR EMISSIONS

Land Use Type	CalEEMod Land Use Type	Units	Unit Amount
Education	Junior College (Two-Year)	1,000 square feet	37
Parking	Parking Lot	Spaces	35

Source: CalEEMod (see Appendix B).

TABLE 6 CONSTRUCTION INPUT PARAMETERS FOR CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

CalEEMod Input Category	Construction Assumptions and Changes to Default Data
Construction Schedule	Construction was assumed to begin in August 2021 and last about 16 months. The demolition phase was assumed to occur at the end of construction based on project-specific construction phasing. CalEEMod applies default equipment usage and construction phase durations based on the findings of a survey of construction projects of fewer than 5 acres. It was assumed that the project acreage for CalEEMod is the sum of areas of the existing buildings to be demolished and the proposed new building.
On-Site Construction Equipment	Two skid steer loaders were added to the demolition phase and one bore/drill rig for pile driving was added to the site preparation phase according to construction details provided by the Peralta Community College District.
Material Movement	Approximately 1,575 cubic yards of concrete would be delivered to the project site by a total of 175 truck trips. Additionally, 10 delivery trucks would go to and from the project site every workday throughout the construction period.
Demolition	A maximum of 2,470 cubic yards of demolition debris would be hauled off-site by 137 truck trips.

Note: Default CalEEMod data used for all other parameters not described.
Source: CalEEMod (see Appendix B).

To determine if project construction emissions could substantially contribute to existing violations of federal and/or state ambient air quality standards in the SFBAAB, the project's emissions are compared to the BAAQMD's thresholds of significance, below.

Construction Fugitive Dust Emissions

Impact AIR-1: Fugitive dust emissions during project construction could result in a cumulatively considerable net increase in particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards. (PS)

Soil disturbance activities during construction could generate fugitive dust PM_{10} and $PM_{2.5}$ emissions that could result in a potentially significant impact in relation to ambient air quality standards. 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 dust control measures during construction sufficient to reduce air quality impacts from fugitive dust to a less-than-significant level. More specifically, the BAAQMD recommends that all construction projects implement the Basic

Construction Mitigation Measures from the BAAQMD's CEQA Air Quality Guidelines (BAAQMD, 2017a) to reduce emissions of fugitive dust (regardless of the estimated emissions). The BAAQMD's Basic Construction Mitigation Measures for controlling dust are included in Mitigation Measure AIR-1, below.

> *Mitigation Measure AIR-1: During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (BAAQMD):*
>
> - *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
> - *If any hauling activities would occur, 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.*
> - *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.*
>
> *In addition, an independent construction monitor or a Peralta Community College District employee shall conduct periodic site inspections, but in no event fewer than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report to the Peralta Community College District documenting the inspection results. Reports indicating non-compliance with construction mitigation measures shall be cause to issue a stop-work order until such time as compliance is achieved. (LTS)*

Construction ROG, NOx, and Exhaust PM_{10} and $PM_{2.5}$ Emissions

Estimates of construction emissions were averaged over the total working days and compared to the BAAQMD's thresholds of significance in **Table 7**. The project's estimated emissions for ROG, NO_x, and exhaust PM_{10} and $PM_{2.5}$ were below the applicable thresholds. Therefore, project construction would not result in a considerable net increase in ozone and particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards, and the associated impact would be less than significant.

TABLE 7 ESTIMATED PROJECT CONSTRUCTION EMISSIONS (POUNDS PER DAY)

	ROG	NO_x	Exhaust PM_{10}	Exhaust $PM_{2.5}$
Project Construction Emissions	2.0	8.1	0.37	0.36
BAAQMD's Thresholds of Significance	54	54	82	54
Exceed Threshold?	No	No	No	No

Note: BAAQMD = Bay Area Air Quality Management District; ROG = reactive organic gases; NO_x = nitrogen oxides; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter
Source: CalEEMod (see Appendix B).

Operational Emissions

During project operation, the primary pollutant emissions of concern would be ROG, NOx, and exhaust PM_{10} and $PM_{2.5}$ from mobile sources, energy use, and area sources (e.g., consumer products, architectural coatings, and landscape maintenance equipment). The BAAQMD CEQA Air Quality Guidelines include screening levels for criteria air pollutant emissions from projects containing certain land uses. As shown in **Table 8**, the project is below the applicable screening levels from the Guidelines. Furthermore, the proposed new building would be built to the most recent building codes, would replace two existing buildings, and would not generate additional traffic compared to the existing conditions. Therefore, project operation would not result in a considerable net increase in ozone and particulate matter concentrations for which the region is non-attainment under federal and state ambient air quality standards, and the associated impact would be less than significant.

TABLE 8 CRITERIA AIR POLLUTANT AND PRECURSOR SCREENING LEVEL SIZES

Land Use Type	Project Size	Operational Criteria Pollutant Screening Size
Junior College (Two-Year)	37,000 square feet	152,000 square feet
Exceed Threshold?		No

Source: BAAQMD, 2017a.

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

Less Than Significant Impact

The term "sensitive receptor" refers to a location where individuals are more susceptible to poor air quality. Sensitive receptors include schools, convalescent homes, and hospitals because the very young, the old, and the infirm are more susceptible than the rest of the public to air quality-related health problems. Residential areas are also considered sensitive to poor air quality because people are often at home for extended periods, thereby increasing the duration of exposure to potential air contaminants. The BAAQMD recommends evaluating the potential impacts on sensitive receptors located within 1,000 feet of a project. The project's potential impacts on sensitive receptors from emissions of CO and TACs are discussed below.

Localized Carbon Monoxide Concentrations

The occurrence of localized CO concentrations, also known as "hotspots," can affect sensitive receptors in local communities. The source of local CO emissions is often associated with heavy traffic congestion, which most frequently occurs at signalized intersections of high-volume roadways. The BAAQMD's threshold of significance for local CO concentrations is equivalent to the 1- and 8-hour California Ambient Air Quality Standards (CAAQS) of 20.0 and 9.0 parts per million, respectively, because these represent levels that are protective of public health.

Operation of the project would not generate additional traffic compared to existing conditions. According to the BAAQMD CEQA Guidelines (BAAQMD, 2017a), since operation of the project would not generate more than 44,000 vehicles per hour at the affected intersections, the project would not be expected to increase local CO levels above the CAAQS. Therefore, the project would have a less-than-significant impact on nearby sensitive receptors exposed to local CO concentrations.

Toxic Air Contaminants from Project Construction

Project construction would generate diesel particulate matter (DPM) and $PM_{2.5}$ emissions from off-road diesel construction equipment and on-road vehicles traveling to and from the project site, and these emissions could affect nearby sensitive receptors. The annual average concentrations of DPM and $PM_{2.5}$ concentrations were estimated within 1,000 feet of the project using the U.S. Environmental Protection Agency (EPA) Industrial Source Complex Short Term (ISCST3) air dispersion model (EPA, 1995). For this analysis, emissions of exhaust PM_{10} were used as a surrogate for DPM. Because less than 1 percent of the total construction emissions of DPM and $PM_{2.5}$ would be generated by on-road vehicles (worker, vendor, and haul trucks) traveling to and from the project site, only the off-road diesel construction equipment was included in the analysis. The input parameters and assumptions used for estimating emission rates of DPM and $PM_{2.5}$ from off-road diesel construction equipment are included in the supplemental document titled "CalEEMod Results and Health Risk Assessment" (see **Appendix B**).

The exhaust from off-road equipment was represented in the ISCST3 model as a series of volume sources with a release height of 5 meters to represent the mid-range of the expected plume rise from frequently used construction equipment. Dispersion of air pollutants from off-road construction equipment was modeled using the χ/Q ("chi over q") method, such that each source has a unit emission rate (e.g., 1 gram per second for volume sources). The annual average concentration profiles from the air dispersion model were then scaled according to the ratio between the unit emission rate and the actual emission rate from each source. Actual emission rates for off-road equipment were based on the actual hours of work and averaged over the entire duration of construction. Daily emissions from construction were assumed to occur from 7:00 AM to 7:00 PM Monday through Friday and from 8:00 AM to 5:00 PM on Saturdays.

A uniform grid of receptors spaced 25 meters apart with receptor heights of 1.8 meters was encompassed around the project site as a means of developing isopleths (i.e., concentration contours) that illustrate the air dispersion pattern from the various emission sources. The ISCST3 model input parameters included 1 year of BAAQMD meteorological data from the Oakland Sewage Treatment Plant weather station located about 7.5 miles northwest of the project site.

Based on the results of the air dispersion model (see **Appendix B**), potential health risks were evaluated for the maximally exposed individual resident (MEIR) located at a single-family home about 160 feet south of the project site, and the maximally exposed individual student (MEIS) located at the existing child care center approximately 90 feet west of the project site. In accordance with guidance from the BAAQMD (2016) and the Office of Environmental Health Hazard Assessment (OEHHA, 2015), a health risk assessment was conducted to calculate the incremental increase in cancer risk and chronic hazard index (HI) to the MEIR and the MEIS from DPM emissions during construction. Analysis of acute non-cancer health hazards from construction activity is not recommended by the BAAQMD, nor has a reference exposure level been approved by OEHHA and the California Air Resources Board (CARB). The annual average concentrations of DPM at the MEIR and MEIS were used to conservatively assess potential health risks to nearby sensitive receptors. At the MEIR location, the incremental increase in cancer risk from on-site DPM emissions during construction was assessed for a young child exposed to DPM for 16 months starting from in utero in the third trimester of pregnancy. At the MEIS location, the incremental increase in cancer risk from on-site DPM emissions during construction was assessed for a young child exposed to DPM for 16 months starting from infancy, which is the earliest age at which a student can enroll in the child care center. This exposure scenario represents the most sensitive individuals who could be exposed to adverse air quality conditions in the vicinity of the project site. The input parameters and results of the health risk assessment are included in the supplemental document titled "CalEEMod Results and Health Risk Assessment" (see **Appendix B**).

Estimated health risks at the MEIR and MEIS from DPM and $PM_{2.5}$ concentrations during construction of the project are summarized and compared to the BAAQMD's thresholds of significance in **Table 9**. The excess cancer risk, the chronic HI, and the annual average $PM_{2.5}$ concentration at both the MEIR and the MEIS were below the BAAQMD's thresholds of significance. Therefore, the project's emissions of DPM and $PM_{2.5}$ during construction would have a less-than-significant impact on nearby sensitive receptors.

TABLE 9 HEALTH RISKS AND HAZARDS AT MAXIMALLY EXPOSED INDIVIDUAL RESIDENT (MEIR) AND MAXIMALLY EXPOSED INDIVIDUAL STUDENT (MEIS) DURING PROJECT CONSTRUCTION

	Diesel Particulate Matter (DPM)		Exhaust $PM_{2.5}$
Sensitive Receptor	**Cancer Risk (per million)**	**Chronic Hazard Index**	**Annual Average Concentration (µg/m³)**
MEIR	9.2	0.01	0.06
MEIS	3.3	<0.01	0.01
Thresholds of Significance	10	1	0.3
Exceed Thresholds?	No	No	No

Note: $PM_{2.5}$ = fine particulate matter; µg/m³ = micrograms per cubic meter.
Source: CalEEMod (see Appendix B).

Toxic Air Contaminants from Project Operation

Under the existing conditions, the program served by Building B on the project site operates with an existing BAAQMD permit (Plant Number 8673) for stationary sources of TAC emissions (BAAQMD, 2015a), and includes the following TAC sources: fuel combustion, surface coaters, and organic solvents. The project would not modify the operation of the existing stationary sources on the project site, nor would it introduce any new stationary source of TAC emissions. Similar to the existing operations on project site, the project would comply with the existing BAAQMD regulations related to storage and use of solvents during project operation. Therefore, project operations would have no impact on nearby sensitive receptors related to substantial pollutant concentrations.

Cumulative TAC Emissions

In addition to a project's individual TAC emissions during construction and operation, the BAAQMD recommends evaluating the potential cumulative health risks to sensitive receptors from existing and reasonably foreseeable future sources of TACs, including project construction and operation activities. The BAAQMD's online screening tools were used to provide conservative estimates of how much existing and foreseeable future TAC sources would contribute to cancer risk, HI, and $PM_{2.5}$ concentrations at the MEIR. The individual health risks associated with each source were summed to find the cumulative impact at the MEIR.

Based on the BAAQMD's 2018 inventory of permitted stationary sources for TAC and $PM_{2.5}$ emissions (BAAQMD, 2020a), three existing stationary sources are located within 1,000 feet of the MEIR (see **Table 10** and the supplemental document titled "CalEEMod Results and Health Risk Assessment" found in **Appendix B**). One of the existing stationary sources is the program on the project site under the permit for Plant Number 8673, discussed above. Preliminary health risk screening values at the MEIR were determined using the recent facility emissions data and the BAAQMD's Gasoline Dispensing Facility Distance Multiplier Tool (BAAQMD, 2020b).

Preliminary health risk screening values at the MEIR from exposure to mobile sources of TACs were estimated based on the BAAQMD's Bay Area modeling of health risks from highways, railroads, and major roadways with an average annual daily traffic (AADT) volume greater than 30,000 vehicles per day (BAAQMD, 2014). According to the BAAQMD's modeling of mobile sources, there are no major roadways, highways, or railroads within 1,000 feet of the MEIR.

The BAAQMD also recommends using the Roadway Screening Analysis Calculator to evaluate health risks from major roadways with between 10,000 and 30,000 AADT (BAAQMD, 2015b). Based on review of 2020 AADT volumes forecasted by Alameda County Transportation Commission (ACTC, 2014), there are two roadways (Ralph Appezzato Memorial Parkway and Webster Street) with between 10,000 and 30,000 AADT within 1,000 feet of the MEIR (see Table 10 and **Appendix B**). The health risk screening values at the MEIR from the roadway were estimated using the BAAQMD's Roadway Screening Analysis Calculator and the cancer risks were adjusted using a factor of 1.374 to account for the most recent health risk parameters recommended by OEHHA.

TABLE 10 SUMMARY OF CUMULATIVE HEALTH RISKS AT MAXIMALLY EXPOSED INDIVIDUAL RESIDENT (MEIR)

Source	Source Type	Method Ref	Cancer Risk (10^{-6})	Chronic Hazard Index	$PM_{2.5}$ ($\mu g/m^3$)
Proposed Project					
Project Construction	Diesel Exhaust		9.2	0.01	0.06
Existing Permit (Plant Number 8673)	Coating Operation	1	N/A	<0.01	N/A
Existing Stationary Sources					
Dreams AutoWorks (Plant Number 12332)	Coating Operation	1	N/A	<0.01	N/A
Chevron Station (Plant Number 107722)	Gasoline Station	1,4	0.4	<0.01	N/A
Existing Mobile Sources					
Webster Street (12,180 AADT)	Major Roadway	2,3	1.1	N/A	0.01
Ralph Appezzato Memorial Parkway (11,410 AADT)	Major Roadway	2,3	5.3	N/A	0.07
Cumulative Health Risks			16	<0.1	0.1
Thresholds of Significance			100	10.0	0.8
Threshold Exceedance?			No	No	No

Note: $\mu g/m^3$ = micrograms per cubic meter; N/A = not applicable; Ref = reference; AADT = annual average daily traffic; $PM_{2.5}$ = fine particulate matter
Health risk screening values derived using the following Bay Area Air Quality Management District (BAAQMD) tools and methodologies:
1) BAAQMD's 2018 stationary source emissions data.
2) BAAQMD's Roadway Screening Analysis Calculator.
3) BAAQMD's recommended Office of Environmental Health Hazard Assessment cancer risk adjustment factor.
4) BAAQMD's Gasoline Dispensing Facility Distance Multiplier Tool.
Sources: CalEEMod (see Appendix B).

There are no foreseeable future developments within 1,000 feet of the MEIR that could involve the operation of emergency diesel generators or other stationary sources of TAC emissions.

Estimates of the cumulative health risks at the MEIR are summarized and compared to the cumulative thresholds of significance in Table 10. The cumulative excess cancer risk, the chronic HI, and the annual average $PM_{2.5}$ concentration at the MEIR were below the BAAQMD's cumulative thresholds. Therefore, the cumulative impact related to the exposure of existing sensitive receptors to TAC and $PM_{2.5}$ from project construction and operation would be less than significant.

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

Less Than Significant Impact

Project construction would not be expected to generate significant odors because construction is temporary in nature and would not include handling or generation of noxious materials. Project operation would continue the existing activities permitted under the existing permit for Plant Number 8673. Although project operations would include painting and coating using organic solvents and other

materials that may emit foul odors, the project operations would be similar to existing conditions. Therefore, project impacts related to odors would be less than significant.

REFERENCES

Alameda County Transportation Commission (ACTC), 2014. Countywide Travel Demand Model. Planning Area 1; 2020 Daily Model Vehicle Volumes, July.

Bay Area Air Quality Management District (BAAQMD), 2020a. Permitted Stationary Sources Risk and Hazards. Available at: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65, accessed July 13, 2020.

Bay Area Air Quality Management District (BAAQMD), 2020b. BAAQMD Health Risk Calculator Beta 4.0, April 3.

Bay Area Air Quality Management District (BAAQMD), 2017a. CEQA Air Quality Guidelines, May.

Bay Area Air Quality Management District (BAAQMD), 2017b. 2017 Clean Air Plan: Spare the Air, Cool the Climate, April 19.

Bay Area Air Quality Management District (BAAQMD), 2016. Air Toxics NSR Program, Health Risk Assessment Guidelines, December.

Bay Area Air Quality Management District (BAAQMD), 2015a. Permit for Plant 8673, May 9.

Bay Area Air Quality Management District (BAAQMD), 2015b. Roadway Screening Analysis Calculator, April 16.

Bay Area Air Quality Management District (BAAQMD), 2014. BAAQMD Planning Healthy Places Highway, Major Street, and Rail Health Risk Raster Files, 2014.

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report; California Environmental Quality Act Thresholds of Significance, October.

California Air Pollution Control Officers Association, 2016. California Emissions Estimator Model (CalEEMod), Version 2016.3.2.

Office of Environmental Health Hazard Assessment (OEHHA), 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February.

U.S. Environmental Protection Agency (EPA), 1995. Industrial Source Complex Short Term (ISCST3) Air Dispersion Model.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 U.S. 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?	❒	❒	❒	■

IMPACT EVALUATION

a) Would the 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?

Less Than Significant with Mitigation Incorporated

Special-status species are plants and animals that are legally protected under the State of California and/or federal Endangered Species Acts[4] or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species with legal protection under the

[4] The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. Section 703, *et seq.*) declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 (Fish and Game Code, Section 2050, *et seq.*) parallels the policies of the FESA and pertains to native California species. For discussion of local or regional plans, see analysis under Item (e), below.

Endangered Species Acts often represent major constraints to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"[5] of these species.

A data search was completed in 2017 for the College of Alameda New Center for Liberal Arts project to identify known occurrences of special-status plant and special-status animal species in the surrounding Alameda vicinity (CDFW, 2017; USFWS, 2017). No occurrences of any special-status plant species have been reported by the California Natural Diversity Data Base (CNDDB) from the campus or surrounding area. Occurrences of 14 special-status plant species have been reported by the CNDDB within several miles of the project site, but no specific occurrences of any special-status plant species have actually been recorded from the site. Broad, generalized occurrences of dark-eyed gilia (*Gilia millefoliata*) and Marin knotweed (*Polygonum marinense*) extend over all of Alameda and most of the west Oakland vicinity, but these are from old records from 1863 where the location could not be verified by the CNDDB. The site's developed condition with no remaining natural habitat precludes even the remote potential for presence of an occurrence of special-status plant species on the site.

General occurrences of Alameda song sparrow (*Melospiza melodia* ssp. *pusillula*), which is recognized as a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW), extend along the shoreline of Alameda and areas northwest and southeast of the site. Occurrences of 11 other special-status animal species have been reported from the Alameda vicinity, but no occurrence records for any of these species extend over the site. Due to the extent of past and on-going disturbance and lack of essential habitat features, no special-status animal species are suspected to occur on the site.

No evidence of any bird nests was observed during the field reconnaissance survey, or has been reported from the site by the CNDDB. However, there remains a remote potential that new nests of common bird species could be established in the future in advance of construction. Tree removal and building demolition during initial grubbing as part of project implementation could result in the inadvertent destruction of an active nest and loss of eggs or young, which would be a significant impact and a violation of the federal Migratory Bird Treaty Act and State Fish and Game Code.

Restricting the timing of initial tree removal, building demolition, and grubbing to outside the bird nesting season (from March through August) or conducting pre-construction surveys during the nesting season and implementing appropriate nest buffer measures while a nest is occupied would ensure avoidance of any adverse impacts on nesting birds. The following measure is recommended to fully mitigate the potentially significant impacts of the project on special-status species.

[5] "Take" as defined by the FESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the United States Fish and Wildlife Service (USFWS) to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The California Department of Fish and Wildlife (CDFW) also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA. Additionally, the Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, *et seq*.) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations or pursuant to certain regulatory exceptions.

Impact BIOLOGY-1: Removal of trees and other vegetation during project construction may result in the inadvertent destruction of active bird nests unless appropriate precautions are followed. (PS)

Mitigation Measure BIOLOGY-1: Any active bird nests in the vicinity of proposed vegetation removal and grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and vegetation removal during the non-nesting period (September through February), or if this is not feasible, by conducting a pre-construction survey for active nests. A pre-construction survey report verifying that no active nests are present, or that nesting has been completed as detailed below, shall be submitted to the Peralta Community College District for review and approval prior to initiation of grading or vegetation removal during the nesting season. Provisions of the pre-construction survey and nest avoidance measures, if necessary, shall include the following:

- *If initial grubbing and grading is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall conduct a pre-construction nesting survey no more than 7 days prior to initiation of grading or vegetation removal to provide confirmation on presence or absence of active nests in the vicinity.*
- *If active nests are encountered, species-specific measures shall be prepared by a qualified biologist through informal consultation with the California Department of Fish and Wildlife (CDFW) and implemented to prevent nest abandonment. At a minimum, vegetation removal and grading in the vicinity of the nest shall be deferred until the young birds have fledged. A nest setback zone of at least 100 feet for raptors and 50 feet for passerine birds shall be established, and all construction-related disturbances shall be prohibited within the nest setback zone. The perimeter of the nest setback zone shall be fenced or adequately demarcated and construction personnel restricted from the area.*
- *If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the nest setback zone until a qualified biologist verifies either that a) the birds have not begun egg-laying and incubation, or b) the juveniles from the nest are foraging independently and capable of independent survival at an earlier date.*
- *A survey report of findings verifying that any young have fledged shall be submitted for review and approval by the District prior to initiation of grading or vegetation removal in the nest setback zone. Following approval by the District, grading, vegetation removal, and construction in the nest setback zone may proceed as proposed.*

Implementation of Mitigation Measure BIOLOGY-1 would reduce potentially significant impacts on nesting birds to a less-than-significant level. (LTS)

b) Would the 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?

No Impact

Sensitive natural communities are community types recognized by the CDFW and other agencies because of their rarity. In the Alameda vicinity, sensitive natural community types include coastal salt marsh, brackish water, and freshwater marshlands. Sensitive natural community types are absent from the site and vicinity of proposed construction. Therefore, no significant impacts are anticipated and no mitigation is required.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted to life in saturated soil. Technical standards for delineating wetlands have been developed by the U.S. Army Corps of Engineers (Corps) and the USFWS. These standards generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions.

The CDFW, Corps, and Regional Water Quality Control Board have jurisdiction over modifications to wetlands and other "waters of the United States." Jurisdiction of the Corps is established through provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material without a permit. The Regional Water Quality Control Board jurisdiction is established through Section 401 of the Clean Water Act, which requires certification or waiver to control discharges in water quality, and the State Porter-Cologne Act. Jurisdictional authority of the CDFW over wetland areas is established under Sections 1600-1607 of the State Fish and Game Code, which pertain to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream.

A preliminary wetland assessment was conducted during the field reconnaissance, and no indication of jurisdictional waters was observed on the project site. Appropriate best management practices (BMPs) would be implemented during construction to prevent erosion and sedimentation that could enter the storm drain system and eventually be discharged downstream, as discussed further in Section X, *Hydrology and Water Quality,* of this Initial Study.

Jurisdictional waters are absent from the site and vicinity of proposed construction, and therefore no adverse impacts are anticipated and no mitigation is required.

d) Would the 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?

Less Than Significant Impact

The project would not have any significant adverse impacts on wildlife movement opportunities or adversely affect native wildlife nursery sites. Wildlife in the vicinity of the site are already acclimated to human activity, and construction-related disturbance would not cause any significant impacts on common wildlife species found in the area. Some common species could be eliminated or displaced from the site during construction, but these are not special-status species and their loss or displacement would not be considered a significant impact. Pre-construction surveys recommended in Mitigation Measure BIOLOGY-1 would ensure avoidance of any nesting birds if new nests become established before construction is initiated. Wildlife species commonly associated with suburban habitat would eventually frequent the site again following construction, using the remaining trees, proposed ornamental landscaping, and even structures for foraging, roosting, and other activities. No substantial disruption of movement corridors or access to native wildlife nursery sites is anticipated. Potential impacts on wildlife movement opportunities would be less than significant and no mitigation is required.

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

No Impact

Conformance with General Plan

The Open Space and Conservation Element of the City of Alameda General Plan includes Guiding and Implementing Policies related to preservation of biological and wetland resources. However, these generally pertain to wetlands associated with San Francisco Bay, not found on the site. Implementing Policy 5.1.bb requires that a biological assessment be completed where a proposed development site may affect special-status species. This Initial Study provides a biological assessment in conformance with this policy, even though suitable habitat for special-status species is absent. The project is not expected to have any conflicts with the relevant policies of the City's General Plan.

Conformance with Municipal Code

No major conflicts with Alameda Municipal Code provisions pertaining to trees and vegetation are anticipated. A total of 19 mature existing trees would be removed for the project. These trees would consist of nine sequoias ranging from 36 to 48 inches diameter breast height (dbh), five cinnamomum ranging from 24 to 48 inches dbh, two melaleucas that are 36 inches dbh, one fraxinus (ash) that is 24 dbh, one olea that is 24 inches dbh, and one juniper that is 15 to 24 inches dbh. These trees are listed in Table 2 and shown in Figure 5. None of the trees proposed to be removed are protected by the City of Alameda. New landscaping would serve to replace the scattered trees removed as part of the project, and no significant conflicts with provisions in the local ordinance related to trees and other biological resources are anticipated.

f) Would the 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?

No Impact

No adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other conservation plan applies to the project site or vicinity. No impacts regarding possible conflicts with an adopted plan are anticipated, and no mitigation is required.

REFERENCES

California Department of Fish and Wildlife (CDFW), California Natural Diversity Data Base (CNDDB), 2017. GIS data for Oakland East and Oakland West U.S.G.S. 7.5' topographic maps, accessed by Digital Mapping Solutions, May 4.

Peralta Community College District, 2017. Initial Study/Mitigated Negative Declaration, College of Alameda New Center for Liberal Arts, September.

U.S. Fish and Wildlife Service (USFWS), Sacramento Office, 2017. GIS data on Critical Habitat Units, accessed by Digital Mapping Solutions, May 10.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	❒	■	❒	❒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	❒	■	❒	❒
c) Disturb any human remains, including those interred outside of formal cemeteries?	❒	❒	❒	■

IMPACT EVALUATION

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less Than Significant with Mitigation Incorporated

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources), it generally must be 50 years or older. Under CEQA, historical

resources can include pre-contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts.

To identify historical resources on the project site, and to assess the potential for encountering such resources (i.e., subsurface archaeological deposits) during construction, background research was conducted for this Initial Study. This background research consisted of a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System, Sonoma State University, Rohnert Park, and a review of historical maps.[6]

The records search at the NWIC was conducted on June 8, 2020, and included a review of archaeological site location information and a review of the State of California Office of Historic Preservation (OHP) *Built Environment Resource Directory* (March 3, 2020). The *Directory of Properties* includes listings for the National Register of Historic Places, National Historic Landmarks, the California Register of Historical Resources, California Historical Landmarks, and California Points of Historical Interest. The NWIC records search did not identify recorded historical resources in or immediately adjacent to the project site.

A review of historical maps published between 1857 and 1946 indicates that the project site sits on filled marshland that historically was characterized by a series of sloughs and salt marshes. The project site was filled circa 1918. Due to the subsurface conditions of the project site, characterized by fill and Younger Bay Mud, there is a low potential for encountering pre-contact, Native American archaeological deposits during construction. There is a potential for identifying pre-1918 transportation-related features during construction, including railroad tracks, spurs, and pier remnants. Such features, if present within the area of project ground disturbance, would need to be evaluated by an archaeologist to determine if they qualify as historical resources under CEQA.

The College of Alameda campus was constructed circa 1970 and does not appear to have important historical associations that would qualify it for listing in the California Register of Historical Resources, nor does it otherwise qualify as a historical resource as defined in CEQA Guidelines Section 15064.5.

Based on the significance criteria identified above, the project would have a significant impact on the environment if ground-disturbing activities would cause a substantial adverse change in the significance of a historical resource. A substantial adverse change in the significance of a historical resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)).

Impact CULTURAL-1: The project could affect previously unidentified archaeological deposits, thereby causing a substantial adverse change in the significance of a historical resource as defined in Section 15064.5. (PS)

> *Mitigation Measure CULTURAL-1: The Peralta Community College District shall inform its contractor(s) of the sensitivity of the project site for archaeological deposits. The District shall verify that the following directive has been included in the appropriate construction documents:*

[6] The NWIC is an affiliate of the State of California Office of Historic Preservation (OHP) and is the official state repository of cultural resources records and reports for Alameda County.

"If archaeological deposits are discovered during project activities, all work within 50 feet of the discovery shall be redirected. The District shall contact a qualified archaeologist to assess the situation and make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. Archaeological materials that may be encountered include historical materials, such as wood, stone, or concrete footings, walls, and other structural remains including dock remnants. Although not anticipated, prehistoric archaeological materials may be mixed within fill underlying the project site. Prehistoric archaeological materials include obsidian or chert flaked-stone tools (e.g., projectile points, knives, choppers) or toolmaking debris; shellfish remains; faunal bones; and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains."

With implementation of the above mitigation measure, the potential impact on historical and archaeological resources would be reduced to a less-than-significant level. (LTS)

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant with Mitigation Incorporated

In accordance with CEQA Guidelines Section 15064.5(c)), if the project would affect an archaeological deposit, the lead agency must first determine whether the deposit is a "historical resource" (see CEQA Guidelines Section 15064.5(a)). If the deposit is not a historical resource, the lead agency must determine if the deposit is a "unique archaeological resource."

As described under Item (a) above, background research was done to identify archaeological deposits—and the potential for encountering such deposits—including those that qualify as archaeological resources under CEQA. This background research determined that there are no recorded archaeological resources on the project site, although there is a potential for encountering subsurface archaeological deposits during construction.

Based on the significance criteria identified above, a project would have a significant impact on the environment if ground-disturbing activities would cause a substantial adverse change in the significance of a historical or archaeological resource. A substantial adverse change in the significance of an archaeological resource would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). For this project, the significance of a historical resource would be materially impaired if ground disturbance would alter in an adverse manner those physical characteristics of the resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources.

Impact CULTURAL-2: The project could affect previously unidentified archaeological deposits, thereby causing a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5. (PS)

Mitigation Measure CULTURAL-2: Implement Mitigation Measure CULTURAL-1. (LTS)

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

No Impact

Pre-contact archaeological sites in the Bay Area are known to contain Native American skeletal remains. Background research conducted for this Initial Study at the NWIC (see discussion under Item (a) above) did not identify recorded Native American skeletal or cremated remains at or adjacent to the project site.

Although no human remains have been identified within the project site, there is a remote possibility of encountering disarticulated remains in redeposited artificial fill or underlying the Younger Bay Mud, either in isolation or with pre-contact archaeological deposits that may have been buried during early and mid-Holocene sea level rise. Such remains could be uncovered during project ground-disturbing activities.

In the event that human remains are identified during project construction, Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code would apply, as appropriate.

Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (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 associated grave goods.

Section 5097.98 of the Public Resources Code states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the MLD) it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

With these regulations in place, no impact on human remains is anticipated, and no mitigation is necessary.

REFERENCES

California Office of Historic Preservation, 2020. *Built Environment Resource Directory*. Electronic document. Available at: https://ohp.parks.ca.gov/?page_id=30338, accessed July 1, 2020.

California Office of Historic Preservation, 2020. Northwest Information Center (NWIC) of the California Historical Resources Information System, review of records, reports, and historical maps (1857-1946), June 8.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. 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 EVALUATION

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?

Less Than Significant Impact

The project would not increase the student, faculty, or staff population on the campus, and therefore project operations would not substantially increase overall per capita energy consumption. The estimated building gas load is 1,850 thousand British thermal units per hour (MBH), and the calculated electrical load is 1,800 amps (A) at 277/480 volts (V) (three-phase, +/-900 kilovolt amps [kVA]) (JK Architecture Engineering, 2020). The project building would likely use less energy than the existing on-campus facilities occupied by the proposed land uses, since new buildings typically use less energy than older ones. The project would not generate new traffic, since the proposed land uses already exist on the campus.

As noted in Chapter I, Project Description, of this Initial Study, the project's energy-saving features are expected to include (1) thermally broken storefront double-glazed systems, which are more energy-efficient than single-paned glass; (2) water-saving plumbing fixtures at or above standards of the State of California Green Building Standards Code; (3) water-efficient irrigation systems mandated by the Division of the State Architect; and (4) indoor lighting systems to meet the minimum code efficiency requirements for Title-24 2016 (2016 California Building Code) (e.g., light-emitting diode [LED] lighting, occupancy sensors in offices, and daylight dimming controls at the perimeter zones). In addition, the project's design team expects the project would include a solar-panel ready rooftop, high-efficiency lighting and mechanical systems controls, augments to the energy-efficient design by 10 percent above

Title 24 to secure the California Chancellor's Office Board of Governors Energy Grant, and extensive daylighting such as clerestory windows and skylights in the instructional areas of the facility (JK Architecture Engineering, 2020).

Some minor amounts of energy (gasoline for equipment, etc.) would be used during construction, but this consumption would be temporary and would not be a substantial increase. Construction contractors typically have financial incentives to minimize energy use.

For these reasons, project construction and operations would not result in wasteful, inefficient, or unnecessary consumption of energy, and the 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?

Less Than Significant Impact

The project would not conflict with or obstruct any state or local plan for improved energy efficiency or the use of renewable energy. Ultimately, during project operations, energy savings may result from the greater energy efficiency of the project building, compared to the existing facilities occupied by the proposed land uses. The project would abide by all State of California mandates for energy conservation, and final designs would be subject to approval by the Division of the State Architect, which reviews community college project designs to determine compliance with the California Building Code. The project would contain energy-saving features as described under Item (a) above. For these reasons, the impact would be less than significant.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. 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?	❒	❒	■	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 off-site 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 waste water 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?	❒	❒	■	❒

BACKGROUND

The project site is located within the central portion of the Coast Ranges geomorphic province, which includes numerous active faults identified by the California Geological Survey (CGS) under the Alquist-Priolo Earthquake Fault Zoning Act. CGS defines an active fault as one that has ruptured during the Holocene Epoch (i.e., the last 11,000 years). The probability of one or more large earthquakes (magnitude 6.7 or greater) occurring in the Bay Area between 2014 and 2044 is about 72 percent (Field, E.H. and the 2014 Working Group on California Earthquake Probabilities, 2015). The probabilities of a large earthquake occurring along an active fault segment near the project site are summarized in **Table 11**. Potential impacts associated with seismic activity at the project site, including fault rupture, ground shaking, ground failure, liquefaction, and landslides, are discussed below.

TABLE 11 ACTIVE EARTHQUAKE FAULTS NEAR PROJECT SITE

Fault Name	Location Relative to Project Site	Probability of Large Earthquake Between 2014 and 2044
Hayward Fault	5 miles northeast	14.3%
Calaveras Fault	15 miles east	7.4%
San Andreas Fault	14 miles southwest	6.4%

Note: The probability of a large earthquake (magnitude 6.7 or greater) was estimated between 2014 and 2044.
Source: Field, E.H. and the 2014 Working Group on California Earthquake Probabilities, 2015.

CGS has mapped Seismic Hazard Zones that delineate areas susceptible to liquefaction and/or landslides that require additional investigation, prior to development or redevelopment, to determine the extent and magnitude of potential ground failure hazards. According to CGS mapping, the project site

is located within a Seismic Hazard Zone for liquefaction and is not located within a Seismic Hazard Zone for landslides (CGS, 2003).

Geohazard reports for new buildings at California schools, including community colleges, must be submitted to CGS for review and acceptance, and, subsequently, to the California Division of State Architect (DSA) for review (DSA, 2016). The DSA ensures that construction plans are, at a minimum, in compliance with the current California Building Code (Title 24, California Code of Regulations), which provides for stringent construction requirements on projects in areas of high seismic risk. Project design and construction are required to conform with, or exceed, current best standards for earthquake resistant construction in accordance with the California Building Code and with the generally accepted standards of geotechnical practice for seismic design in Northern California. The California Building Code also requires that a site-specific geotechnical investigation report be prepared by a licensed professional for proposed developments of one or more buildings greater than 4,000 square feet to evaluate geologic and seismic hazards, such as the proposed project. The purpose of a site-specific geotechnical investigation is to identify seismic and geologic conditions that require project mitigation, such as faults where surface fault rupture could occur, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. Requirements for the geotechnical investigation are presented in Chapter 16, "Structural Design," and Chapter 18, "Soils and Foundation," of the California Building Code.

The Field Act, contained in Education Code Sections 17280-17317 and 81130-81149, adds additional seismic safety requirements for California schools, including community colleges. The Field Act includes requirements for seismic design standards, plan review, construction inspections, and testing, which is overseen by DSA through plan review, permitting, and inspection of schools under construction.

A Geotechnical Design Report (Terraphase Engineering, 2020) has been prepared for the project. Information presented in the Geotechnical Design Report is discussed below.

IMPACT EVALUATION

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?

Less Than Significant Impact

Fault Rupture

Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. Surface rupture generally occurs along an existing (usually active) fault trace. Areas susceptible to surface fault rupture are delineated by the CGS Alquist-Priolo Earthquake Fault Zones and require specific geological investigations prior to development to reduce the threat to public health and safety and to minimize the loss of life and property posed by earthquake-induced ground failure.

The project site is not located within or adjacent to a mapped Alquist-Priolo Earthquake Fault Zone (CGS, 2003). Therefore, the project would have a less-than-significant impact related to fault rupture.

Strong Seismic Ground Shaking

Seismic ground shaking generally refers to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions.

The risk of ground shaking impacts is reduced through adherence to the design and materials standards set forth in the California Building Code, DSA review and approval of plans, specifications and construction in accordance with the requirements of the Field Act, and site-specific recommendations from a geotechnical investigation report approved by CGS and DSA. With adherence to these existing regulations and practices, the potential for the project to result in impacts related to ground shaking would be less than significant.

Liquefaction

Soil liquefaction is a phenomenon primarily associated with saturated soil layers located close to the ground surface. During ground shaking, these soils lose strength and acquire a "mobility" sufficient to permit both horizontal and vertical movements, which can result in settlement and damage to structures. Soils that are most susceptible to liquefaction are clean, loose, uniformly graded, saturated, fine-grained sands that lie relatively close to the ground surface. However, loose sands that contain a significant amount of fines (silt and clay) may also liquefy. As discussed above, the project site is located within a Seismic Hazard Zone for liquefaction (CGS, 2003).

The Seismic Hazards Mapping Act of 1990 (Public Resources Code, Chapter 7.8, Section 2690-2699.6) requires that a geotechnical investigation must be conducted and appropriate measures incorporated into the project design to address potential seismic hazards before a development permit may be granted for a site within a Seismic Hazard Zone. The geotechnical investigation must include appropriate site-specific characterizations and analyses outlined in the State of California's guiding document for seismic hazard analysis, Special Publication 117A (CGS, 2008).

The Geotechnical Design Report included a liquefaction assessment and indicated that between 3 and 5.2 inches of liquefaction-induced settlement could occur beneath the site in the loose sand strata between depths of approximately 16 and 36 feet (Terraphase Engineering, 2020).The installation of a deep foundation system consisting of driven piles in accordance with the recommendations of the Geotechnical Design Report (Terraphase Engineering, 2020) would ensure that the proposed structure would not be affected by liquefaction-induced settlement. The Geotechnical Design Report indicated that flatwork around the new building is likely to be extensively damaged by liquefaction settlements during a great earthquake; however, the cost of mitigating the liquefaction settlements would be orders of magnitude higher than the cost of repairing damaged flatwork. Potential damage to flatwork associated with liquefaction settlements would be considered a less-than-significant impact as it would not result in loss, injury, or death. Final grading, foundation, and building plans would be required to be designed in accordance with the California Building Code and site-specific recommendations from a

geotechnical investigation report prepared in accordance with Special Publication 117A and approved by DSA. These designs would include measures that would address, as necessary, the potential for settlement related to liquefaction. Therefore, compliance with existing regulations would ensure that the potential impacts on people or structures due to liquefaction would be less than significant.

Lateral Spreading

Lateral spreading is a phenomenon in which surficial soil displaces along a sloping ground surface as the result of liquefaction in a subsurface layer. Upon reaching mobilization, the surficial soils are transported downslope or in the direction of a free face by earthquake and gravitational forces. The project site is relatively flat and there are no slopes or free faces within or near the project site that could be susceptible to lateral spreading. Therefore, the project would have no impacts related to lateral spreading.

Seismically Induced Settlement

Seismically induced settlement can occur when non-saturated, cohesionless soil is densified by earthquake vibrations. The installation of a deep foundation system consisting of driven piles in accordance with the recommendations of the Geotechnical Design Report (Terraphase Engineering, 2020) would ensure that the proposed structure would not be affected by seismically induced settlement. Compliance with the existing regulations discussed above, including implementation of site-specific recommendations of the Geotechnical Design Report, would ensure that potential impacts on people or structures due to seismically induced settlement would be less than significant.

Landslides

Seismically induced landslides occur as the rapid movement of large masses of soil on unstable slopes during an earthquake. The Seismic Hazard Zones mapped by CGS delineate areas susceptible to seismically induced landslides that require additional investigation to determine the extent and magnitude of potential ground failure. The project site is not located within a Seismic Hazard Zone for seismically induced landslides (CGS, 2003). The project site and surrounding areas are relatively flat. Therefore, the project would have no impacts related to seismically induced landslides.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact

Soil erosion, which is discussed in detail in Section X, *Hydrology and Water Quality*, could occur during project grading and construction. As described in Section X, compliance with the Construction General Permit, including the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), would reduce potential impacts related to erosion of topsoil to a less-than-significant level.

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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact

As discussed under Item (a) above, the project site is not susceptible to lateral spreading or landslides, and compliance with the existing regulations discussed above, including designing the project in accordance with the California Building Code and site-specific recommendations from the Geotechnical Design Report (Terraphase Engineering, 2020), would ensure that potential impacts associated with liquefaction or settlement of unstable soil would be less than significant.

Subsidence

Subsidence or collapse can result from the removal of subsurface water, resulting in either catastrophic or gradual depression of the surface elevation of a site. The only removal of subsurface water that may occur as part of the project is dewatering of shallow excavations that could be required during construction. The dewatering of shallow excavations does not cause significant ground subsidence or collapse. Therefore, this potential impact would be less than significant.

Consolidation

Consolidation of soils is a process by which the soil volume decreases as water is expelled from saturated soils under static loads. As the water moves out from the pore space of the soil, the solid particles realign into a denser configuration that results in settlement. Consolidation typically occurs as a result of new buildings or fill materials being placed over compressible soils.

The project site is underlain by fill material, Younger Bay Mud, and loose sand, which may be subject to consolidation under new loads. The installation of a deep foundation system consisting of driven piles in accordance with the recommendations of the Geotechnical Design Report (Terraphase Engineering, 2020) would ensure that potential impacts associated with consolidation would be less than significant.

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?

Less Than Significant Impact

Expansive soils are characterized by the potential for shrinking and swelling as the moisture content of the soil decreases and increases, respectively. Shrink-swell potential is influenced by the amount and type of clay minerals present and can be measured by the percent change of the soil volume. As a consequence of such volume changes, structural damage to buildings and infrastructure can occur if potentially expansive soils are not considered in project design and during construction. As indicated in the Geotechnical Design Report (Terraphase Engineering, 2020), the project site is underlain by approximately 3 to 4 feet of fill material consisting of medium stiff/stiff silty and sandy clay that is medium expansive, underlain by Younger Bay Mud (which consists primarily of clay) that is medium to highly expansive. The Geotechnical Design Report indicates that the shallow native soil of the project

site is moderately expansive in nature, and because the groundwater table is shallow, the water content of the soils is unlikely to change significantly, so the expansive and shrinkage qualities of the soils are less likely to cause problems in the future.

The Geotechnical Design Report provides recommendations for the geotechnical properties of engineered fill, including requirements that expansive soils not be used as engineered fill at the project site (Terraphase Engineering, 2020). The Geotechnical Report also includes recommendations for drainage to control moisture in soil near the proposed building. Implementation of the recommendations of the Geotechnical Design Report, as required by existing regulations, would ensure that potential impacts related to expansive soil would be less than significant.

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

No Impact

The project would be served by a wastewater collection and conveyance system maintained by the City of Alameda. Wastewater from the City's collection system is conveyed to the East Bay Municipal Utility District (EBMUD) wastewater treatment plant. Development of the project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, the project would have no impact related to septic tanks or alternative waste water disposal systems.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact

Paleontological resources include fossilized remains or traces of organisms including plants, vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and microscopic plants and animals (microfossils), including their imprints, from a previous geological period. Collecting localities and the geologic formations containing those localities are also considered paleontological resources as they represent a limited, non-renewable resource and once destroyed cannot be replaced. The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on non-renewable paleontological resources (SVP, 2010). The SVP has helped define the value of paleontological resources and, in particular, states that significant paleontological resources are fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small; uncommon invertebrate, plant, and trace fossils; and other data that provide taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 years) (SVP, 2010).

The potential to disturb paleontological resources during project construction depends on the types of geologic units (and their fossil-bearing characteristics) that would be encountered during construction of the project. As indicated in the Geotechnical Design Report (Terraphase Engineering, 2020), the project site is underlain by approximately 3 to 4 feet of fill material, which is underlain by approximately

10 feet of Younger Bay Mud. The project would involve excavation activities that may extend through the fill material and into the Younger Bay Mud. Disturbing fill material during project construction would not affect paleontological resources because, due to the disturbed nature of fill material, fossils are not generally preserved in fill material. While the Younger Bay Mud may preserve a variety of marine invertebrate fossils (mollusks, clams, foraminifera, microorganisms, etc.), such fossils are likely to exist in other Younger Bay Mud deposits all around the Bay Area and would not be considered significant or unique. In addition, the results of a search of paleontological localities in the fossil collections database maintained by the University of California Museum of Paleontology (2020) identified no vertebrate or invertebrate fossil localities in Holocene-aged sediments (which include Younger Bay Mud) within Alameda County. The only fossil localities identified in Holocene-aged sediments within Alameda County included one plant in Oakland, one microfossil in Tyson's Lagoon, and three localities of unidentified collection type located in the Oakland hills, Berkeley, and Bonita. Therefore, the Younger Bay Mud beneath the project site is considered to have low paleontological sensitivity, and the project's impact on paleontological resources would be less than significant.

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	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. 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?	❒	❒	■	❒

BACKGROUND

Climate change refers to change in the Earth's weather patterns, including the rise in temperature due to an increase in heat-trapping greenhouse gases (GHGs) in the atmosphere. An increase of GHGs in the atmosphere affects the energy balance of the Earth and results in a global warming trend. Increases in global average temperatures have been observed since the mid-20th century and have been linked to observed increases in GHG emissions from anthropogenic sources. The primary GHG emissions of concern are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Other GHGs of concern include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6), but their contribution to climate change is less than 1 percent of the total GHGs that are well-mixed (i.e., that have atmospheric lifetimes long enough to be homogeneously mixed in the troposphere) (Intergovernmental Panel on Climate Change [IPCC], 2013). Each GHG has a different global warming potential (GWP). For instance, CH_4 traps about 21 times more heat per molecule than CO_2. As a result, emissions of GHGs are reported in metric tons of carbon dioxide equivalents (CO_2e), wherein each GHG is weighted by its GWP relative to CO_2.

According to the Intergovernmental Panel on Climate Change (IPCC), the atmospheric concentrations of CO_2, CH_4, and N_2O have increased to levels unprecedented in at least the last 800,000 years due to anthropogenic sources (IPCC, 2013). Some of the potential effects of increased GHG emissions and the associated climate change may include loss in snow pack (affecting water supply), sea level rise, more frequent extreme weather events, more large forest fires, and more drought years. In addition, climate change may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health (Bay Area Air Quality Management District [BAAQMD], 2017a).

In October 2018, the IPCC published a special report on potential long-term climate change impacts based on the projected increases in temperature due to global climate change. The IPCC report found that the Earth is already experiencing the consequences of global warming due to a 1 degree Celsius (°C) increase in pre-industrial levels, such as extreme weather, rising sea levels, and diminishing Arctic sea ice. Global warming is likely to reach 1.5°C above pre-industrial levels between 2030 and 2052 if it continues to increase at the current rate. Some of the impacts due to ongoing global warming could be avoided by limiting future global warming to 1.5°C compared to 2°C. For example, by limiting global warming to 1.5°C or lower, the likelihood of an Arctic Ocean free of sea ice in summer would be ten

times lower compared to the likelihood under the scenario of 2°C increase. Beyond the 1.5°C threshold, there would be significant increases in the risk associated with long-lasting or irreversible changes, such as the loss of ecosystems. The IPCC states that in order to limit the global warming to 1.5°C, rapid transitions are needed in land, energy, industry, building, transport, and urban sectors to reach the goal of carbon neutrality by 2050, which means that the Earth's production of GHG emissions each year would be removed completely through carbon offsetting, sequestration, or other means (IPCC, 2018).

In 2006, the California State Legislature passed the California Global Warming Solutions Act (Assembly Bill [AB] 32), which requires the California Air Resources Board (CARB) to develop and implement regulatory and market mechanisms that will reduce GHG emissions to 1990 levels by 2020. In 2016, the State Legislature adopted Senate Bill (SB) 32, which requires further reduction of GHG emissions to 40 percent below the 1990 level by 2030. In addition, Executive Order S-3-05 set a GHG reduction goal of 80 percent below 1990 levels by 2050. In September 2019, the City of Alameda adopted the Climate Action and Resiliency Plan (CARP), which identifies initiatives to reduce citywide GHG emissions by 50 percent below 2005 baseline levels by 2030. The CARP's goals and actions satisfy the requirements for achieving the GHG reduction goals of AB 32 and provide a framework to achieve the GHG reductions consistent with SB 32 and Executive Order S-3-05. The CARP continues the GHG reduction actions identified in the City's Local Action Plan for Climate Protection in 2008, and proposes new actions focusing on transportation, building management, carbon sequestration, and waste management. The CARP also established climate change adaptation and resiliency goals to protect the City's assets from sea level rises, flooding, drought, and other climate hazards.

The proposed project is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of Bay Area Air Quality Management District (BAAQMD). In 2010, the BAAQMD developed and adopted GHG thresholds of significance that were incorporated into the BAAQMD's 2017 CEQA Air Quality Guidelines (BAAQMD, 2017b). The GHG thresholds are designed to help lead agencies in the SFBAAB evaluate potential environmental impacts from GHG emissions for new projects and meet GHG emission reduction goals, such as those contained in AB 32. Therefore, the BAAQMD's thresholds of significance were used in this CEQA analysis.

IMPACT EVALUATION

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

Less Than Significant Impact

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, and would generate long-term GHG emissions through project operations related to the direct and indirect use of fossil fuels such as electricity, diesel, and gasoline.

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, 2009). A construction contractor has 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. Furthermore, the idling times for off-road construction equipment would be limited to a maximum idling time to 5 minutes, as required by the CARB's Airborne Toxic Control Measure to reduce emissions from diesel-fueled vehicles (Title 13, Section 2485 of California Code of Regulations). Therefore, GHG emissions during project construction would have a less-than-significant impact on the environment.

Operation of the proposed new building would generate direct and indirect GHG emissions. The proposed new building would replace two existing buildings built in 1968 and 1989, respectively, and result in a net increase of approximately 3,600 square feet of building space on the project site. The BAAQMD CEQA Air Quality Guidelines include screening levels for criteria air pollutant emissions from projects of certain land uses. As shown in **Table 12**, the net increase in operational size that would result from the project is below the applicable screening levels from the BAAQMD CEQA Air Quality Guidelines. Furthermore, because the State's Building Energy Efficiency Standards became increasingly stringent from 1989 to present, new construction would be more energy efficient and result in fewer GHG emissions compared to older buildings. For example, new non-residential buildings based on the 2019 Building Energy Efficiency Standards consume, overall, approximately 37 percent less electricity and 26 percent less natural gas compared to the same buildings built to the 2005 Building Energy Efficiency Standards (California Energy Commission, 2007, 2013, 2015, 2018). The project would replace two buildings built three or more decades ago and therefore would likely result in energy savings at even greater magnitudes than mentioned above. Although the project would result in an approximate 11 percent increase in building square footage, the project's energy and GHG savings would offset the increase in building square footage. Therefore, the project would not generate a net increase in GHG emissions that would have a significant impact on the environment.

TABLE 12 GREENHOUSE GAS EMISSIONS SCREENING LEVEL SIZES

Land Use Type	Project Size (Net Increase)	Operational Criteria Pollutant Screening Size
Junior College (Two-Year)	3,600 square feet	28,000 square feet
Exceed Threshold?		No

Source: CalEEMod (see Appendix B).

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

Less Than Significant Impact

The BAAQMD's threshold of significance was designed to ensure compliance with the state's AB 32 GHG reduction goals, as set forth in the CARB's Climate Change Scoping Plan. Since the GHG emissions from the project would have a less-than-significant impact on the environment, it can be assumed that the project would be consistent, and not in fundamental conflict, with the AB 32 Scoping Plan. Furthermore, the project would not conflict with the GHG reduction actions identified in the City of Alameda's CARP. For example, because the project would not result in a net increase in traffic, the project would not conflict with any of the transportation actions under the CARP. The remaining CARP

actions, which relate to land use, energy, waste and recycling, and community outreach and education, are citywide initiatives that do not apply to individual projects. Therefore, the project would have a less-than-significant impact related to applicable plans, policies, and regulations for GHG emission reductions in the SFBAAB.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. 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?	❒	❒	■	❒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 0.25 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 2 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 EVALUATION

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

Less Than Significant Impact

Hazardous materials (e.g., fuel, oils, solvents, and paints) would be routinely transported, stored, and used at the project site during construction activities. During project operation, the routine transport, storage, use, and disposal of hazardous materials associated with vehicle fueling and repair/maintenance would also occur. The routine transportation, use, and disposal of hazardous materials could pose health and safety hazards to construction workers, employees, and students if the hazardous materials are improperly handled and could result in exposure to the hazardous materials through inhalation of vapors, direct contact with skin, or accidental ingestion. The routine storage and use of hazardous materials at the project site could also present a risk to the surrounding public if airborne emissions of hazardous materials are not appropriately controlled. (The transport, use, or disposal of these hazardous materials could also pose a hazard to the public or environment if the hazardous materials were accidentally spilled or released into the environment. This possibility is evaluated under Item (b) below.)

Because the project would result in greater than 1 acre of land disturbance, management of hazardous materials during construction activities would be subject to the requirements of the Construction General Permit (described in detail in Section X, *Hydrology and Water Quality*), which requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that includes hazardous materials storage requirements. For example, construction site operators must store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

Operation of the project would be subject to existing regulatory programs for hazardous materials. The Alameda County Department of Environmental Health (ACDEH) is designated as the Certified Unified Program Agency (CUPA) for the City of Alameda, and coordinates the regulation of hazardous materials and hazardous wastes in Alameda through the following programs:

- Hazardous Materials Business Plan (HMBP) Program and reporting through the California Environments Reporting System (CERS)
- Hazardous Waste Generator Program
- Underground Storage Tank (UST) Program
- Above Petroleum Storage Act Program
- California Accidental Release Prevention (CalARP)

The role of a CUPA is to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities associated with the regulation of hazardous materials and hazardous wastes. Businesses that store or use hazardous materials in the City of Alameda are required to submit chemical and facility information through CERS, which is a statewide web-based system to support CUPAs in electronically collecting and reporting various hazardous materials-related data as mandated by the California Health and Safety Code and 2008 legislation (Assembly Bill [AB] 2286). Chapter 6.95 of Division 20 of the California Health and Safety Code requires that an HMBP be submitted to the local CUPA if on-site hazardous materials exceed in aggregate any of the following: 55 gallons for liquids; 500 pounds for solids; or 200 cubic feet of gases at standard temperature and pressure. HMBPs are required to be submitted electronically through CERS and must include business activities, business owner/operator identification, a hazardous materials inventory, a site map, an emergency response/contingency plan, evacuation routes, and an employee training plan. Each hazardous material and/or hazardous waste in a reportable quantity must be included in the hazardous materials inventory. The HMBP must be submitted every year, or updated and submitted within 30 days of any substantial change in facility operations (ACDEH, 2020).

A facility that generates hazardous waste must follow federal and state hazardous waste laws to ensure that hazardous waste is properly managed to protect public health and the environment. A facility that generates any amount of hazardous waste in the City of Alameda must obtain a permit through the ACDEH. The role of the ACDEH is to inspect businesses for compliance with the Hazardous Waste Control Act and applicable regulations; verify hazardous waste accumulation, labeling, container and tank management standards, and waste generator status; respond to complaints of illegal disposal of hazardous waste; and issue permits and inspects businesses that treat hazardous waste.

The project would be required to comply with existing regulations described above for the storage and disposal of hazardous materials including the HMBP Program and Hazardous Waste Generator Program. As described in further detail in Section X, *Hydrology and Water Quality*, the project would be required to comply with existing regulations regarding stormwater management and discharge control, which would prevent project operations from contributing hazardous materials to stormwater runoff.

The project would result in the emissions of hazardous materials into the air due to routine storage and use of hazardous materials including petroleum products and products containing volatile organic compounds (VOCs), such as paints and solvents. As discussed in detail in Section III, *Air Quality*, compliance with existing Bay Area Quality Management District (BAAQMD) regulations would ensure that storage and use of hazardous materials during operation of the project would result in less-than-significant impacts related to the exposure of the public, including nearby sensitive receptors (e.g., the College of Alameda Children's Center, schools, and residences), to airborne emissions of hazardous materials from the project site.

Worker health and safety is regulated at the federal level by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA). OSHA regulations include training requirements for construction workers and a requirement that hazardous materials are accompanied by manufacturer's Safety Data Sheets (SDSs). The Federal Occupational Safety and Health Act of 1970 authorizes states to establish their own safety and health programs with OSHA approval. Worker health and safety protections in California are regulated by the California Department of Industrial Relations (DIR). The DIR includes the Division of Occupational Safety and Health (DOSH), which acts to protect workers from safety hazards through its California OSHA (Cal/OSHA) program. Cal/OSHA regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials. California standards for workers dealing with hazardous materials are contained in California Code of Regulations (CCR) Title 8 and include practices for all industries (General Industrial Safety Orders), and specific practices for construction and other industries. The routine transport, use, and disposal of hazardous materials at the project site during operation and construction activities would be required to comply with CCR Title 8, which would reduce potential health hazards for workers due to the routine transport, use, or disposal of hazardous materials to a less-than-significant level.

The transportation of hazardous materials is subject to United States Department of Transportation (USDOT), Resource Conservation and Recovery Act (RCRA), and state regulations. In 1990 and 1994, the federal Hazardous Material Transportation Act was amended to improve the protection of life, property, and the environment from the inherent risks of transporting hazardous material in all major modes of commerce. The USDOT developed hazardous materials regulations, which govern the classification, packaging, communication, transportation, and handling of hazardous materials, as well as employee training and incident reporting. The California Highway Patrol, the California Department of Transportation (Caltrans), and the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC) are responsible for enforcing federal and state regulations pertaining to the transportation of hazardous materials. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill), and is responsible for the discharge cleanup. Construction and operation of the project would result in the generation of various waste materials that would require recycling and/or disposal, including some

waste materials that may be classified as hazardous waste. Hazardous wastes would be required to be transported by a licensed hazardous waste hauler and disposed of at facilities that are permitted to accept such materials as required by USDOT, RCRA, and state regulations.

Compliance with the existing hazardous materials regulations described above, including requirements of the HMBP Program and Hazardous Waste Generator Program, OSHA and Cal/OSHA regulations, BAAQMD Regulations, CCR Title 8, and USDOT, RCRA, state, and local regulations, would ensure that potential impacts related to the routine transport, storage, use, or disposal of hazardous materials would be less than significant.

b) Would the 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?

Less Than Significant with Mitigation Incorporated

The public and/or the environment could be affected by the accidental release of hazardous materials from the project site into the environment if (1) leakage, spills, or improper disposal of hazardous materials occurred during construction or operation of the project; (2) hazardous building materials were disturbed and released into the environment during demolition of the existing structures; or (3) contaminated soil or groundwater on the project site were disturbed during construction or structures were placed over contaminated soil or groundwater, potentially affecting indoor air quality.

Leakage, Spills, or Improper Disposal of Hazardous Materials

An accidental release of hazardous materials (e.g., oils, fuels, solvents, or paints) during project construction could result in exposure of construction workers, the public, and/or the environment to hazardous materials. As discussed under Item (a) above, construction of the project would be subject to the requirements of the Construction General Permit, which requires preparation and implementation of a SWPPP and BMPs to reduce the risk of spills or leaks reaching the environment, including procedures to address minor spills of hazardous materials. Measures to control spills, leakage, and dumping must be addressed through structural as well as nonstructural BMPs, as required by the Construction General Permit. For example, equipment and materials for cleanup of spills must be available on-site, and spills and leaks must be cleaned up immediately and disposed of properly. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

As discussed under Item (a) above, compliance with the existing hazardous materials regulations would ensure that hazardous materials used during project construction and operation would be appropriately stored, transported, and disposed of and, if an accidental spill or leak of hazardous materials occurs, appropriate response actions would be taken to clean up the accidental release. Therefore, potential impacts related to leakage, spills, or improper disposal of hazardous materials would be less than significant.

Demolition of Existing Structures

Asbestos is a known human carcinogen that was commonly used in building materials until the early 1980s. In 1989, the U.S. Environmental Protection Agency (EPA) issued a final rule banning most asbestos-containing products. In 1991, this regulation was overturned and, as a result of the Court's decision, the 1989 asbestos regulation only bans new uses of asbestos in products that would be initiated *for the first time* after 1989 and bans the following specific asbestos-containing products: flooring felt; rollboard; and corrugated, commercial, or specialty paper (EPA, 2020). Asbestos-containing products remain in use within the United States, and include some roof and non-roof coatings and other asbestos-containing building materials (EPA, 2017).

BAAQMD Regulation 11-2-303.8 requires that, prior to commencement of any demolition or renovation, the owner or operator must thoroughly survey the affected structure or portion thereof for the presence of asbestos-containing material. The survey must be performed by a person who is certified by the Division of Occupational Safety and Health, has taken and passed an EPA-approved Building Inspector course, and conforms to the procedures outlined in the course. The survey must include sampling and the results of laboratory analysis of the asbestos content of all suspected asbestos-containing materials. This survey must be made available, upon request by the Air Pollution Control Officer, prior to the commencement of any regulated asbestos-containing materials removal or any demolition. If asbestos-containing materials are identified, the disturbance/removal and management of the materials must be performed in accordance with BAAQMD Regulations under Rule 11-2 to ensure that asbestos would not be released into the environment (BAAQMD, 1998).

Prior to 1978, lead compounds were commonly used in exterior and interior paints. Due to the health effects of lead-based paint, its application on residential structures was banned in 1978; however, lead-based paint can be found in commercial or industrial structures, regardless of construction date (DTSC, 2006). If lead paint is present on structures to be demolished or renovated, the stabilization and/or removal of lead paint would be required in accordance with applicable laws and regulations, including but not necessarily limited to Cal/OSHA's Construction Lead Standard, Title 8 CCR Section 1532.1, and California Department of Health Services (DHS) regulation 17 CCR Sections 35001 through 36100, as may be amended.

Polychlorinated biphenyls (PCBs) were used as coolants and lubricants in transformers, capacitors, heating/cooling equipment, hydraulic oil (including in hydraulic lifts), and other electrical equipment, and were also used as plasticizers in paints, plastics, rubber products, and caulking. Although manufacturing of PCBs has been banned in the United States since 1979, they may still be found in older electrical equipment and other building materials such as light ballasts and caulking. PCBs have been demonstrated to cause cancer and a variety of other adverse health effects in animals, including effects on the immune system, reproductive system, nervous system, and endocrine system. PCBs or PCBs-contaminated items require proper off-site transport and disposal at a facility that can accept such wastes, in accordance with the Toxic Substances Control Act of 1976 and other federal and state regulations. PCBs in manufactured materials such as caulking may also move directly into adjoining materials, particularly porous materials such as wood, concrete, and other types of masonry (EPA, 2015a).

The EPA believes that there was potential widespread use of PCB-containing building materials in buildings built or renovated between about 1950 and 1979. The EPA recommends PCB testing for caulk and other building materials before their removal, to determine protections needed during removal and proper disposal requirements (EPA, 2015b).

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials (including mercury, a heavy metal) are regulated as "universal wastes" by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of other hazardous wastes is governed by DTSC hazardous waste rules.

Because the project site is regulated under the ACDEH's HMBP Program and Hazardous Waste Generator Program, the removal of automotive-related hazardous materials and cleanup of structures and surfaces that may be have been contaminated by automotive-related hazardous materials (e.g., hazardous materials storage areas, sumps, oil/water separators, battery storage areas) must be performed under ACDEH oversight prior to the closure of the existing auto facilities and demolition of the existing structures on the project site.

Building B was constructed in 1968 and Building E was constructed in 1989. It is possible that hazardous building materials including ACMs, lead paint, PCBs, and universal wastes are present in structures to be demolished at the project site. While electrical equipment and lighting ballasts that may contain PCBs can be readily identified, PCB-containing building materials such as caulking, specialized paints, mastics, and other adhesives would require testing to evaluate whether these materials contain PCBs. The potential for the project to release hazardous building materials into the environment is a significant impact.

Impact HAZARDS-1: Building demolition included in the project could result in the release of hazardous building materials into the environment. (PS)

The project contractor would be required to properly handle and dispose of electrical equipment, lighting ballasts, and other building materials that may be identified as containing PCBs, in accordance with the Toxic Substances Control Act and other federal and state regulations; however, if testing for hazardous building materials is not performed prior to demolition activities, hazardous building materials could be released into the environment during demolition.

> *Mitigation Measure HAZARDS-1: Before demolition of the existing structures at the project site, a comprehensive Hazardous Building Materials Survey (HBMS) for the project site shall be prepared and signed by a qualified environmental professional. The HBMS shall document the presence or lack thereof of asbestos-containing materials, lead-containing paint and other lead-containing materials, PCB-containing equipment and materials, and any other hazardous building materials. The HBMS shall include abatement specifications for the stabilization and/or removal of the identified hazardous building materials in accordance with all applicable laws and regulations. The demolition contractor(s) shall implement the abatement specifications and submit to the Peralta Community College District evidence of completion of abatement activities prior to demolition of the existing structures. (LTS)*

Implementation of Mitigation Measure HAZARDS-1 would ensure that potential impacts related to accidental releases of hazardous building materials due to building demolition would be less than significant.

Soil and Groundwater Contamination

Before the 1900s, the project site was part of the tidal flats and marshland of San Francisco Bay just off the shoreline of Alameda peninsula. In the late 1800s and early 1900s, before the health effects of industrial pollution were known, two industries nearby dumped their waste into the water. Much of the petroleum-related waste, classified as polynuclear aromatic hydrocarbons (PAHs), settled in the marsh surrounding the shoreline of Alameda peninsula. PAH contamination created the "marsh crust" layer, which is a thin layer of PAHs and oil believed to come from historical waste discharged before placement of fill over marsh areas (Basics Environmental, 2020). Based on the latest City of Alameda Marsh Crust Map (City of Alameda, 2000), the project site falls outside the zone subject to the Marsh Crust Ordinance (Ordinance No. 2824), which requires a permit for excavation below a depth where marsh crust may be encountered; however, it appears that this is because the College of Alameda campus is outside of the jurisdiction of the City of Alameda, and not because the marsh crust layer is not present beneath the College of Alameda campus. Based on mapping of the depth to the marsh crust performed in 2009 (ERM, 2009), it appears that the marsh crust layer extends beneath the College of Alameda campus and that the marsh crust layer could be present at a depth of approximately 2 to 6 feet beneath the project site. Therefore, the hazardous materials-contaminated marsh crust could be encountered in the subsurface of the project site during subsurface construction activities.

The following information was obtained from a Fuel Leak Site Case Closure Letter issued by the ACDEH for the College of Alameda in 1997 (ACDEH, 1997). In 1991, five USTs and associated piping were removed from the College of Alameda campus, including:

- A 550-gallon gasoline UST and a 225-gallon waste oil UST that were removed from within the project site in the area northwest of Building B;
- A 4,000-gallon diesel UST and a 10,000-gallon diesel UST that were removed from immediately north of the project site in the area where Building S is currently located; and
- A 325-gallon gasoline UST that was removed from an area approximately 400 feet north of Building E where a maintenance building and yard were formerly located.

Approximately 400 cubic yards of soil were removed and disposed of at a landfill during the UST removal activities. Holes were noted in the 225-gallon waste oil UST when it was removed, and concentrations of petroleum hydrocarbons and fuel-related volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected in soil and groundwater samples collected from the UST excavations. Between 1992 and 1994, five groundwater monitoring wells were installed in the area northwest of Building B. In 1996, underground hydraulic hoists were removed from Building B and petroleum hydrocarbons were detected in soil and groundwater samples that were collected to evaluate whether hydraulic fluid had leaked from the hoists. Periodic groundwater monitoring was performed between 1992 and 1996, and the most significant impacts from petroleum hydrocarbons and BTEX in groundwater were detected in monitoring wells located on the

project site adjacent to the northwest portion of Building B. The concentration of BTEX in groundwater decreased with time and was non-detectable between 1994 and 1996; however, residual concentrations of petroleum hydrocarbons in the diesel and motor oil range remained in groundwater to the northwest of Building B and were suspected to be partially related to leakage of hydraulic oil. The groundwater flow direction was found to be predominantly to the northwest (away from Building B), but ranged from northeast to northwest, and was also noted to be toward the east and southeast (toward Building B) in 1992. Based on the monitoring results, which demonstrated minimal migration of contaminants away from the locations of release, the ACDEH closed the leaking UST (LUST) case in 1997.

Although the LUST case was closed, residual contaminated soil and groundwater could be present in the area of the former USTs, associated piping (some of which could not be removed due to presence of utilities and structures), and hydraulic lifts. Additionally, old hydraulic oil can contain PCBs; however, analysis of PCBs was not performed for soil and groundwater samples collected during removal of the hydraulic hoists. Soil and groundwater at the project site could also contain previously unidentified contamination related to (1) past placement of fill material of unknown quality, and (2) past uses of hazardous materials at the project site that may have resulted in subsurface contamination if unidentified leaks or spills occurred.

A Phase I Environmental Site Assessment (ESA) was prepared for the project site in May 2020 to evaluate the potential for the presence of hazardous or toxic chemicals in the soil and/or groundwater resulting from past and present land use (Basics Environmental, 2020). The Phase I ESA included the following conclusions:

- Due to the unknown nature of the fill material used to fill the project site area, there is a potential for hazardous materials from unknown fill material to be present in the subsurface of the project site.
- Hazardous materials (miscellaneous lubricants, coolants, paints, cleaners/solvents, compressed gasses, etc.) have been used on-site as part of the automotive and diesel curriculum, and it is conceivable that soil and/or groundwater beneath the project site may have been impacted by inadvertent discharges of hazardous material. Given the likely use of appreciable amounts of hazardous materials as part of vehicle maintenance operations for an extended period of time (approximately 45+ years), this possibility would warrant further investigation.
- The project site was inspected by the ACDEH on July 18, 2013. Hazardous materials were used on-site as part of the automotive and diesel curriculum; therefore, the proper permit fees, labels, secondary containment, and Hazardous Materials Management Plan (HMMP) were required. Subsequently, an HMMP was submitted in 2013.
- In June 2017, several hazardous materials violations were noted during an inspection conducted by the ACDEH. Many of these violations were noted as being corrected during a follow-up inspection in October 2018. In November 2019, the College of Alameda failed to complete and electronically submit chemical inventory information for all reportable hazardous materials on-site at or above reportable quantities.
- Following the removal of former USTs, piping, hydraulic lifts, and associated contaminated soil from the project site in the 1990s, residual impacts from petroleum hydrocarbons remained in soil and groundwater in the area of Building B.

The Phase I ESA recommended that further investigation and/or documentation of the project site be performed based on the obvious evidence of environmental conditions discussed above.

Impact HAZARDS-2: Due to known and potential contamination in the project site subsurface, project construction and placement of structures on the site would pose a risk of releasing hazardous materials into the environment. (PS)

Due to the presence of known contamination and the potential for unidentified contaminated soil and/or groundwater to be present at the project site, the project could result in the spreading of contamination in groundwater through various actions, including (1) constructing new utilities through areas of contamination that could serve as preferential pathways for contaminant migration in groundwater, (2) re-using contaminated soil as fill material at depths below the groundwater table, or (3) placing the proposed stormwater bio-infiltration pond in an area of contamination. The disturbance of contaminated soil and/or groundwater during construction activities could also result in impacts on the public or environment if contaminant-laden dust or vapors are released into the environment. Also, placing structures over areas of soil and groundwater contamination could result in impacts on indoor air quality due to vapor intrusion.

> *Mitigation Measure HAZARDS-2: Prior to building demolition, grading, or construction of the project, the Peralta Community College District shall engage with a qualified environmental professional to perform a Phase II Environmental Site Assessment (ESA) to investigate areas of known or potential contamination identified in the Phase I ESA prepared for the project site by Basics Environmental, dated May 12, 2020, as well as the potential presence of a petroleum hydrocarbon- and polynuclear aromatic hydrocarbon (PAH)-impacted soil layer (also known as "marsh crust") beneath the project site.*
>
> *A Phase II ESA Report shall be prepared by a qualified environmental professional to document the findings of the Phase I ESA and shall include recommendations for remedial action, if necessary, to protect human health and the environment. The Peralta Community College District shall implement the recommendations for remedial action and obtain approval for any proposed remedial action and required clearances from the applicable local, state, or federal regulatory agency.*
>
> *A Soil and Groundwater Management Plan (SGMP) shall be prepared by a qualified environmental professional to outline soil and groundwater management protocols that shall be implemented during project construction to ensure that construction workers, the public, future site occupants, and the environment would not be exposed to hazardous materials that may be present in the subsurface of the project site. The SGMP shall be reviewed and approved by the applicable local, state, or federal regulatory agency prior to project construction. (LTS)*

Implementation of Mitigation Measure HAZARDS-2 would ensure that potential impacts related to accidental releases of hazardous materials associated with known and potential soil and groundwater contamination would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Less Than Significant with Mitigation Incorporated

The handling or emission of hazardous or acutely hazardous materials near schools must consider potential health effects on children. The Children's Center at the College of Alameda is located immediately west of the project site, across Campus Loop Road. Alameda Science and Technology Institute (a high school) is located on the College of Alameda campus just north of the project site (Building B). Ruby Bridges Elementary School is located at 351 Jack London Avenue, approximately 1,000 feet northwest of the project site; The Academy of Alameda (elementary school and middle school) is located at 401 Pacific Avenue, approximately 0.25 mile southwest of the project site; and Island High School (a continuation school) is located at 500 Pacific Avenue, approximately 0.25 mile south of the project site. No other schools were identified within 0.25 mile of the project site (California Department of Education, 2020).

Acutely hazardous materials would not be handled at the project site during project construction or operation. As discussed under Item (a) above, the routine storage and use of hazardous materials during construction and operation would be performed in accordance with applicable laws and regulations that would ensure that the project would result in less-than-significant impacts related to the exposure of nearby sensitive receptors (including the Children's Center and schools) to emissions from hazardous materials from the project site. As discussed under Item (b) above, compliance with existing regulations and implementation of Mitigation Measures HAZARDS-1 and HAZARDS-2 would ensure that any accidental release of hazardous materials during project construction and operation would have a less-than-significant impact on the surrounding public, including nearby schools.

d) Would the 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?

Less Than Significant with Mitigation Incorporated

The provisions of Government Code Section 65962.5 require the DTSC, the State Water Resources Control Board, the DHS, and the California Department of Resources Recycling and Recovery (formerly the California Integrated Waste Management Board) to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, LUST sites, and/or hazardous materials releases to the Secretary of Cal/EPA. As discussed under Item (b) above, hazardous materials have been released on the project site, and the project site has been designated as a LUST case. The project site is therefore included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, also known as the "Cortese List" (CalEPA, 2020). As discussed under Item (b), implementation of Mitigation Measure HAZARDS-2 would ensure that the project would result in a less-than-significant impact related to past hazardous materials releases that have affected the subsurface of the project site; therefore, with implementation of Mitigation Measure HAZARDS-2, the project would result in less-than-significant impacts related to the project site being included on a list of hazardous materials release sites compiled pursuant to Government Code Section 65962.5.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?

Less Than Significant Impact

The project site is located approximately 4 miles northwest of the Oakland International Airport, which is the closest airport to the project site. The project site is not located within the Airport Influence Area of the Oakland International Airport (Alameda County Community Development Agency, 2010) or within 2 miles of any airports (Federal Aviation Administration, 2020). Therefore, potential impacts from aviation-related noise or safety hazards would be less than significant.

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

Less Than Significant Impact

The project would remove the existing on-site segment of College Way, which permits emergency vehicle access along the south side of the campus. The project would remove the connection of College Way to Campus Loop Road, and a new pedestrian promenade that would serve as a fire lane would be constructed along the north side of the proposed new building. This pedestrian promenade/fire lane would provide emergency vehicle access from Campus Loop Road. As discussed under Item (a) above, the HMBP that would be prepared for the project would include an emergency response/contingency plan and evacuation routes. Based on the project design, the project would have a less-than-significant impact on the implementation of any emergency response and evacuation plans.

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

Less Than Significant Impact

California Department of Forestry and Fire Protection (CAL FIRE) maps identify fire hazard severity zones in state and local responsibility areas for fire protection. The project site is not located within or near a very high fire hazard severity zone in a state or local responsibility area (CAL FIRE, 2008). The project site is in a highly developed urban area. Vegetation on the project site is relatively minimal, consisting primarily of grassy areas and a few trees, and therefore would not be considered susceptible to wildfire. Therefore, the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and the impact would be less than significant.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. 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 off-site;	❒	❒	■	❒
(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 seiches 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?	❒	❒	■	❒

BACKGROUND

The project site is located in the North Alameda Watershed, which covers much of the central and northeastern portion of the City of Alameda. This watershed drains into the Oakland Inner Harbor and

Tidal Canal, which are connected to San Leandro Bay and San Francisco Bay. Runoff from the project site is conveyed through an underground storm drain system that discharges into the Oakland Inner Harbor to the north of the project site (Alameda County Flood Control and Water Conservation District, 2014).

IMPACT EVALUATION

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

Less Than Significant Impact

Construction activities related to the project would involve grading and excavation of soil, which could result in erosion and movement of sediments into receiving waters, particularly during precipitation events. The potential for chemical releases is present at most construction sites due to the use of paints, fuels, lubricants, and other hazardous materials associated with construction activities. Once released, these hazardous materials could be transported to nearby surface waterways in stormwater runoff, wash water, and dust control water, potentially reducing the quality of the receiving waters. The release of sediments and other pollutants during construction could also adversely affect water quality in receiving waters.

The project would disturb more than 1 acre of land and therefore would be required to obtain coverage under the State Water Resources Control Board (State Water Board) Construction General Permit (State Water Board, 2013a). On-site construction activities subject to the Construction General Permit include clearing, grading, excavation, and soil stockpiling. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. A SWPPP is required to identify all potential pollutants and their sources, including erosion and exposure of construction materials to runoff, and must include a list of best management practices (BMPs) to reduce the discharge of construction-related stormwater pollutants. A SWPPP must include a detailed description of controls to reduce pollutants and outline maintenance and inspection procedures. Typical sediment and erosion BMPs include protecting storm drain inlets, establishing and maintaining construction exits, and perimeter controls. A SWPPP also defines proper building material staging and storage areas, paint and concrete washout areas, proper equipment/vehicle fueling and maintenance practices, measures to control equipment/vehicle washing water runoff, and allowable non-stormwater discharges, and includes a spill prevention and response plan.

Groundwater dewatering may be required during construction activities involving excavation. Dewatering effluent may have high turbidity and could contain contaminants. Turbid and/or contaminated groundwater could cause degradation of the receiving water quality if the effluent is discharged directly to storm drains without treatment. Any groundwater dewatering would be limited in duration (i.e., during construction) and the discharge of dewatering effluent would be subject to permits from the East Bay Municipal Utility District (EBMUD) or the Regional Water Quality Control Board (Regional Water Board), depending on whether the discharge were to the sanitary sewer or storm drain system, respectively. Discharges to EBMUD's facilities must occur under a Special Discharge Permit

and require application of treatment technologies or BMPs that would result in achieving compliance with the wastewater discharge limits.

Under existing state law, it is illegal to allow unpermitted non-stormwater discharges to receiving waters. As stated in the Construction General Permit, non-stormwater discharges directly connected to receiving waters or the storm drain system have the potential to cause negative impacts on water quality. The discharger must implement measures to control all non-stormwater discharges during construction and discharges from dewatering activities associated with construction. Discharging any pollutant-laden water from a dewatering site or sediment basin into any receiving water or storm drain that would cause or contribute to an exceedance of applicable water quality standards is prohibited.

The Construction General Permit allows the discharge of dewatering effluent if the source of the water is uncontaminated groundwater and is properly filtered or treated, using appropriate technology. These technologies include, but are not limited to, retention in settling ponds (where sediments settle out prior to discharge of water) and filtration using gravel and sand filters (to mechanically remove the sediment). If the dewatering activity is deemed by the Regional Water Board not to be covered by the Construction General Permit, the discharger could potentially prepare a Report of Waste Discharge and, if approved by the Regional Water Board, be issued site-specific Waste Discharge Requirements (WDRs) under National Pollutant Discharge Elimination System (NPDES) regulations. Site-specific WDRs contain rigorous monitoring requirements and performance standards that, when implemented, ensure that receiving water quality is not substantially degraded. The discharge of dewatering effluent is authorized under the Construction General Permit if the following conditions are met:

- The discharge does not cause or contribute to a violation of any water quality standard;
- The discharge does not violate any other provision of the Construction General Permit;
- The discharge is not prohibited by the applicable Basin Plan;
- The discharger has included and implemented specific BMPs required by the Construction General Permit to prevent or reduce the contact of the non-stormwater discharge with construction materials or equipment;
- The discharge does not contain toxic constituents in toxic amounts or (other) significant quantities of pollutants;
- The discharge is monitored and meets the applicable numeric action levels; and
- The discharger reports the sampling information in the annual report.

If any of the above conditions are not satisfied, the discharge of dewatering effluent is not authorized by the Construction General Permit. The discharger must notify the applicable Regional Water Board of any anticipated non-stormwater discharges not already authorized by the Construction General Permit or another NPDES permit, to determine whether a separate NPDES permit is necessary. If it is infeasible to acquire site-specific WDRs or meet EBMUD's sewer discharge requirements, the construction contractor would be required to transport the dewatering effluent off-site for treatment and disposal. Compliance with the existing regulations described above regarding the discharge of groundwater to sanitary sewer or stormwater systems would ensure that potential dewatering discharges would result in less-than-significant impacts on water quality.

Operation period municipal stormwater discharges in the City of Alameda are regulated under the San Francisco Bay Regional Water Board's Phase I Large Municipal Separate Storm Sewer Systems (MS4s) Municipal Regional Permit (MRP) (San Francisco Bay Regional Water Board, 2015). While the MRP is overseen by the Regional Water Board, compliance with the requirements of the MRP is the responsibility of local municipalities, and is enforced through the review and approval of project plans during the permitting of projects by local municipalities. The Peralta Community College District is not subject to permitting requirements of local municipalities, and the District is also not listed as a non-traditional permittee on the Phase II Small MS4s General Permit issued by the State Water Board (State Water Board, 2013b); however, the project would be subject to the post-construction requirements of the Construction General Permit. The Construction General Permit includes post-construction stormwater performance standards that address water quality and channel protection for projects that are not in an area subject to post-construction standards of an active Phase I or II MS4 Permit with an approved Stormwater Management Plan. The Construction General Permit requires post-construction runoff to match pre-construction runoff for the 85th-percentile storm event, which not only reduces the risk of impacts on the receiving water's channel morphology but also provides some protection of water quality by reducing the potential for erosion and siltation. The Construction General Permit also requires implementation of post-construction BMPs to reduce pollutants in stormwater discharges that are reasonably foreseeable after all construction phases have been completed, and establishment of a long-term maintenance plan. Compliance with the post-construction requirements of the Construction General Permit must be demonstrated by submitting a map and post-construction runoff calculation worksheets with the Notice of Intent to the State Water Board (State Water Board, 2013a). The District proposes to control and treat post-construction stormwater runoff by directing runoff into pervious areas and a bioretention area that would retain and treat stormwater prior to the discharge of runoff to the City's stormwater drainage system.

Compliance with the requirements of the Construction General Permit would ensure that the project would result in less-than-significant impacts 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?

Less Than Significant Impact

The project site is located within the Santa Clara Valley East Bay Plain groundwater basin (San Francisco Bay Regional Water Board, 2017), which is designated as a "medium priority" groundwater basin under the Sustainable Groundwater Management Act (California Department of Water Resources, 2020a), and a sustainable groundwater management plan has not been established for the Santa Clara Valley East Bay Plan Basin (California Department of Water Resources, 2020b). The project is not anticipated to require substantial dewatering during construction and would not use groundwater during operation of the project. While the project would increase impervious surface area, which can reduce infiltration and groundwater recharge, stormwater runoff from the project site would be directed to pervious areas and a bioretention area, and therefore would still have the opportunity to infiltrate the ground surface and recharge groundwater. Therefore, the project would result in less-than-significant impacts related to decreasing groundwater supplies, interfering with groundwater recharge, and impeding sustainable groundwater management of the basin.

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 off-site; (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?

Less Than Significant Impact

The project would not alter the course of a river or stream. The project would create new impervious area and could increase runoff, but the impact would be less than significant.

Erosion or Siltation

Stormwater runoff form the project site would continue to be discharged through storm drain pipes that discharge into the Oakland Inner Harbor; therefore, stormwater discharges from the site would not result in erosion of unlined creeks or drainage channels. Compliance with the requirements of the Construction General Permit, including implementation of a SWPPP during construction and implementation of post-construction BMPs for stormwater discharges, would ensure that the project would result in less-than-significant impacts related to erosion and sedimentation.

Increased Runoff Resulting in Flooding or Exceeding the Capacity of Stormwater Drainage Systems

Compliance with the requirements of the Construction General Permit, including controlling post-construction runoff using a bioretention area to match pre-construction runoff for the 85th-percentile storm event, would ensure that the project would result in less-than-significant impacts related to increased runoff.

Additional Sources of Polluted Runoff

Compliance with the requirements of the Construction General Permit and treatment of stormwater runoff from the project site in a bioretention area would ensure that the project would not result in additional sources of polluted runoff.

Impeding or Redirecting Flood Flows

The project site is located in an area of minimal flood hazard (i.e., not within 100-year or 500-year flood hazard zones) as mapped by the Federal Emergency Management Agency (FEMA, 2020), and the project site does not include any drainage courses or low-lying areas that could be susceptible to flooding. Therefore, potential impacts related to impeding or redirecting flood flows would be less than significant.

d) In flood hazard, tsunami, or seiches zones, would the project risk release of pollutants due to project inundation?

Less Than Significant Impact

As discussed above, the project site is located in an area of minimal flood hazard (i.e., not within 100-year or 500-year flood hazard zones) as mapped by FEMA (2020).

A seiche is a wave action caused by the oscillation of a body of water. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors and may be triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunami, or tides. Coastal measurements of sea level often show seiches with amplitudes of a few centimeters and periods of a few minutes due to oscillations of the local harbor, estuary, or bay, superimposed on the normal tidal changes. Triggering forces that set off a seiche are most effective if they operate at specific frequencies relative to the size of an enclosed basin. Due to the basin geometry and dimensions of San Francisco Bay, seiches pose a negligible hazard to the San Francisco Bay Area (Borrero, Jose, et al., 2006). Therefore, potential project impacts associated with seiche inundation would be less than significant.

Tsunamis are long-period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. Tsunamis affecting the San Francisco Bay Area would originate west of the Bay in the Pacific Ocean. A tsunami entering the Bay through the relatively narrow Golden Gate Strait would dissipate as the wave energy spreads out into the Bay. The project site is located within (but near the boundary of) a mapped tsunami inundation area that covers much of the City of Alameda (California Emergency Management Agency, 2009).

The ground surface elevation of the project site currently ranges from approximately 13 to 18 feet referenced to the North American Vertical Datum of 1988 (NAVD88), with the average ground surface elevation of the project site being roughly 15 feet NAVD88. The finished floor elevation of the proposed building would be 16 feet NAVD88 (JK Architecture Engineering, 2020). The boundary of the mapped tsunami inundation area is located approximately 800 feet south of the project site, and the ground surface elevation along the boundary of the mapped tsunami inundation area is similar to (and in some areas lower than) the elevation of the project site (California Emergency Management Agency, 2009). Additionally, a Tsunami Evacuation Zone map prepared by the United States Geological Survey (USGS) indicates that the project site is located in an area that would only be evacuated for a large tsunami (USGS, 2020). Based on the information above, the potential depth of tsunami inundation at the project site would be expected to be minimal. Additionally, hazardous materials stored at the project site would be contained in sealed containers in accordance with hazardous materials storage regulations as discussed above in Section IX, *Hazards and Hazardous Materials*. The potential for the release of pollutants due to tsunami inundation would therefore be less than significant.

In April 2017, the Working Group of the California Ocean Protection Council Science Advisory Team (OPC-SAT) developed *Rising Seas in California: An Update on Sea-Level Rise Science*, which provides the scientific foundation for a pending update to the Sea Level Rise Guidance Document.

OPC-SAT (2017) reported the following likely ranges of sea level rise for San Francisco Bay that have about a 2-in-3 chance of containing the correct value:

- 0.3 to 0.5 foot by 2030
- 0.6 to 1.1 feet by 2050
- 1.0 to 3.4 feet by 2100

Based on review of sea level rise inundation areas mapped by the National Oceanic and Atmospheric Administration (NOAA, 2020), the area of proposed improvements on the project site would not be inundated by 7 feet or less of sea level rise. Therefore, the potential for coastal flooding hazards at the project site to be exacerbated by sea level rise would be less than significant.

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

Less Than Significant Impact

As discussed under Item (b) above, the project site is located within the Santa Clara Valley-East Bay Plain groundwater basin (Regional Water Board, 2017), which is designated as a "medium priority" groundwater basin under the Sustainable Groundwater Management Act (California Department of Water Resources, 2020a), and a sustainable groundwater management plan has not been established for the Santa Clara Valley East Bay Plan Basin (California Department of Water Resources, 2020b). Therefore, the project would not conflict with or obstruct a sustainable groundwater management plan.

The applicable water quality control plan for the project site is the Regional Water Board's San Francisco Bay Basin Water Quality Control Plan (Basin Plan) (San Francisco Bay Regional Water Board, 2017). As discussed above, stormwater runoff from the project site drains to the Oakland Inner Harbor, which is connected to San Leandro Bay and San Francisco Bay. The Basin Plan identifies the Oakland Inner Harbor as a water body with beneficial uses of estuarine habitat, wildlife habitat, water contact and noncontact recreation, and navigation. San Leandro Bay and San Francisco Bay are listed in the Basin Plan as providing the beneficial uses of commercial and sport fishing, estuarine habitat, fish migration, preservation of rare and endangered species, wildlife habitat, water contact and noncontact recreation, and navigation. San Francisco Bay is also listed as providing the beneficial uses of industrial service water supply, shellfish harvesting, and fish spawning. Compliance with existing regulations, as described under Item (a) above, would ensure that the project would not result in significant impacts on water quality that could conflict with the water quality goals and beneficial uses of water bodies established in the Basin Plan. Therefore, the project would result in less-than-significant impacts related to conflicting with or obstructing implementation of a water quality control plan.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	❒	❒	❒	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❒	❒	❒	■
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	❒	❒	❒	■

IMPACT EVALUATION

a) Would the project physically divide an established community?

No Impact

The Transportation Technology Center would be constructed in an area of the College of Alameda campus that is undeveloped except for Building B (which would be demolished), a narrow roadway, parking, and informal landscaping. No established community would be physically divided.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact

The entire College of Alameda campus, of which the project site is a part, is designated in the City of Alameda General Plan as "Public/Institutional/Schools" (see **Figure 9**). The proposed Transportation Technology Center would be a part of the college and would conform to this land use designation. The project would also conform to the existing zoning for the site, which is R-4, Neighborhood Residential.

As mentioned in Chapter I, Project Description, pursuant to California Government Code Section 53094, the governing board of a school district may render city or county zoning ordinances and general plan requirements inapplicable to projects related to the provision of classroom facilities. For this project, the Peralta Community College District plans to adopt a resolution pursuant to Government Code Section 53094 exempting the project and the campus from any zoning ordinances or regulations of the City of Alameda (where the project is located), including, without limitation, the City's Municipal Code, the City's General Plan, and related ordinances and regulations that otherwise would be applicable.

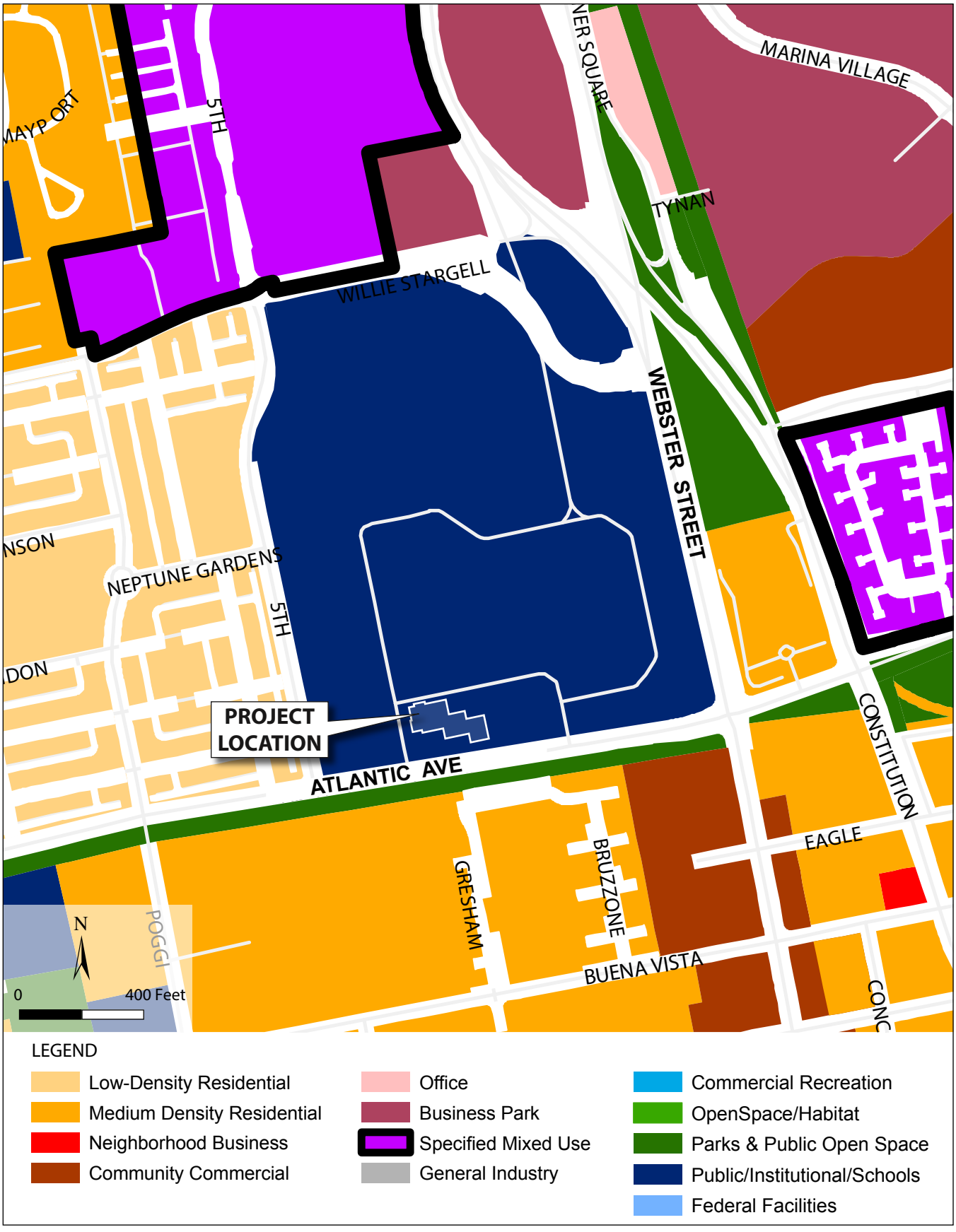

Figure 9

SOURCE: City of Alameda, 2020

CITY OF ALAMEDA GENERAL PLAN

That said, the City of Alameda Zoning Ordinance allows public schools within the R-4, Neighborhood Residential zoning district and the college use conforms with the City's General Plan designation (City of Alameda, 2020a and 2020b). Chapter 6 of the City's General Plan briefly mentions the College of Alameda but does not include specific policies regarding the college (City of Alameda, 2020c).

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact

No habitat conservation plans or natural community conservation plans apply to the project site (City of Alameda, 2020d).

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	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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 EVALUATION

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?

No Impact

The College of Alameda campus has not been identified in the City's General Plan as a site of known mineral resources (City of Alameda, 2020). The project would therefore have no impact on such resources.

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?

No Impact

Refer to Item (a) above.

REFERENCES

City of Alameda, 2020. Alameda General Plan, Chapter 5. Available at: https://alamedaca.gov/sites/default/files/document-files/files-inserted/general_plan_ch5.pdf, accessed August 10.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. 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 ground borne vibration or ground borne 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 2 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?	❒	❒	❒	■
d) 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?	❒	❒	■	❒

BACKGROUND

Noise Concepts and Terminology

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). Technical terms used to describe noise are defined in **Table 13.**

TABLE 13 DEFINITIONS OF ACOUSTICAL TERMS

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound on a logarithmic scale. Sound described in decibels is usually referred to as sound or noise "level." This unit is not used in this analysis because it includes frequencies that the human ear cannot detect.
Vibration Decibel (VdB)	A unit describing the amplitude of vibration on a logarithmic scale.
Frequency (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. For this CEQA evaluation, L_{eq} refers to a one-hour period unless otherwise stated.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels during the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured during the night between 10:00 PM and 7:00 AM.
Maximum Sound Level (L_{max})	The maximum A-weighted sound level measured by the sound level meter over a given period of time.
L_n	The sound pressure level exceeded for n percent of the time. For n percent of the time, the fluctuating sound pressure levels are higher than the Ln level.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Peak Particle Velocity (PPV)	The maximum instantaneous peak of a vibration signal.
Root Mean Square (RMS) Velocity	The average of the squared amplitude of a vibration signal.

Sources: Charles M. Salter Associates Inc., 1998; FTA, 2018,

It should be noted that because decibels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. For instance, if one noise source emits a sound level of 90 dBA, and a second source is placed beside the first and also emits a sound level of 90 dBA, the

combined sound level is 93 dBA, not 180 dBA. When the difference between two co-located sources of noise is 10 dBA or more, the higher noise source dominates and the lower noise source makes no perceptible difference in what people can hear or measure. For example, if the noise level is 95 dBA, and another noise source is added that produces 80 dBA noise, the noise level will still be 95 dBA.

In an unconfined space, such as outdoors, noise attenuates with distance according to the inverse square law. Noise levels at a known distance from point sources are reduced by 6 dBA for every doubling of that distance for hard surfaces such as cement or asphalt surfaces, and 7.5 dBA for every doubling of distance for soft surfaces such as undeveloped or vegetative surfaces (Caltrans, 2013a). Noise levels at a known distance from line sources (e.g., roads, highways, and railroads) are reduced by 3 dBA for every doubling of the distance for hard surfaces and 4.5 dBA for every doubling of distance for soft surfaces (Caltrans, 2013a). A greater decrease in noise levels can result from the presence of intervening structures or buffers.

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 (Charles M. Salter Associates Inc., 1998; Caltrans, 2013a):

- A change of 1 dBA cannot typically be perceived, except in carefully controlled laboratory experiments;
- A 3-dBA change is considered a just-perceivable difference;
- A minimum of a 5-dBA change is required before any noticeable change in community response is expected; and
- A 10-dBA change is subjectively perceived as approximately a doubling (or halving) in loudness.

Groundborne Vibration Concepts and Terminology

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. Several different methods are used to quantify vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment. 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 also often described in vibration decibels (VdB).

Noise-Sensitive Receptors in Project Site Vicinity

Sensitive receptors are defined as land uses where noise-sensitive people may be present or where noise-sensitive activities may occur. Examples of noise-sensitive land uses include residences,

schools, hospitals, churches, or public library properties.[7] There are potential noise-sensitive receptors located both on-campus and off-campus. Detailed information regarding the noise-sensitive receptors is provided in **Table 14** below. Distances are measured from the receptors to the locations where (1) the proposed building and the three external yards would be constructed, (2) pile driving could occur, (3) Building B would be demolished, and (4) Building E would be demolished.

Neptune Park is located to the east of the project site. However, Neptune Park is not designated as a walk/bike trail, a recreation center, or a picnic area where a quiet noise environment is normally expected because noise could be objectionable to users (City of Alameda, 2020a, 2020b, and 2020c). In addition, Neptune Park can be expected to be exposed to high ambient noise under existing conditions because it adjoins major roadways on two sides (Webster Street to the west and Constitution Way to the east). For these reasons, it is unlikely that noise-sensitive users would be located at Neptune Park. Therefore, Neptune Park is not regarded as a noise-sensitive receptor for the purposes of this analysis.

Ambient Noise Environment

The primary sources of noise in the vicinity of the project site are traffic along Atlantic Avenue (Ralph Appezzato Memorial Parkway), which runs east to west adjacent to the project site. Based on the future noise contour map for the year 2035 in the City of Alameda General Plan, traffic noise levels would range from 70 to 74 dBA CNEL at the project site and its vicinity in 2035 (City of Alameda, 2017). Since a large increase in growth that could lead to substantial increases in traffic is not anticipated in the area, for the purpose of this analysis, the existing noise levels at the project site and its vicinity are assumed to be the same as those shown on the General Plan's 2035 noise contour map.

Classroom activities are also sources of noise at the project site. However, because classroom activities are dominated by people talking and are mainly indoors, it is not expected that classroom activities would significantly contribute to the existing ambient noise levels, which are dominated by traffic noise and range from 70 to 74 dBA CNEL. Under the existing condition, the project site is occupied by Building B and Building E, which serve the Automotive Technology program and the Diesel and Truck Mechanics program. Due to closure of schools in response to COVID-19, site-specific measurements that would be representative of non-COVID school open conditions could not be collected when the analysis was prepared. The following assumptions are made for this analysis: (1) the operation of Building B and Building E could generate some outdoor noise (e.g., from operation of tools for auto repair); and (2) the generation of outdoor noise associated with activities occurring at Building B and Building E is limited in frequency and duration, and therefore traffic noise ranging from 70 to 74 dBA CNEL, is still the dominant noise at the project site and its vicinity.

[7] As indicated in the City of Alameda Municipal Code 4-10.4 Exterior Noise Standards, land uses such as residences, schools, hospitals, churches, or public library properties are more sensitive to noise than commercial properties and therefore are regarded as noise-sensitive receptors in this analysis.

TABLE 14 DISTANCES FROM PROJECT TO NEAREST NOISE-SENSITIVE RECEPTORS

		Direction in Which Each Receptor Is Located and Distance between Each Receptor and Locations Where:[a]			
Category	**Receptor[b]**	**The Proposed Building and the Three External Yards Would Be Constructed**	**Pile Driving Could Occur[c]**	**Building B Would Be Demolished**	**Building E Would Be Demolished**
On-campus	Building B (contains classrooms)	50 feet to the north	50 feet to the north	N/A	N/A
	Building E (contains classrooms)	880 feet to the northeast	920 feet to the northeast	N/A	N/A
	Proposed building	N/A	N/A	50 feet to the south	920 feet to the southwest
	Building P (contains school offices)	240 feet to the north	240 feet to the north	25 feet to the north	875 feet to the southwest
	Building S (Alameda Science and Technology Institute that contains classrooms)	240 feet to the north	240 feet to the north	25 feet to the north	810 feet to the southwest
	Building C/D (contains school offices)	275 feet to the north	275 feet to the north	25 feet to the north	350 feet to the southwest
	Building A (contains school offices)	150 feet to the northeast	205 feet to the northeast	60 feet to the east	600 feet to the southwest
	Children's Center (contains preschool)	90 feet to the west	125 feet to the west	195 feet to the northeast	1,185 feet to the southwest
	Building L (contains Library)	240 feet to the northeast	300 feet to the northeast	370 feet to the southeast	585 feet to the southwest
	Cougar Village (contains classrooms)	605 feet to the northeast	605 feet to the northeast	490 feet to the northeast	150 feet to the south
	Building F (contains school offices)	445 feet to the northeast	490 feet to the northeast	480 feet to the east	400 feet to the southwest
	Building H (contains classrooms and school offices)	585 feet to the northeast	640 feet to the northeast	595 feet to the northeast	285 feet to the south
Off-campus	Residences along Atlantic Avenue (Ralph Appezzato Memorial Parkway)	150 feet to the south	235 feet to the south	470 feet to the south	1,100 feet to the south
	Residences along Webster Street	920 feet to the east	1,000 feet to the east	1,100 feet to the east	470 feet to the southeast
	Rodeway Inn	585 feet to the southeast	670 feet to the southeast	890 feet to the southeast	1,125 feet to the south
	Peter Pan Preschool	1,695 feet to the northeast	1,695 feet to the northeast	1,540 feet to the northeast	630 feet to the northeast

Note: N/A = not applicable. It is assumed that Building B and Building E would be demolished at the same time. Therefore, impacts on Building B or Building E when demolishing the other building are not considered

[a] Distances are measured based on the aerial imagery on Google Earth. The shortest distances are rounded to the nearest 5 feet, and therefore are considered conservative.

[b] The existing use of campus buildings and their associated names are indicated on the Campus Map. Available at: https://alameda.peralta.edu/wp-content/uploads/2020/03/campus-map-3-8-20.pdf, accessed August 5, 2020.

[c] It is assumed that pile driving would occur at the proposed building footprint.

Source: College of Alameda, 2020.

Regulatory Setting

California Noise Control Act

Sections 46000 to 46080 of the California Health and Safety Code codify the California Noise Control Act (CNCA) of 1973. The CNCA established the Office of Noise Control under the California Department of Health Services. The CNCA requires that the Office of Noise Control adopt, in coordination with the Office of Planning and Research, guidelines for the preparation and content of noise elements for general plans. The most recent guidelines are contained in the General Plan Guidelines published by the California Office of Planning and Research in 2017 (Governor's Office of Planning and Research, 2017). The document provides land use compatibility guidelines for cities and counties to use in their general plans in order to reduce conflicts between land use and noise.

California Building Standards Code

The 2019 California Building Standards Code specifies that buildings containing non-residential uses that are exposed to exterior noise levels at or above 65 dBA L_{eq} or CNEL shall maintain interior noise level below 50 dBA L_{eq} in occupied areas during any hour of operation (California Code of Regulations, Title 24, Part 11, Section 5.507). An acoustical analysis documenting compliance with this interior sound level is required. The noise metric used (either L_{dn} or CNEL) shall be consistent with the noise element of the local general plan (California Code of Regulations, Title 24, Part 2, Vol. 1, Section 1206.4).

California Occupational Safety and Health Administration (Cal/OSHA)

Noise exposure of construction workers is regulated by the Cal/OSHA. Title 8, Subchapter 7, Group 15, Article 105 of the California Code of Regulations (Control of Noise Exposure) sets noise exposure limits for workers and requires employers who have workers that may be exposed to noise levels above these limits to establish a hearing conservation program, make hearing protectors available, and keep records of employee noise exposure measurements. The Cal/OSHA also requires backup warning alarms that activate immediately upon reverse movement on all vehicles that have a haulage capacity of 2.5 cubic yards or more (Title 8, California Code of Regulations). The backup alarms must be audible above the surrounding ambient noise level at a distance of 200 feet. In order to meet this requirement, backup alarms are often designed to emit a sound as loud as 82 to 107 dBA L_{max} at 4 feet (NCHRP, 1999).

City of Alameda General Plan

The following relevant policies are contained within the City of Alameda General Plan Safety and Noise Element (City of Alameda, 2017):

- SN-53. Require compliance with the California Building Code requirements to ensure appropriate interior noise levels in new or replacement residential construction, hotels, motels, and schools.
- SN-56. Require noise reduction strategies in all construction projects. Require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g., pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If

applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage to structures will occur and disturbance to sensitive receptors would be minimized.

- SN-57. In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be "significant" if the proposed project causes: an increase in the L_{dn} noise exposure of 4 or more dBA if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1 [of the General Plan], or any increase in L_{dn} of 6 dBA or more.

Alameda Municipal Code

Section 4-10 of the Alameda Municipal Code provides noise regulations in the City of Alameda, and contains the following relevant subsections:

4-10.4 Exterior Noise Standards sets forth specific maximum exterior noise levels at different receiving land uses (**Table 15**).

TABLE 15 EXTERIOR NOISE STANDARDS [DBA]

Cumulative Number of Minutes in Any 1-Hour Time Period	Single- or Multiple-Family Residential, School, Hospital, Church, or Public Library Properties		Commercial Properties	
	Daytime (7:00 AM–10:00 PM)	Nighttime (10:00 PM–7:00 AM)	Daytime (7:00 AM–10:00 PM)	Nighttime (10:00 PM–7:00 AM)
30 (L_{50})	50	50	65	60
15 (L_{25})	60	55	70	65
5 (L8.33)	65	60	75	70
1 (L1.67)	70	65	80	75
0 (Lmax)	75	70	85	80

Note: Ln = The sound pressure level exceeded for n percent of the time. For n percent of the time, the fluctuating sound pressure levels are higher than the Ln level. For example, for L_{50}=50 dBA means that 50 percent of the time the fluctuating sound pressure levels are higher than 50 dBA. Lmax = The maximum A-weighted sound level measured by the sound level meter over a given period of time.
Source: Alameda Municipal Code Section 4-10.4.

4-10.5 Prohibited Acts

b. Specific Prohibitions. The following acts, and the causing or permitting thereof, are a violation of this section:

10. Construction. Construction other than during the following hours: 7:00 AM to 7:00 PM Mondays through Fridays and 8:00 AM to 5:00 PM on Saturdays (with other exceptions that do not apply to the proposed project).

4-10.7 Special Provisions (Exceptions)

e. Construction. The provisions of this section shall not apply to noise sources associated with construction provided the activities take place between the hours of 7:00 AM to 7:00 PM. Mondays through Fridays or 8:00 AM to 5:00 PM on Saturdays.

Significance Criteria

Construction Noise Thresholds

Based on the Alameda Municipal Code, noise levels associated with construction occurring between the hours of 7:00 AM to 7:00 PM, Mondays through Fridays, and between 8:00 AM to 5:00 PM on Saturdays would be exempt from the City's maximum exterior noise levels (see Table 15) established by the Alameda Municipal Code. However, any noise levels above the City's maximum exterior noise levels (Table 15) associated with construction occurring outside of these timeframes would have a significant impact.

For the purpose of this analysis, a 10 dBA L_{eq} increase in ambient noise levels during construction would be considered "substantial."[8] The ambient noise levels range from 70 to 74 dBA CNEL. This analysis conservatively assumes ambient noise levels of 70 dBA CNEL. As a result, the construction noise threshold would be greater than 80 dBA L_{eq} at the nearby sensitive receptors during construction period.

Operational Noise Thresholds

Based on the Alameda Municipal Code, the project would have a significant impact if exterior noise levels for school buildings or residences would exceed the following exterior noise standards (see Table 15):

- 50 dBA L_{50}/60 dBA L_{25}/65 dBA $L_{8.33}$/70 dBA $L_{1.67}$/75 dBA L_{max} during daytime (7:00 AM to 10:00 PM); and
- 50 dBA L_{50}/55 dBA L_{25}/60 dBA $L_{8.33}$/65 dBA $L_{1.67}$/70 dBA L_{max} during nighttime (10:00 PM to 7:00 AM).

City of Alameda General Plan Policy SN-53 requires compliance with the California Building Code requirements to ensure appropriate interior noise levels in new or replacement schools. Based on the 2019 California Building Code, the project would have a significant impact if interior noise levels exceed 50 dBA L_{eq}. An acoustical analysis documenting compliance with this interior sound level is required.

Based on City of Alameda General Plan Policy SN-57, the project would have a significant operational impact if it would cause (1) an increase in the L_{dn} noise exposure of 4 or more dBA if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated in Table 8-1 of the General Plan; or (2) any increase in L_{dn} of 6 dBA or more.[9]

Vibration Thresholds

The project would have a significant impact if it would exceed the Federal Transit Administration's recommended vibration thresholds to prevent disturbance to people (see **Table 16**) and damage to buildings (see **Table 17**) (FTA, 2018). Because impact pile driving may cause tens or hundreds of

[8] As indicated above, a 10-dBA increase is subjectively perceived as approximately a doubling in loudness.

[9] L_{dn} is the average A-weighted noise level during a 24-hour day. Because construction would not occur during nighttime hours, these thresholds are assumed to apply to operational phase of the project.

vibration events per day, the "frequent events" thresholds (Table 16) are conservatively used in this analysis. Specifically, the 72-VdB threshold is used for off-campus receptors where people normally sleep and the 75-VdB threshold is used for on-campus receptors where institutional land uses are primarily for daytime use. The potential vibration damage threshold of 0.3 in/sec PPV (Table 17) is used for both on-campus and off-campus buildings.

TABLE 16 VIBRATION CRITERIA TO PREVENT DISTURBANCE – ROOT MEAN SQUARE (RMS) (VIBRATION DECIBELS [VDB])

Land Use Category	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Buildings where vibration would interfere with interior operations	65	65	65
Residences and buildings where people normally sleep	72	75	80
Institutional land uses with primarily daytime use	75	78	83

[a] More than 70 vibration events of the same kind per day or vibration generated by a long freight train.
[b] Between 30 and 70 vibration events of the same kind per day.
[c] Fewer than 30 vibration events of the same kind per day.
Source: FTA, 2018.

TABLE 17 VIBRATION CRITERIA TO PREVENT DAMAGE TO STRUCTURES

Building Category	Peak Particle Velocity (PPV) (inches per second)	Root Mean Square (RMS) (Vibration Decibels [VdB])
Reinforced-concrete, steel or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Non-engineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA, 2018.

IMPACT EVALUATION

a) Would the 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?

Less Than Significant with Mitigation Incorporated

Construction-Period Noise

Construction Worker Exposure to Noise

Construction workers could be exposed to excessive noise from the heavy equipment used during construction of the project. However, as described above, noise exposure of construction workers is regulated by the Cal/OSHA. The construction contractor for the project would be subject to these regulations, and compliance with Cal/OSHA regulations (which include provision of hearing protection

devices) would ensure that the potential for construction workers to be exposed to excessive noise is less than significant.

Construction Hours

Construction activities associated with the project would be conducted between the hours of 7:00 AM to 7:00 PM. Mondays through Fridays, and 8:00 AM to 5:00 PM on Saturdays, which is consistent with the requirement in the Alameda Municipal Code. Noise levels associated with construction occurring in the above timeframe are exempted from the maximum exterior noise levels set by the Alameda Municipal Code. However, construction activities could still generate noise exceeding ambient noise levels at nearby sensitive receptors, as discussed below.

Construction Equipment Noise

Construction is expected to occur over a period of approximately 16 months, beginning in August 2021. Construction noise levels would vary from day to day, depending on a number of factors, including the quantity and condition of the equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence of absence of barriers, if any, between the noise source and receptor. Building B and Building E would be demolished after the construction of the proposed building. Pile driving, which can generate extreme levels of noise, may be used to provide foundation support for the proposed building. For this analysis, it is assumed that (1) both Building B and Building E would be occupied during the construction of the proposed building, and (2) after they are decommissioned, both Building B and Building E would be demolished at the same time.

Table 18 shows typical noise levels associated with various types of construction equipment that may be used during each phase of construction. A general assessment of construction noise includes the two noisiest pieces of equipment expected to be used in each construction phase (FTA, 2018). The combined noise levels of the two noisiest pieces of equipment and their backup alarms have been calculated to represent the noise impact from construction.[10] Table 18 also presents the buffer distances at which construction noise levels would be reduced below the 80 dBA L_{eq} threshold at the nearest sensitive receptors.

As shown in Table 18, activities associated with site preparation would generate noise levels as high as 94 dBA L_{eq} at 50 feet, mainly because of the use of an impact pile driver. Sensitive receptors located within 255 feet of an impact pile driver could be exposed to noise exceeding 80 dBA L_{eq}, which is considered a substantial increase over ambient noise levels. Based on the distances summarized in Table 14, the following on-campus and off-campus sensitive receptors would be located within the buffer distance where pile driving could occur: Building B, Building P, Building S, Building A, the Children's Center, and residences along Atlantic Avenue (Ralph Appezzato Memorial Parkway).

[10] Noise levels are calculated based on the following equation:
$(L = 10LOG10\left(\sum_{i=1}^{n} 10^{(\frac{Li}{10})}\right))$

TABLE 18 BUFFER DISTANCES FOR CONSTRUCTION NOISE THRESHOLD OF 80 DBA L_{EQ}

Construction Phase	Equipment	Reference Noise Level at 50 Feet (dBA L_{eq})[a]	Addition of Two Noisiest Pieces of Equipment at 50 Feet (dBA L_{eq})	Buffer Distance in Feet (Distance Beyond Which Effect Not Expected)[b]
Site Preparation	Impact pile driver	94	94	255
	Graders	81		
	Rubber Tired Dozers	81		
	Tractors/Loaders/Backhoes	76		
Grading	Graders	81	84	80
	Rubber Tired Dozers	81		
	Tractors/Loaders/Backhoes	76		
Building Construction	Cranes	77	81	60
	Forklifts	NA		
	Generator Sets	79		
	Tractors/Loaders/Backhoes	76		
	Welders	70		
Paving	Cement and Mortar Mixers	81	85	90
	Pavers	82		
	Paving Equipment	82		
	Rollers	78		
	Tractors/Loaders/Backhoes	76		
Architectural Coating	Air Compressors	76	76	35
Demolition	Concrete/Industrial Saws	83	85	90
	Rubber Tired Dozers	81		
	Skid Steer Loaders	76		
	Tractors/Loaders/Backhoes	76		

[a] Reference noise levels at 50 feet expressed in L_{eq} were calculated based on the reference noise levels expressed in L_{max} from the FHWA Highway Construction Noise Handbook (U.S. Department of Transportation, 2006), taking into account the acoustical usage factors also from the Handbook.
[b] Based on reference noise levels at 50 feet, the following propagation adjustment was applied to calculate buffer distances:
$dBA2 = dBA1 + 10 \log_{10}(D1/D2)^2$
Where:
dBA1 is the reference noise level at a specified distance (in this case 50 feet).
dBA2 is the calculated noise level.
D1 is the reference distance (in this case 50 feet).
D2 is the distance from the equipment to the receiver.
Source of Equation: Caltrans, 2013a.
Source: The types of construction equipment are based on the California Emissions Estimator Model (CalEEMod) equipment list (see document titled "CalEEMod Results and Health Risk Assessment" in Appendix B). Because the project would be located on a school site, backup alarms have been conservatively included in the assessment. Because pile driving is proposed as part of the project, a pile driver is included in the assessment.

As shown in Table 18, activities associated with grading, building construction, paving, and architectural coating would generate noise levels as high as 85 dBA L_{eq} at 50 feet. Sensitive receptors located within 90 feet of these activities could be exposed to noise exceeding 80 dBA L_{eq}, which is considered a substantial increase over ambient noise levels. These activities would be necessary for the construction of the proposed building and the three external yards. Based on the distances summarized in Table 14, the following on-campus sensitive receptors would be located within the buffer distance where the proposed building and the three external yards would be constructed: Building B and the Children's Center. No off-campus sensitive receptors would be exposed to substantial noise increases during these activities. While Building B is scheduled for demolition, this would not happen until after occupancy of the new building.

As shown in Table 18, activities associated with demolition would generate noise levels as high as 85 dBA L_{eq} at 50 feet. Sensitive receptors located within 90 feet of demolition could be exposed to noise exceeding 80 dBA L_{eq}, which is considered a substantial increase over ambient noise levels. Based on the distances summarized in Table 14, the following on-campus sensitive receptors would be located within the buffer distance where Building B would be demolished: the proposed building, Building P, Building S, Building C/D, and Building A. No on-campus sensitive receptors would be exposed to substantial noise increases during demolition of Building E. Also, no off-campus sensitive receptors would be exposed to substantial noise increase during demolition of Building B or Building E.

Construction-generated noise could expose both on-campus and off-campus sensitive receptors to a substantial increase in ambient noise levels during pile driving, and expose on-campus sensitive receptors to a substantial increase in ambient noise levels during other phases of construction. The implementation of the following mitigation measures would reduce the construction noise impact to a less-than-significant level.

Impact NOISE-1: Project construction could generate a substantial temporary increase in ambient noise levels in the project vicinity above levels existing without the project. (PS)

Mitigation Measure NOISE-1a: The Peralta Community College District shall retain a structural engineer or other qualified professional to evaluate and recommend alternative methods to impact pile driving for project components that require the installation of piles. If it is not feasible to avoid impact pile driving, a set of site-specific noise attenuation measures shall be prepared under the supervision of a qualified acoustical consultant to limit noise generated by impact pile driving. These attenuation measures shall be implemented during impact pile driving associated with pile installation. The site-specific noise attenuation measures shall include as many of the following control strategies, and any other effective strategies, as feasible:

1. *The construction contractor shall implement "quiet" pile-driving technology (such as pre-drilling of piles, sonic pile drivers, and the use of more than one pile driver to shorten the total pile driving duration), where feasible, with consideration of geotechnical and structural requirements and soil conditions.*

2. *For impact pile driving, the construction contractor shall use a pile cap or cushion block on metal piles, which can reduce the ringing noise from metal piles (these are commonly used).*

This method might only reduce the noise by 1 to 2 A-weighted decibels (dBA), but the annoyance factor of the noise would be dramatically reduced by minimizing the ringing.

3. *For impact pile driving, the construction contractor shall use a plywood/plexiglass shield or heavy sound curtain (Sound Transmission Class 20 or 2 pounds per square foot material or heavier) around the driver and top 5 feet of the pile to block line of sight to noise-sensitive receptors, where feasible and safe. This can reduce sound by 5 dBA or more. The use of a shield or sound curtain would be subject to site-specific safety conditions and may require a second crane.*

4. *A damping blanket wrapped tightly around pipe piles shall be used to reduce the characteristic resounding noise from impact driving pipe piles. This can achieve a 5-dBA reduction.*

5. *The construction contractor shall monitor the effectiveness of noise attenuation measures by taking noise measurements, at a distance of 100 feet, at least once per day during pile-driving.*

Mitigation Measure NOISE-1b: The construction contractor shall implement noise reduction measures to reduce noise impacts related to construction. Noise reduction measures include, but are not limited to, the following:

1. *Equipment and trucks used for project construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds), wherever feasible.*

2. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available; this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with required construction procedures.*

3. *Stationary noise sources shall be located as far from nearby receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures to provide equivalent noise reduction.*

Mitigation Measure NOISE-1c: The Peralta Community College District shall require the construction contractor to develop a set of procedures for tracking and responding to complaints received pertaining to construction vibration and noise and implement the procedures during construction. At a minimum, the procedures shall include:

1. *Designation of an on-site construction complaint and enforcement manager for the project;*

2. *Protocols specific to on-campus and off-campus receptors for receiving, responding to, and tracking received complaints; and*

3. *Maintenance of a complaint log that records received complaints and how complaints were addressed.*

Mitigation Measure NOISE-1d: Nearby residents, college students, and staff shall be informed by posting informational notices on the fence line of the construction site, nearby buildings, and classrooms. The notice shall state the date of planned construction activity and include the contact information of the construction complaint and enforcement manager identified in Mitigation Measure NOISE-1c.

Mitigation Measure NOISE-1e: To the maximum extent practicable, the construction contractor shall coordinate construction activities (particularly pile driving) so that they do not occur during established testing periods (e.g., finals week).

Mitigation Measures NOISE-1a through NOISE-1e require (1) the evaluation of alternative methods to impact pile driving and if, impact pile driving is unavoidable, site-specific noise attenuation measures, which could reduce impact pile driving noise by up to 11 to 12 dBA (from using a pile cap or cushion block on metal piles, using a shield or heavy sound curtain, and using a damping blanket wrapped tightly around pile piles); (2) implementation of noise reduction measures; (3) the development of a compliance tracking system, (4) notification of potentially affected residents, students, and staff of planned construction activities; and (5) scheduling of particularly noise-generating activities (e.g., pile driving) to avoid disrupting testing periods.

Off-campus receptors would be exposed to excessive construction noise during pile driving, but not during any of the other phases of construction. The total duration of pile driving is estimated to be less than a week,[11] and therefore would be of relatively short duration. The exposure of a given on-campus receptor to construction noise would be limited in duration because the location of construction equipment would vary throughout the day depending on the location where the noise-generating equipment is being used, and would also vary over the 16-month period of project construction. For these reasons, construction noise impacts from heavy equipment would be reduced to a less-than-significant level after implementation of Mitigation Measures NOISE-1a through NOISE-1e.

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

Noise from Construction Truck Trips

During construction, secondary sources of noise would include trucks hauling materials to and from the project site. Up to 69 truck trips per day could be generated during site preparation (the highest level of truck use during all project phases). These truck trips could generate noise levels of up to approxi-

[11] According to the California Emissions Estimator Model (CalEEMod) construction phase (see Appendix B).

mately 55.4 dBA L_{eq}.[12] As discussed above, the ambient noise levels range from approximately 70 to 74 dBA CNEL, which is well over 10 dBA more than noise from the anticipated truck trips. When the difference between two sources of noise is 10 dBA or more, the higher noise source dominates and the lower noise source makes no perceptible difference in what people can hear or instruments can measure. Consequently, the potential for construction truck trips to result in a substantial temporary increase in ambient noise levels is less than significant.

Operation-Period Noise

The project is intended to replace aging instructional facilities and would not increase the number of students or faculty on the campus. Therefore, the project would not introduce new traffic noise.

However, the project would include the use of new mechanical heating, ventilation, and air conditioning (HVAC) systems. Information regarding the project's HVAC systems was not available at the time when this analysis was prepared. Noise from HVAC systems could have the potential to exceed operational noise limits specified in the Alameda Municipal Code and result in a significant impact. Mitigation Measure NOISE-2 would ensure that appropriate controls on mechanical equipment are included in the project, reducing the impact to a less-than-significant level.

<u>Impact NOISE-2</u>: Project operation (mechanical equipment) has the potential to generate noise exceeding interior noise standards for school receptors specified in the City of Alameda General Plan and exterior noise standards specified in the Alameda Municipal Code. (PS)

> *<u>Mitigation Measure NOISE-2</u>: The Peralta Community College District shall use the services of an acoustic design consultant, mechanical equipment selection and acoustical shielding, placement of equipment in less-sensitive areas when feasible, and sound attenuators to ensure that noise levels from heating, ventilation, and air conditioning (HVAC) systems do not exceed the 50 dBA L_{eq} interior noise standard for school buildings and do not exceed the exterior noise standards of 50 dBA L_{50}/60 dBA L_{25}/65 dBA $L_{8.33}$/70 dBA $L_{1.67}$/75 dBA L_{max} during daytime (7:00 AM to 10:00 PM) and 50 dBA L_{50}/55 dBA L_{25}/60 dBA $L_{8.33}$/65 dBA $L_{1.67}$/70 dBA L_{max} during nighttime (10:00 PM to 7:00 PM) at the nearest school buildings and residences. Controls that would typically be incorporated to attain this outcome include locating equipment indoors or in less noise-sensitive areas when feasible, selecting quiet equipment, and providing sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures. (LTS)*

With the implementation of Mitigation Measure NOISE-2, noise levels from the HVAC system would not exceed 50 dBA L_{50} during daytime and nighttime. It is assumed that noise levels from HVAC systems would fluctuate very little, and therefore noise levels from HVAC in L_{eq} would approximate L_{50} and would not exceed 50 dBA L_{eq}. As discussed above, the existing ambient noise levels are expected to range approximately from 70 to 74 dBA CNEL, which is at least 10 dBA more than the mitigated noise levels from HVAC systems. When the difference between two sources of noise is 10 dBA or more, the higher noise source dominates and the lower noise source makes no perceptible difference in what

[12] Numbers of truck trips and duration are based on the California Emissions Model (CalEEMod) (see Appendix B). Traffic noise model outputs are included in Appendix B. FHWA TNM Version 2.5 model was used for these results.

people can hear or measure. Therefore, the potential of the project to cause a substantial permanent increase in ambient noise levels is less than significant.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant with Mitigation Incorporated

Project construction could result in varying degrees of groundborne vibration effects, depending on the equipment, activity, location of equipment operation at the project site, and relative proximity to sensitive receptors. Once constructed, the use of the project site would be similar to the existing use, and therefore the project would not exacerbate the existing condition and would not be expected to result in excessive vibration impacts.

Construction activities such as pile driving, the use of vibratory rollers, jackhammers or other high-power or vibratory tools, and mobile construction equipment can generate vibration in the immediate vicinity of the work area. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. **Table 19** presents published vibration levels at 25 feet from the types of construction equipment that could be used during construction of the project. Table 19 also presents the buffer distance that would be required to reduce vibration levels to below the 75-VdB threshold for on-campus receptors, the 72-VdB threshold for off-campus receptors, and the threshold of 0.3 in/sec PPV for both on-campus and off-campus buildings. The impacts associated with vibration disturbance and vibration damage are discussed in detail below.

Vibration Disturbance

As shown in Table 19, if an impact pile driver is used, vibration levels during construction could disturb on-campus receptors within approximately 428 feet and off-campus receptors within approximately 539 feet of construction activities (based on the 75-VdB threshold for on-campus receptors and the 72-VdB threshold for off-campus receptors). An impact pile driver could be used at the proposed building footprint during site preparation. Based on the distances summarized in Table 14, the following on-campus receptors would be located within 428 feet and the following off-campus receptors would be located within 539 feet of the proposed building where a pile driver could be used: Building B, Building P, Building S, Building C/D, Building A, the Children's Center, Building L, and residences along Atlantic Avenue (Ralph Appezzato Memorial Parkway).

During grading, building construction, paving, and architectural coating, the construction equipment that could generate the highest vibration level would be a vibratory roller. As shown in Table 19, a vibratory roller could disturb on-campus receptors within approximately 107 feet and off-campus receptors within approximately 135 feet of construction activities. As shown in Table 18, a vibratory roller would be used for paving, which could be associated with the construction of the proposed building and the three external yards. Based on the distances summarized in Table 14, the following on-campus receptors would be located within 107 feet from where a vibratory roller could be used: Building B and Children's Center. No off-campus sensitive receptors would be located within 135 feet.

TABLE 19 VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment		Reference PPV at 25 Feet[a] (in/sec)	Reference RMS at 25 Feet[b] (VdB)	Vibration Disturbance Thresholds: Required Buffer Distance – On-Campus Threshold 75 VdB (Feet)	Vibration Disturbance Thresholds: Required Buffer Distance – Off-Campus Threshold 72 VdB (Feet)	Vibration Damage Threshold: Required Buffer Distance – On-Campus and Off-Campus Threshold 0.3 in/sec (Feet)
Pile Driver (Impact)	upper range	1.518	112	428	539	109
	typical	0.644	104	232	291	50
Vibratory Roller		0.210	94	107	135	18
Hoe Ram		0.089	87	63	79	8.3
Large Bulldozer		0.089	87	63	79	8.3
Caisson Drilling		0.089	87	63	79	8.3
Loaded Trucks		0.076	86	58	73	7.2
Jackhammer		0.035	79	34	43	3.5
Small bulldozer		0.003	58	7	9	0.4

Note: Receptors within the buffer distance could be affected by construction-generated vibration. Receptors outside of the buffer distance would not be expected to be affected by construction-generated vibration.

[a] PPV = peak particle velocity, in/sec = inches per second

[b] RMS = root mean square, VdB = vibration decibel

PPV2 = PPV1 x (D1/D2)^1.1

Where:

PPV1 is the reference vibration level at a specified distance.
PPV2 is the calculated vibration level.
D1 is the reference distance (in this case 25 feet).
D2 is the distance from the equipment to the receiver.

Source of Equation: Caltrans, 2013b.

RMS2 = RMS1 – 30 Log10 (D2/D1)

Where:

RMS1 is the reference vibration level at a specified distance.
RMS2 is the calculated vibration level.
D1 is the reference distance (in this case 25 feet).
D2 is the distance from the equipment to the receiver.

Source of Equation: FTA, 2018. Section 7.

During demolition activities, the construction equipment that could generate the highest vibration level would be a large bulldozer. As shown in Table 19, a large bulldozer could disturb on-campus receptors within approximately 63 feet and off-campus receptors within approximately 79 feet of construction activities. Based on the distances summarized in Table 14, the following on-campus sensitive receptors would be located within 63 feet where Building B would be demolished: the proposed building, Building P, Building S, Building C/D, and Building A. No on-campus sensitive receptors would be located within 63 feet during demolition of Building E. Also, no off-campus sensitive receptors would be located within 79 feet during demolition of Building B or Building E.

Construction-generated vibration levels could disturb both on-campus and off-campus sensitive receptors during pile driving, and on-campus sensitive receptors during other phases of construction. The implementation of the following mitigation measures would reduce the vibration disturbance impact to a less-than-significant level.

Impact NOISE-3: Project construction could expose persons to or generate excessive groundborne vibration levels. (PS)

Mitigation Measure NOISE-3: The Peralta Community College District shall implement Mitigation Measures NOISE-1a, NOISE-1c, NOISE-1d, and NOISE-1e. These measures require (1) the evaluation of alternative methods to impact pile driving; (2) the development of a compliance tracking system; (3) notification of potentially affected residents, students, and staff of planned construction activities; and (4) scheduling of particularly vibration-generating activities (e.g., pile driving) to avoid disrupting testing periods.

For off-campus receptors, exceedance of vibration disturbance threshold could occur during pile driving activities, which would be completed within a week.[13] In addition, construction activities, including pile driving, would be conducted between the hours of 7:00 AM to 7:00 PM, Mondays through Fridays, and 8:00 AM to 5:00 PM on Saturdays, when people are not typically sleeping, and the noticeable vibration, if any, would be relatively short term. For these reasons, vibration impacts on off-campus receptors would be reduced to a less-than-significant level with the implementation of the required mitigation measures.

The degree to which a person is annoyed by vibration depends on the activity in which they are participating at the time of the disturbance. Vibration would be most annoying when it results in sleep disturbance. On-campus receptors are classrooms and school offices where sleep disturbance would not occur. Pile driving, which would generate the highest vibration levels, is estimated to last less than a week. Therefore, the exposure of most on-campus receptors to the highest vibration levels would be limited in time. In addition, the exposure of a given on-campus receptor to vibration in excess of the disturbance thresholds during other phases of construction would also be limited in duration because the location of construction equipment would vary throughout the day depending on the location where the vibration-generating equipment is being used, and would also vary over the 16-month period of construction of the project. For these reasons, vibration impacts on on-campus receptors would be reduced to a less-than-significant level after the implementation of the required mitigation measures.

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

Vibration Damage

As shown in Table 19, if an impact pile driver is used, vibration levels during construction could cause building damage at buildings within approximately 109 feet. Based on the distances summarized in Table 14, all of the off-campus buildings are located outside of the 109-foot buffer where vibration

[13] According to the California Emissions Estimator Model (CalEEMod) construction phase (see Appendix B).

damage could occur. Therefore, impacts related to vibration damage to off-campus buildings would be less than significant.

Building B is located within the 109-foot buffer and therefore could be subject to potentially damaging levels of vibration during construction of the project. However, consideration of damage to buildings on a developer's own property is a standard part of the design and review process for a development. This process would ensure that existing buildings remain in good condition both during and after construction of the project. In addition, Building B would be demolished after the construction of the project. Therefore, the potential for construction-generated vibration to result in damage to on-campus buildings is less than significant.

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 2 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?

No Impact

The project site is located approximately 4 miles northwest of the nearest public use airport, the Oakland International Airport. The project site is not located within the Airport Influence Area (Alameda County Community Development Agency, 2010). Based on review of federal airport records, there are no private airstrips within 2 miles of the project site (Federal Aviation Administration, 2020). In addition, the project would not introduce new residents or users to the campus. Therefore, the project would not expose people in the project area to excessive noise from any public use airport or any private airstrip.

d) Would the project result in 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?

Less Than Significant Impact

The proposed building would be located in areas where traffic noise levels range from approximately 70 to 74 dBA CNEL. A typical building facade with windows closed provides a noise level reduction of approximately 25 dBA (Charles M. Salter Associates Inc., 1998). For this reason, the noise levels inside of the proposed building are anticipated to be lower than the 50 dBA L_{eq} interior noise standards for schools specified in the City of Alameda General Plan. Therefore, the potential for the project to result in a significant environmental impact due to a conflict with any land use plan would be less than significant.

REFERENCES

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	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. 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 EVALUATION

a) Would the project induce substantial 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)?

No Impact

As stated in Chapter I, *Project Description*, no increase in students or faculty is expected as a result of the project, and the project is being constructed on an existing public community college campus. Thus, there would be no impact related to a substantial increase in population in the area, either directly or indirectly.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact

No existing housing would be displaced by the project.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact

No people would be displaced by the project. The project site is now occupied by two buildings (Buildings B and E), a campus road, and informal landscaping on an existing public community college campus. The project would replace Buildings B and E with a new Transportation Technology Center that would house the same programs that are currently offered in the two buildings.

REFERENCES

None.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) 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 EVALUATION

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?

Less Than Significant Impact

Since the project would not increase student, faculty, or staff population on the campus, it would not cause any substantial increase in demand for public services. Therefore, no new or altered fire, police, school, park, library, or other public facilities would be needed to serve the project, and no related environmental impacts of constructing such facilities would occur.

Fire Protection and Police Services

The campus is located within the Alameda city limits, an area served by the Alameda Police Department and the Alameda Fire Department. For police services on campus, the Peralta Community College District contracts with the Alameda County Sheriff's Office, which bases its Peralta Police Services at 333 East 8th Street in Oakland, about 2.5 miles northeast of the campus (Peralta Community College District, 2020; Alameda County Sheriff's Office, 2020). The closest Alameda Fire Department stations are Station No. 2, located at 635 Pacific Avenue about 0.5 mile south of the campus; and Station No. 3, located at 1620 Buena Vista Avenue about 1.8 miles east of the campus.

The project site would be served by existing emergency response personnel during construction, but any emergency response demands would not result in the need for new or altered facilities to be built. Since the project would not increase the population on the campus, no new fire or police facilities or staffing would be needed to serve the project. The project would be served by an existing fire hydrant near the northeast corner of the existing parking area and five new hydrants surrounding the proposed new building (JK Architecture Engineering, 2020). Changes to emergency access proposed by the project are addressed in Section IX, *Hazards and Hazardous Materials*, and Section XVII, *Transportation*, of this Initial Study. The State of California's Division of the State Architect would review the project to determine compliance with the California Building Code and fire safety requirements.

Schools

The project is not expected to create a need for new or altered public school facilities, since the project itself is intended to replace aging public school facilities on an existing public community college district campus and would not increase the campus population.

Parks

No new or altered parks are expected to be needed to serve the project, as the campus already contains recreational facilities and the project would not increase the population on the campus. City of Alameda recreational facilities in the vicinity include (1) Neptune Park, immediately east of the campus on the east side of Webster Street; and (2) the Alameda Beltline, located east of the campus on the south side of Atlantic Avenue at the southern terminus of Bartlett Drive (see Figure 7 in Chapter I, *Project Description*, of this Initial Study). The project would not change the level of use in these parks. Thus, the impact on park facilities is considered less than significant.

Other Public Facilities

No other public facilities such as libraries are expected to be affected by the project, as the campus population would not change as a result of the project.

REFERENCES

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Peralta Community College District, 2020. "Peralta Police Services Home." Available at: http://web.peralta.edu/police-services/, accessed July 15, 2020.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. 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 EVALUATION

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?

Less Than Significant Impact

Refer to the discussion above in Section XV, *Public Services*. The project would not cause substantial physical deterioration of parks or other recreational facilities, since the campus already contains recreational facilities and the project would not increase the student, faculty, or staff population on the campus. The impact would therefore be less than significant.

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?

Less Than Significant Impact

Refer to the discussion above in Section XV, *Public Services*. The project does not include construction or expansion of recreational facilities and would not require construction or expansion of off-site recreational facilities. The impact would therefore be less than significant.

REFERENCES

None.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. 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 150654.3, 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?	❒	❒	■	❒

IMPACT EVALUATION

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

No Impact

The project would not conflict with any programs, plans, ordinances, or policies related to transportation and circulation, including the Alameda County Transportation Plan, the City of Alameda General Plan, the Alameda Transportation Choices Plan, the Alameda Bicycle Master Plan, or the Alameda Pedestrian Master Plan.

The project would not result in any impacts on transit operations or roadway operations given that the project would not result in an increase in the campus population or changes to city streets.

The project would improve conditions for pedestrians internal to the campus by closing an existing roadway (Campus Way) to create a pedestrian promenade to the north of the proposed new building.

Additionally, the project would provide secure bicycle storage for two bicycles and a total of four two-bicycle capacity racks. These provisions would comply with the bicycle parking requirements for new educational buildings set forth in Alameda Municipal Code Section 30-7.15, which are as follows:

- **Long-Term Bicycle Parking**: 1 per 10 employees and 1 per 5 students of planned capacity.
- **Short-Term Bicycle Parking**: 1 per 3,000 square feet floor area or 1 per 20 students of planned capacity, whichever is greater.

The project would also conform with Section 5.106.4.2 of the California Green Building Standards Code, which requires the following:

- **Student Bicycle Parking** – Permanently anchored bicycle racks conveniently accessed with a minimum of four two-bicycle capacity racks per new building.
- **Staff Bicycle Parking** – Permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:
  - Covered, lockable enclosures with permanently anchored racks for bicycles;
  - Lockable bicycle rooms with permanently anchored racks; or
  - Lockable, permanently anchored bicycle lockers.

During project construction activities, construction workers would park at designated areas on the campus; construction personnel would not park on surrounding neighborhood streets. Construction-related traffic entering the project site would coincide with the AM commute peak hour (typically from 7:00 AM to 9:00 AM). However, construction traffic access and laydown areas would be on-site, so no impacts on traffic on public streets would be expected. Construction activity would be a temporary condition and would not create conflicts with any programs, plans, ordinances, or policies related to transportation and circulation.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

No Impact

Based on CEQA Guidelines Section 15064.3, Subdivision (b), vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. The project is not expected to increase the number of students or faculty on the campus, since it would replace two existing buildings with one building and would not result in land use changes on the campus. Thus, the project would not be expected to cause any change in VMT and would not conflict or be inconsistent with this CEQA Guidelines provision.

Additionally, according to the State of California Governor's Office of Planning and Research (OPR), projects within 0.5 mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant impact on VMT. OPR has defined a "major transit stop" as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency-of-service interval of 15 minutes or less during the morning and afternoon peak commute periods. A "high-quality transit corridor" means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

The existing high-quality Webster Avenue transit corridor, with northbound and southbound bus stops at Atlantic Avenue, contains a total of six AC Transit bus routes (the 20, 51A, 96, 851, O, and W routes). The project would be within 0.5 mile of this transit corridor and, as noted above, would not increase the number of students or faculty on the campus. Therefore, no impact to VMT would be expected to result.

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

No Impact

The project would not create any circulation hazards on the campus or on nearby city streets. Access to and egress from the campus via Atlantic Avenue would not be affected, and no changes to existing city streets would be required. The project would not create any hazards for pedestrian, bicycle, or transit circulation. Additionally, the removal of vehicular access via College Way would not result in an increase in hazards due to a geometric design feature or incompatible use.

d) Would the project result in inadequate emergency access?

Less Than Significant Impact

The project would provide adequate emergency access and would not affect on-site emergency access. Pursuant to the proposed project fire access plan, dated July 3, 2020 (JK Architecture Engineering, 2020), emergency access would be provided via Atlantic Avenue, the existing Campus Way roadway off Atlantic Avenue, and a pedestrianized Campus Way roadway from Campus Loop Road off Atlantic Avenue.

The project would result in the removal of an internal roadway (College Way), which would be replaced with a 24-foot-wide fire lane/pedestrian promenade along the north side of the proposed building. Removable bollards would be installed on both the east and west ends of the promenade to restrict vehicles from entering this area. In the event of an emergency, bollards would need to be unlocked with a key, which would be retrievable from a lock box on an adjacent post. Once the bollards are removed, fire trucks would be allowed access to the roadway and the fire hydrants that would surround the proposed building on both Atlantic Avenue and the proposed fire lane/pedestrian promenade. Emergency access to the proposed building would also be facilitated via a new parking area north and east of the building. This parking area would have access via the Campus Loop Road entrance to the campus from Atlantic Avenue.

Additionally, five new fire hydrants would be installed at the perimeter of the building along the fire truck path of travel on Atlantic Avenue and the proposed fire lane/pedestrian promenade, to supplement the one existing fire hydrant located at the intersection of the east-west and north-south segments of College Way.

REFERENCES

JK Architecture Engineering, 2020. "College of Alameda Transportation Technology Fire Access Plan," Drawing No. C1.0, July 3.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
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 this 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.	❒	❒	■	❒

IMPACT EVALUATION

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?

Less Than Significant Impact

Background

Assembly Bill (AB) 52, which became law on January 1, 2015, provides for consultation with California Native American tribes during the CEQA environmental review process, and equates significant impacts on "tribal cultural resources" with significant environmental impacts.

The consultation provisions of the law require that a public agency consult with local Native American tribes that have requested placement on that agency's notification list for CEQA projects. Within 14 days of determining that a project application is complete, or a decision by a public agency to undertake a project, the lead agency must notify tribes of the opportunity to consult on the project, should a tribe have previously requested to be on the agency's notification list. California Native American tribes must be recognized by the Native American Heritage Commission (NAHC) as traditionally and culturally affiliated with the project site, and must have previously requested that the lead agency notify them of projects. Tribes have 30 days following notification of a project to request consultation with the lead agency.

The purpose of consultation is to inform the lead agency in its identification and determination of the significance of tribal cultural resources. If a project is determined to result in a significant impact on an identified tribal cultural resource, the consultation process must occur and conclude prior to adoption of a Negative Declaration or Mitigated Negative Declaration, or certification of an Environmental Impact Report (Public Resources Code Sections 21080.3.1, 21080.3.2, and 21082.3).

Tribal Outreach

The NAHC in West Sacramento was contacted to review its Sacred Lands File to identify registered, Native American sacred sites in or near the project site. Sarah Fonseca, NAHC Cultural Resources Analyst, stated as follows in a letter (NAHC, 2020): "A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the North Valley Yokuts Tribe and the Ohlone Indian Tribe on the attached list for more information."

Neither the North Valley Yokuts Tribe nor the Ohlone Indian Tribe have requested, in writing, that the Peralta Community College District inform them of its projects that are subject to CEQA, consistent with California Public Resources Code Section 21080.3.1. As a result, the District is not required to consult with these tribes for this project.

No pre-contact archaeological deposits and Native American human remains have been identified in or near the project site. Furthermore, although the NAHC Sacred Lands File search was "positive," the NAHC database is not necessarily site-specific. In other words, the Sacred Lands File search indicates that a sacred site is reported in the vicinity, but that sacred site is not necessarily on the project site. Native American sites and human remains are reported in the City of Alameda, and it is possible that the "positive" result refers to these more distant resources.

For the reasons stated above, the District has determined that the project site is of low sensitivity for tribal cultural resources. The project would have a less-than-significant impact on reported tribal cultural resources that have been reported in the general area.

REFERENCES

Native American Heritage Commission (NAHC), 2020. *Auto/Diesel Center at College of Alameda Project, Alameda County,* May 14.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater 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 EVALUATION

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

Less Than Significant Impact

Existing Utility Lines

The campus receives water (combined domestic and fire hydrant service) through an 8-inch meter and 8-inch lateral tied to a 24-inch main in Webster Street east of the campus. The East Bay Municipal Utility District (EBMUD) owns and maintains the 24-inch main (WLC Architects, 2009).

The campus discharges sewage flows into the City of Alameda conveyance system, which in turn delivers raw sewage flows to the EBMUD conveyance system, which carries flows under the Oakland Estuary and into the regional wastewater treatment facility. There are currently two points of discharge to the City of Alameda system. The entire campus, with the exception of Building E, flows out through a 12-inch line in West Campus Loop Road to Ralph Appezzato Memorial Parkway. The core of the campus discharges to this main line through a 12-inch line that runs west between Buildings A and D. Building E has dedicated sanitary service that connects to an 8-inch lateral to a main located in Webster Street (WLC Architects, 2009).

The campus is served by (1) a 12-kilovolt underground electrical line owned by Alameda Municipal Power and running along West Campus Drive, and (2) two 6-inch gas lines that run north into campus from PG&E facilities at the corner of Atlantic Avenue and West Campus Loop (WLC Architects, 2009).

The project site contains water, sanitary sewer, electrical, gas, and other utility lines, as described below.

Proposed Utility Line Connections and Relocations

As noted in Chapter I, *Project Description*, of this Initial Study, existing on-site domestic and fire water lines would be rerouted around the new building footprint, and new fire hydrants would be provided as required by the Alameda Fire Department. The project's fire access plan shows one existing hydrant and five new hydrants surrounding the proposed new building (JK Architecture Engineering, 2020b). The new domestic water and fire water services for the building would be connected to the relocated lines. A new irrigation system would be located to the east of the proposed building, connecting to the existing domestic water line with a meter and backflow assembly. The new sanitary sewer service, including grease waste, would connect to an existing 12-inch sanitary sewer line that runs north-south along the west side of the proposed building.

As also noted in Chapter I, *Project Description*, the proposed building would require a new transformer and underground electrical infrastructure as well as underground telecommunications infrastructure on-site. Service to the new transformer may be provided via existing underground conduits beneath Webster Street. The proposed building would connect to the campus gas main either to the north or west of the building, depending on the design size.

The project would need to provide appropriate setbacks from a major underground electrical line easement along Ralph Appezzato Memorial Parkway. A draft site plan has been provided to Alameda Municipal Power (AMP) to show the easement location and layout and no further mitigation is considered necessary.. AMP has not yet received formal and final AMP Council approval of the easement documents. According to the Peralta Community College District contact at AMP, a third-party vendor is currently reviewing the submitted easement documentation.

Conclusion

Since the project would not increase the student, faculty, or staff population on the campus, overall demand for water, wastewater, energy, and other utilities and services would not increase and no major new or expanded facilities would be needed. Demand for these services may increase slightly during project construction, but any increases would be temporary and would not create a need for new or expanded facilities. The environmental impacts of the proposed utility line connections and relocations are evaluated as part of the analysis of the project throughout this Initial Study. The proposed utility line changes are not expected to cause significant environmental effects.

Project impacts on energy resources and stormwater drainage are addressed in Section VI, *Energy*, and Section X, *Hydrology and Water Quality*, of this Initial Study, respectively.

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?

Less Than Significant Impact

Refer to Item (a) above. EBMUD provides water service to the campus. The project would not increase overall water demand, since it would not increase the student, faculty, or staff population on the campus. Water demand may increase slightly during project construction, but any increases would be temporary and would not create a need for new or expanded water entitlements.

The project's average daily domestic water consumption is estimated at 490 gallons (JK Architecture Engineering, 2020a), but this demand would not affect water supplies since the overall demand for water would not change as a result of the project. Similarly, the project's estimated irrigation water demand of approximately 1,284,280 gallons per year (JK Architecture Engineering, 2020a) is not expected to exceed current demand, since the project would not create significant new landscaping on the campus. According to the project civil engineer, irrigation of existing lawn areas accounts for approximately 60 percent of the water demand on the campus, and the District is currently meeting State of California water allowance requirements.

As noted in Chapter I, *Project Description*, the project's water conservation features would include (1) water-saving plumbing fixtures at or above standards of the State of California Green Building Standards Code, and (2) water-efficient irrigation systems mandated by the Division of the State Architect. As discussed in Chapter I, the irrigation system would use a weather-based irrigation controller, and the design and equipment would promote water conservation that meets state model water-efficient landscape ordinance requirements. Landscape areas over 10 feet in dimension may use high-efficiency spray irrigation, while smaller zones and all trees would be irrigated with bubbler systems. The Division of the State Architect would review the project to determine its compliance with water conservation requirements of the State of California Green Building Standards Code (also known as the CALGreen Code). These requirements address both indoor and outdoor water use (DSA, 2020).

For these reasons, water supplies are expected to be sufficient for the project, and the impact would be less than significant.

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?

Less Than Significant Impact

Refer to Item (a) above. The campus discharges sewage flows into the City of Alameda conveyance system, which in turn delivers raw sewage flows to the EBMUD conveyance system, which carries flows under the Oakland Estuary and into the regional wastewater treatment facility (WLC Architects, 2009). The project would not change overall existing demand for wastewater treatment, since it would not increase the student, faculty, or staff population on the campus. Project operations would generate approximately 490 gallons of sewage per day (JK Architecture Engineering, 2020a), but this flow would not affect wastewater treatment capacity since the overall demand for wastewater treatment would not

change as a result of the project. Therefore, impacts on wastewater treatment capacity would be less than significant.

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 Impact

The project would not increase the student, faculty, or staff population on the campus, and therefore project operations would not generate new solid waste that would affect landfill capacity.

Project construction, including building demolition, would generate waste, some of which would require disposal at a landfill. As stated in Chapter I, *Project Description*, of this Initial Study, proposed demolition of Buildings B and E is estimated to result in off-haul of about 2,060 to 2,470 cubic yards of demolition debris.

The Altamont Landfill, which accepts solid waste from Alameda, has an estimated permitted capacity of 124.4 million cubic yards, a daily permitted capacity of 11,150 tons, and an estimated remaining capacity of 65.4 million cubic yards as of 2014 (CalRecycle, 2020). Construction waste from the project would represent a very small percentage of the landfill's remaining capacity, and therefore it is reasonable to assume that adequate landfill capacity would be available for this amount of construction debris. In addition, the Peralta Community College District requires sustainable methods of construction and recycled materials in all operations and construction projects (WLC Architects, 2009), which would help to reduce waste from project construction. The project would also be subject to State of California Green Building Standards Code (CALGreen Code) requirements for construction waste reduction and recycling (see Item (e) below).

For these reasons, the project would not be expected to generate solid waste in excess of applicable standards or infrastructure capacity, or otherwise impair attainment of solid waste reduction goals. The impact would be less than significant.

e) Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact

By law, the project must comply with all applicable federal, state, and local statutes and regulations related to solid waste. The project would be subject to the California Green Building Standards Code (CALGreen Code), which includes requirements for waste reduction and recycling; these include requirements that a minimum of 65 percent of non-hazardous construction and demolition waste be recycled and/or salvaged for reuse, that a construction waste management plan be prepared, and that readily accessible areas be provided to allow recycling by project occupants (DSA, 2020). The Division of the State Architect would review the project to verify compliance with State of California requirements, including the California Green Building Standards Code (CALGreen Code). In addition, as noted under Item (d) above, the Peralta Community College District requires sustainable methods of construction and recycled materials in all operations and construction projects (WLC Architects, 2009).

The project therefore is not expected to cause any conflicts with statutes or regulations related to solid waste.

REFERENCES

California Department of Resources Recycling and Recovery (CalRecycle), 2020. "Facility/Site Summary Details: Altamont Landfill & Resource Recovery (01-AA-0009)." Available at: https://www2.calrecycle.ca.gov/swfacilities/Directory/01-AA-0009/, accessed July 15, 2020.

Division of the State Architect (DSA), 2020. "Project Submittal Guideline: CALGreen Code," revised January 27, 2020. Available at: https://www.dgs.ca.gov/DSA/Publications, accessed July 15, 2020.

JK Architecture Engineering, 2020a. "Appendix A, College of Alameda – Auto/Diesel, List of Needed Materials for IS/MND."

JK Architecture Engineering, 2020b. "College of Alameda Transportation Technology Fire Access Plan," Drawing No. C1.0, July 3.

WLC Architects, Inc., 2009. *College of Alameda Facilities Master Plan*, pages 18, 83, 86, and 89. Available at: https://web.peralta.edu/general-services/facilities-master-plan-final-draft/, accessed July 15, 2020.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. 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 EVALUATION

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact

This significance criterion would not apply to the project, since the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones (see Section IX, *Hazards and Hazardous Materials*, of this Initial Study). Project impacts on emergency response and evacuation plans are addressed in Section IX, *Hazards and Hazardous Materials*, and Section XVII, *Transportation*, of this Initial Study.

b) Would the project 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?

No Impact

This significance criterion would not apply to the project, since the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones (see Section IX, *Hazards and Hazardous Materials*, of this Initial Study). Wildland fire impacts are addressed in Section IX, *Hazards and Hazardous Materials*, of this Initial Study.

c) Would the project 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?

No Impact

This significance criterion would not apply to the project, since the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones (see Section IX, *Hazards and Hazardous Materials*, of this Initial Study). The project's infrastructure impacts are addressed in Section XIX, *Utilities and Service Systems*, of this Initial Study.

d) Would the project 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?

No Impact

This significance criterion would not apply to the project, since the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones (see Section IX, *Hazards and Hazardous Materials*, of this Initial Study). Project-related landslide and flooding risks are addressed in Section VII, *Geology and Soils*, and Section X, *Hydrology and Water* Quality, respectively.

REFERENCES

None.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. 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 EVALUATION

a) Does the project have the potential to 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, 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?

Less Than Significant with Mitigation Incorporated

Refer to Section IV, *Biological Resources*, which includes mitigation measures related to biological resources, specifically nesting birds that may reside at the site at the time of construction; and Section V, *Cultural Resources*, which includes mitigation measures related to archaeological resources.

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.)

Less Than Significant Impact

No other campus projects are currently proposed that would add to potential cumulative impacts on the College of Alameda campus. The City of Alameda was contacted on August 10, 2020, to determine if any new or proposed developments could occur within 0.25 mile of the project site. However, no response was received by the time this document went to press. It is assumed that with the mitigation measures described in this IS/MND, the project would not contribute to cumulative impacts and separate mitigation measures or conditions of approval may be applied to any other nearby new developments.

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

Less Than Significant with Mitigation Incorporated

Refer to Section XIII, *Noise*, which addresses potential noise and vibration impacts and which identifies mitigation measures to reduce such impacts to less than significant.

REFERENCES

None.

APPENDIX A
DISTRICT'S APPROVAL OF MITIGATION MEASURES

Mitigation Measure AIR-1: During project construction, the contractor shall implement a dust control program that includes the following measures recommended by the Bay Area Air Quality Management District (BAAQMD):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- If any hauling activities would occur, 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.
- 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.

In addition, an independent construction monitor or a Peralta Community College District employee shall conduct periodic site inspections, but in no event fewer than four total inspections, during the course of construction to ensure these mitigation measures are implemented and shall issue a letter report to the Peralta Community College District documenting the inspection results. Reports indicating non-compliance with construction mitigation measures shall be cause to issue a stop-work order until such time as compliance is achieved. (LTS)

Mitigation Measure BIOLOGY-1: Any active bird nests in the vicinity of proposed vegetation removal and grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their own. Avoidance may be accomplished either by scheduling grading and vegetation removal during the non-nesting period (September through February), or if this is not feasible, by conducting a pre-construction survey for active nests. A pre-construction survey report verifying that no active nests are present, or that nesting has been completed as detailed below, shall be submitted to the Peralta Community College District for review and approval prior to initiation of grading or vegetation removal during the nesting season. Provisions of the pre-construction survey and nest avoidance measures, if necessary, shall include the following:

- If initial grubbing and grading is scheduled during the active nesting period (March through August), a qualified wildlife biologist shall conduct a pre-construction nesting survey no more than 7 days prior to initiation of grading or vegetation removal to provide confirmation on presence or absence of active nests in the vicinity.

- If active nests are encountered, species-specific measures shall be prepared by a qualified biologist through informal consultation with the California Department of Fish and Wildlife (CDFW) and implemented to prevent nest abandonment. At a minimum, vegetation removal and grading in the vicinity of the nest shall be deferred until the young birds have fledged. A nest setback zone of at least 100 feet for raptors and 50 feet for passerine birds shall be established, and all construction-related disturbances shall be prohibited within the nest setback zone. The perimeter of the nest setback zone shall be fenced or adequately demarcated and construction personnel restricted from the area.
- If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the nest setback zone until a qualified biologist verifies either that a) the birds have not begun egg-laying and incubation, or b) the juveniles from the nest are foraging independently and capable of independent survival at an earlier date.
- A survey report of findings verifying that any young have fledged shall be submitted for review and approval by the District prior to initiation of grading or vegetation removal in the nest setback zone. Following approval by the District, grading, vegetation removal, and construction in the nest setback zone may proceed as proposed.

Implementation of Mitigation Measure BIOLOGY-1 would reduce potentially significant impacts on nesting birds to a less-than-significant level. (LTS)

Mitigation Measure CULTURAL-1: The Peralta Community College District shall inform its contractor(s) of the sensitivity of the project site for archaeological deposits. The District shall verify that the following directive has been included in the appropriate construction documents:

> "If archaeological deposits are discovered during project activities, all work within 50 feet of the discovery shall be redirected. The District shall contact a qualified archaeologist to assess the situation and make recommendations regarding the treatment of the discovery. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. Archaeological materials that may be encountered include historical materials, such as wood, stone, or concrete footings, walls, and other structural remains including dock remnants. Although not anticipated, prehistoric archaeological materials may be mixed within fill underlying the project site. Prehistoric archaeological materials include obsidian or chert flaked-stone tools (e.g., projectile points, knives, choppers) or toolmaking debris; shellfish remains; faunal bones; and stone-milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains."

With implementation of the above mitigation measure, the potential impact on historical and archaeological resources would be reduced to a less-than-significant level. (LTS)

Mitigation Measure CULTURAL-2: Implement Mitigation Measure CULTURAL-1. (LTS)

Mitigation Measure HAZARDS-1: Before demolition of the existing structures at the project site, a comprehensive Hazardous Building Materials Survey (HBMS) for the project site shall be prepared and signed by a qualified environmental professional. The HBMS shall document the presence or lack thereof of asbestos-containing materials, lead-containing paint and other lead-containing materials,

PCB-containing equipment and materials, and any other hazardous building materials. The HBMS shall include abatement specifications for the stabilization and/or removal of the identified hazardous building materials in accordance with all applicable laws and regulations. The demolition contractor(s) shall implement the abatement specifications and submit to the Peralta Community College District evidence of completion of abatement activities prior to demolition of the existing structures. (LTS)

Mitigation Measure HAZARDS-2: Prior to building demolition, grading, or construction of the project, the Peralta Community College District shall engage with a qualified environmental professional to perform a Phase II Environmental Site Assessment (ESA) to investigate areas of known or potential contamination identified in the Phase I ESA prepared for the project site by Basics Environmental, dated May 12, 2020, as well as the potential presence of a petroleum hydrocarbon- and polynuclear aromatic hydrocarbon (PAH)-impacted soil layer (also known as "marsh crust") beneath the project site.

A Phase II ESA Report shall be prepared by a qualified environmental professional to document the findings of the Phase I ESA and shall include recommendations for remedial action, if necessary, to protect human health and the environment. The Peralta Community College District shall implement the recommendations for remedial action and obtain approval for any proposed remedial action and required clearances from the applicable local, state, or federal regulatory agency.

A Soil and Groundwater Management Plan (SGMP) shall be prepared by a qualified environmental professional to outline soil and groundwater management protocols that shall be implemented during project construction to ensure that construction workers, the public, future site occupants, and the environment would not be exposed to hazardous materials that may be present in the subsurface of the project site. The SGMP shall be reviewed and approved by the applicable local, state, or federal regulatory agency prior to project construction. (LTS)

Mitigation Measure NOISE-1a: The Peralta Community College District shall retain a structural engineer or other qualified professional to evaluate and recommend alternative methods to impact pile driving for project components that require the installation of piles. If it is not feasible to avoid impact pile driving, a set of site-specific noise attenuation measures shall be prepared under the supervision of a qualified acoustical consultant to limit noise generated by impact pile driving. These attenuation measures shall be implemented during impact pile driving associated with pile installation. The site-specific noise attenuation measures shall include as many of the following control strategies, and any other effective strategies, as feasible:

1. The construction contractor shall implement "quiet" pile-driving technology (such as pre-drilling of piles, sonic pile drivers, and the use of more than one pile driver to shorten the total pile driving duration), where feasible, with consideration of geotechnical and structural requirements and soil conditions.

2. For impact pile driving, the construction contractor shall use a pile cap or cushion block on metal piles, which can reduce the ringing noise from metal piles (these are commonly used). This method might only reduce the noise by 1 to 2 A-weighted decibels (dBA), but the annoyance factor of the noise would be dramatically reduced by minimizing the ringing.

3. For impact pile driving, the construction contractor shall use a plywood/plexiglass shield or heavy sound curtain (Sound Transmission Class 20 or 2 pounds per square foot material or heavier) around the driver and top 5 feet of the pile to block line of sight to noise-sensitive receptors, where feasible and safe. This can reduce sound by 5 dBA or more. The use of a shield or sound curtain would be subject to site-specific safety conditions and may require a second crane.

4. A damping blanket wrapped tightly around pipe piles shall be used to reduce the characteristic resounding noise from impact driving pipe piles. This can achieve a 5-dBA reduction.

5. The construction contractor shall monitor the effectiveness of noise attenuation measures by taking noise measurements, at a distance of 100 feet, at least once per day during pile-driving.

Mitigation Measure NOISE-1b: The construction contractor shall implement noise reduction measures to reduce noise impacts related to construction. Noise reduction measures include, but are not limited to, the following:

1. Equipment and trucks used for project construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds), wherever feasible.

2. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available; this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with required construction procedures.

3. Stationary noise sources shall be located as far from nearby receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures to provide equivalent noise reduction.

Mitigation Measure NOISE-1c: The Peralta Community College District shall require the construction contractor to develop a set of procedures for tracking and responding to complaints received pertaining to construction vibration and noise and implement the procedures during construction. At a minimum, the procedures shall include:

1. Designation of an on-site construction complaint and enforcement manager for the project;

2. Protocols specific to on-campus and off-campus receptors for receiving, responding to, and tracking received complaints; and

3. Maintenance of a complaint log that records received complaints and how complaints were addressed.

Mitigation Measure NOISE-1d: Nearby residents, college students, and staff shall be informed by posting informational notices on the fence line of the construction site, nearby buildings, and classrooms. The notice shall state the date of planned construction activity and include the contact information of the construction complaint and enforcement manager identified in Mitigation Measure NOISE-1c.

Mitigation Measure NOISE-1e: To the maximum extent practicable, the construction contractor shall coordinate construction activities (particularly pile driving) so that they do not occur during established testing periods (e.g., finals week).

Mitigation Measures NOISE-1a through NOISE-1e require (1) the evaluation of alternative methods to impact pile driving and if, impact pile driving is unavoidable, site-specific noise attenuation measures, which could reduce impact pile driving noise by up to 11 to 12 dBA (from using a pile cap or cushion block on metal piles, using a shield or heavy sound curtain, and using a damping blanket wrapped tightly around pile piles); (2) implementation of noise reduction measures; (3) the development of a compliance tracking system, (4) notification of potentially affected residents, students, and staff of planned construction activities; and (5) scheduling of particularly noise-generating activities (e.g., pile driving) to avoid disrupting testing periods.

Off-campus receptors would be exposed to excessive construction noise during pile driving, but not during any of the other phases of construction. The total duration of pile driving is estimated to be less than a week, and therefore would be of relatively short duration. The exposure of a given on-campus receptor to construction noise would be limited in duration because the location of construction equipment would vary throughout the day depending on the location where the noise-generating equipment is being used, and would also vary over the 16-month period of project construction. For these reasons, construction noise impacts from heavy equipment would be reduced to a less-than-significant level after implementation of Mitigation Measures NOISE-1a through NOISE-1e.

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

Mitigation Measure NOISE-2: The Peralta Community College District shall use the services of an acoustic design consultant, mechanical equipment selection and acoustical shielding, placement of equipment in less-sensitive areas when feasible, and sound attenuators to ensure that noise levels from heating, ventilation, and air conditioning (HVAC) systems do not exceed the 50 dBA L_{eq} interior noise standard for school buildings and do not exceed the exterior noise standards of 50 dBA L_{50}/60 dBA L_{25}/65 dBA $L_{8.33}$/70 dBA $L_{1.67}$/75 dBA L_{max} during daytime (7:00 AM to 10:00 PM) and 50 dBA L_{50}/55 dBA L_{25}/60 dBA $L_{8.33}$/65 dBA $L_{1.67}$/70 dBA L_{max} during nighttime (10:00 PM to 7:00 PM) at the nearest school buildings and residences. Controls that would typically be incorporated to attain this outcome include locating equipment indoors or in less noise-sensitive areas when feasible, selecting quiet equipment, and providing sound attenuators on fans, sound attenuator packages for cooling towers and emergency generators, acoustical screen walls, and equipment enclosures. (LTS)

Mitigation Measure NOISE-3: The Peralta Community College District shall implement Mitigation Measures NOISE-1a, NOISE-1c, NOISE-1d, and NOISE-1e. These measures require (1) the evaluation of alternative methods to impact pile driving; (2) the development of a compliance tracking

system; (3) notification of potentially affected residents, students, and staff of planned construction activities; and (4) scheduling of particularly vibration-generating activities (e.g., pile driving) to avoid disrupting testing periods.

For off-campus receptors, exceedance of vibration disturbance threshold could occur during pile driving activities, which would be completed within a week. In addition, construction activities, including pile driving, would be conducted between the hours of 7:00 AM to 7:00 PM, Mondays through Fridays, and 8:00 AM to 5:00 PM on Saturdays, when people are not typically sleeping, and the noticeable vibration, if any, would be relatively short term. For these reasons, vibration impacts on off-campus receptors would be reduced to a less-than-significant level with the implementation of the required mitigation measures.

The degree to which a person is annoyed by vibration depends on the activity in which they are participating at the time of the disturbance. Vibration would be most annoying when it results in sleep disturbance. On-campus receptors are classrooms and school offices where sleep disturbance would not occur. Pile driving, which would generate the highest vibration levels, is estimated to last less than a week. Therefore, the exposure of most on-campus receptors to the highest vibration levels would be limited in time. In addition, the exposure of a given on-campus receptor to vibration in excess of the disturbance thresholds during other phases of construction would also be limited in duration because the location of construction equipment would vary throughout the day depending on the location where the vibration-generating equipment is being used, and would also vary over the 16-month period of construction of the project. For these reasons, vibration impacts on on-campus receptors would be reduced to a less-than-significant level after the implementation of the required mitigation measures.

The combination of the above mitigation measures would reduce the impact to a less-than-significant level. (LTS)

The District agrees to implementation of the above mitigation measures.

Atheria Smith

Signature

Director of Facilities Planning and Development - Department of General Services

Title and Department

APPENDIX B
CALEEMOD RESULTS AND HEALTH RISK ASSESSMENT

CALEEMOD RESULTS AND HEALTH RISK ASSESSMENT

Prepared by

Baseline Environmental

for

Transportation Technology Center

August 2020

COA Transportation Center v3

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	37.00	1000sqft	1.60	37,000.00	0
Parking Lot	35.00	Space	0.00	14,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	206	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

COA Transportation Center v3 - Alameda County, Annual

Project Characteristics - CO2 Intensity factor modified to the most recent (2018) PG&E reported value.

Land Use - Project acreage is the sum of sqft from buildings to be demolished and the proposed building.

Construction Phase - Demolition would take place after the proposed new building is complete.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - According to RFI 2 skid steer loaders were added to account for the Series 900 CAT loader.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - A bore/drill rig was added to the list to account for the possible pile driving

Trips and VMT - Haul trips modified to be consistent with PD. Assume 10 delivery (vendor) trips (MHDT) per day based on PD.

Demolition - 2,470 cyds of demo debris converted to 1,235 tons.

Grading - Approximately 1,575 cyds of concrete delivery to site

Vehicle Trips - Project would not result in additional students or staff, therefore no change in traffic from project site.

Energy Use -

Construction Off-road Equipment Mitigation - [NOT USED] Potential Mitigation Measure AIR-2 needed: Use Tier 2 + Level III DPF for equipment above 125 HP to reduce DPM emissions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	18,500.00	19,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	55,500.00	57,000.00
tblAreaCoating	Area_Nonresidential_Exterior	18500	19000
tblAreaCoating	Area_Nonresidential_Interior	55500	57000
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

COA Transportation Center v3 - Alameda County, Annual

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblGrading	MaterialImported	0.00	1,575.00
tblLandUse	LotAcreage	0.85	1.60
tblLandUse	LotAcreage	0.32	0.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	206
tblSolidWaste	SolidWasteGenerationRate	48.10	49.40
tblTripsAndVMT	HaulingTripNumber	197.00	175.00
tblTripsAndVMT	HaulingTripNumber	122.00	137.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00

tblTripsAndVMT	VendorTripNumber	8.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	MHDT
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00
tblWater	IndoorWaterUseRate	1,814,814.20	1,863,863.24
tblWater	OutdoorWaterUseRate	2,838,555.55	2,915,273.27

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0994	0.7794	0.7012	1.4000e-003	0.0293	0.0362	0.0655	0.0118	0.0349	0.0466	0.0000	118.0849	118.0849	0.0182	0.0000	118.5405
2022	0.3129	0.9155	0.9081	1.7600e-003	0.0298	0.0411	0.0709	6.5800e-003	0.0394	0.0460	0.0000	150.1286	150.1286	0.0251	0.0000	150.7550
Maximum	**0.3129**	**0.9155**	**0.9081**	**1.7600e-003**	**0.0298**	**0.0411**	**0.0709**	**0.0118**	**0.0394**	**0.0466**	**0.0000**	**150.1286**	**150.1286**	**0.0251**	**0.0000**	**150.7550**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0866	0.7768	0.7501	1.4000e-003	0.0293	0.0278	0.0570	0.0118	0.0272	0.0389	0.0000	118.0848	118.0848	0.0182	0.0000	118.5404
2022	0.2971	0.9863	0.9732	1.7600e-003	0.0298	0.0289	0.0587	6.5800e-003	0.0281	0.0347	0.0000	150.1284	150.1284	0.0251	0.0000	150.7549
Maximum	**0.2971**	**0.9863**	**0.9732**	**1.7600e-003**	**0.0298**	**0.0289**	**0.0587**	**0.0118**	**0.0281**	**0.0389**	**0.0000**	**150.1284**	**150.1284**	**0.0251**	**0.0000**	**150.7549**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**6.95**	**-4.03**	**-7.09**	**0.00**	**0.00**	**26.70**	**15.15**	**0.00**	**25.53**	**20.47**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-12-2021	10-11-2021	0.4242	0.4133
2	10-12-2021	1-11-2022	0.5258	0.5225
3	1-12-2022	4-11-2022	0.4769	0.4887
4	4-12-2022	7-11-2022	0.6447	0.6815
5	7-12-2022	9-30-2022	0.0567	0.0619
		Highest	0.6447	0.6815

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1656	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003
Energy	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	103.3178	103.3178	6.3300e-003	2.2800e-003	104.1557
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.0278	0.0000	10.0278	0.5926	0.0000	24.8433
Water						0.0000	0.0000		0.0000	0.0000	0.5913	1.8958	2.4871	0.0610	1.4900e-003	4.4559
Total	**0.1724**	**0.0620**	**0.0528**	**3.7000e-004**	**0.0000**	**4.7100e-003**	**4.7100e-003**	**0.0000**	**4.7100e-003**	**4.7100e-003**	**10.6191**	**105.2149**	**115.8340**	**0.6600**	**3.7700e-003**	**133.4564**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1656	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003
Energy	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	103.3178	103.3178	6.3300e-003	2.2800e-003	104.1557
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	10.0278	0.0000	10.0278	0.5926	0.0000	24.8433
Water						0.0000	0.0000		0.0000	0.0000	0.5913	1.8958	2.4871	0.0610	1.4900e-003	4.4559
Total	**0.1724**	**0.0620**	**0.0528**	**3.7000e-004**	**0.0000**	**4.7100e-003**	**4.7100e-003**	**0.0000**	**4.7100e-003**	**4.7100e-003**	**10.6191**	**105.2149**	**115.8340**	**0.6600**	**3.7700e-003**	**133.4564**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/7/2021	8/10/2021	5	2	
2	Grading	Grading	8/11/2021	8/16/2021	5	4	
3	Building Construction	Building Construction	8/17/2021	5/23/2022	5	200	
4	Paving	Paving	5/24/2022	6/6/2022	5	10	
5	Architectural Coating	Architectural Coating	6/7/2022	6/20/2022	5	10	
6	Demolition	Demolition	6/21/2022	7/18/2022	5	20	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 57,000; Non-Residential Outdoor: 19,000; Striped Parking Area: 840 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Bore/Drill Rigs	1	8.00	221	0.50
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Skid Steer Loaders	2	8.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	4	10.00	10.00	175.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT
Grading	3	8.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT
Building Construction	7	21.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT
Paving	5	13.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT
Architectural Coating	1	4.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT
Demolition	7	18.00	10.00	137.00	10.80	7.30	20.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8900e-003	0.0000	5.8900e-003	2.9700e-003	0.0000	2.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0204	9.6300e-003	3.0000e-005		8.6000e-004	8.6000e-004		7.9000e-004	7.9000e-004	0.0000	2.3393	2.3393	7.6000e-004	0.0000	2.3582
Total	**1.8100e-003**	**0.0204**	**9.6300e-003**	**3.0000e-005**	**5.8900e-003**	**8.6000e-004**	**6.7500e-003**	**2.9700e-003**	**7.9000e-004**	**3.7600e-003**	**0.0000**	**2.3393**	**2.3393**	**7.6000e-004**	**0.0000**	**2.3582**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-004	0.0236	4.3800e-003	7.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.1000e-004	7.0000e-005	4.8000e-004	0.0000	6.6154	6.6154	3.3000e-004	0.0000	6.6236
Vendor	2.0000e-005	5.6000e-004	2.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1821	0.1821	0.0000	0.0000	0.1821
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0679	0.0679	0.0000	0.0000	0.0679
Total	**7.5000e-004**	**0.0242**	**4.8200e-003**	**7.0000e-005**	**1.6300e-003**	**7.0000e-005**	**1.7000e-003**	**4.5000e-004**	**7.0000e-005**	**5.2000e-004**	**0.0000**	**6.8653**	**6.8653**	**3.3000e-004**	**0.0000**	**6.8736**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8900e-003	0.0000	5.8900e-003	2.9700e-003	0.0000	2.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7000e-004	0.0219	0.0148	3.0000e-005		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	2.3393	2.3393	7.6000e-004	0.0000	2.3582
Total	**7.7000e-004**	**0.0219**	**0.0148**	**3.0000e-005**	**5.8900e-003**	**1.8000e-004**	**6.0700e-003**	**2.9700e-003**	**1.7000e-004**	**3.1400e-003**	**0.0000**	**2.3393**	**2.3393**	**7.6000e-004**	**0.0000**	**2.3582**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-004	0.0236	4.3800e-003	7.0000e-005	1.4800e-003	7.0000e-005	1.5500e-003	4.1000e-004	7.0000e-005	4.8000e-004	0.0000	6.6154	6.6154	3.3000e-004	0.0000	6.6236
Vendor	2.0000e-005	5.6000e-004	2.0000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1821	0.1821	0.0000	0.0000	0.1821
Worker	3.0000e-005	2.0000e-005	2.4000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0679	0.0679	0.0000	0.0000	0.0679
Total	**7.5000e-004**	**0.0242**	**4.8200e-003**	**7.0000e-005**	**1.6300e-003**	**7.0000e-005**	**1.7000e-003**	**4.5000e-004**	**7.0000e-005**	**5.2000e-004**	**0.0000**	**6.8653**	**6.8653**	**3.3000e-004**	**0.0000**	**6.8736**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	**2.5800e-003**	**0.0287**	**0.0127**	**3.0000e-005**	**9.8300e-003**	**1.2800e-003**	**0.0111**	**5.0500e-003**	**1.1700e-003**	**6.2200e-003**	**0.0000**	**2.4767**	**2.4767**	**8.0000e-004**	**0.0000**	**2.4968**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1200e-003	4.0000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3641	0.3641	0.0000	0.0000	0.3642
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1086	0.1086	0.0000	0.0000	0.1086
Total	**9.0000e-005**	**1.1600e-003**	**7.8000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.4727**	**0.4727**	**0.0000**	**0.0000**	**0.4729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.8000e-004	0.0226	0.0160	3.0000e-005		2.6000e-004	2.6000e-004		2.4000e-004	2.4000e-004	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	**8.8000e-004**	**0.0226**	**0.0160**	**3.0000e-005**	**9.8300e-003**	**2.6000e-004**	**0.0101**	**5.0500e-003**	**2.4000e-004**	**5.2900e-003**	**0.0000**	**2.4767**	**2.4767**	**8.0000e-004**	**0.0000**	**2.4968**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.1200e-003	4.0000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3641	0.3641	0.0000	0.0000	0.3642
Worker	5.0000e-005	4.0000e-005	3.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1086	0.1086	0.0000	0.0000	0.1086
Total	**9.0000e-005**	**1.1600e-003**	**7.8000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.4727**	**0.4727**	**0.0000**	**0.0000**	**0.4729**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0897	0.6750	0.6385	1.0900e-003		0.0339	0.0339		0.0327	0.0327	0.0000	89.8661	89.8661	0.0160	0.0000	90.2672
Total	**0.0897**	**0.6750**	**0.6385**	**1.0900e-003**		**0.0339**	**0.0339**		**0.0327**	**0.0327**	**0.0000**	**89.8661**	**89.8661**	**0.0160**	**0.0000**	**90.2672**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0276	9.9700e-003	1.0000e-004	3.4400e-003	6.0000e-005	3.4900e-003	1.0400e-003	6.0000e-005	1.0900e-003	0.0000	9.0121	9.0121	1.2000e-004	0.0000	9.0151
Worker	3.3200e-003	2.3700e-003	0.0248	8.0000e-005	8.2200e-003	6.0000e-005	8.2700e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	7.0527	7.0527	1.7000e-004	0.0000	7.0569
Total	**4.4000e-003**	**0.0300**	**0.0348**	**1.8000e-004**	**0.0117**	**1.2000e-004**	**0.0118**	**3.2300e-003**	**1.1000e-004**	**3.3300e-003**	**0.0000**	**16.0649**	**16.0649**	**2.9000e-004**	**0.0000**	**16.0720**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0797	0.6770	0.6790	1.0900e-003		0.0271	0.0271		0.0266	0.0266	0.0000	89.8660	89.8660	0.0160	0.0000	90.2671
Total	**0.0797**	**0.6770**	**0.6790**	**1.0900e-003**		**0.0271**	**0.0271**		**0.0266**	**0.0266**	**0.0000**	**89.8660**	**89.8660**	**0.0160**	**0.0000**	**90.2671**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0800e-003	0.0276	9.9700e-003	1.0000e-004	3.4400e-003	6.0000e-005	3.4900e-003	1.0400e-003	6.0000e-005	1.0900e-003	0.0000	9.0121	9.0121	1.2000e-004	0.0000	9.0151
Worker	3.3200e-003	2.3700e-003	0.0248	8.0000e-005	8.2200e-003	6.0000e-005	8.2700e-003	2.1900e-003	5.0000e-005	2.2400e-003	0.0000	7.0527	7.0527	1.7000e-004	0.0000	7.0569
Total	**4.4000e-003**	**0.0300**	**0.0348**	**1.8000e-004**	**0.0117**	**1.2000e-004**	**0.0118**	**3.2300e-003**	**1.1000e-004**	**3.3300e-003**	**0.0000**	**16.0649**	**16.0649**	**2.9000e-004**	**0.0000**	**16.0720**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0833	0.6314	0.6427	1.1100e-003		0.0297	0.0297		0.0287	0.0287	0.0000	91.6963	91.6963	0.0160	0.0000	92.0956
Total	**0.0833**	**0.6314**	**0.6427**	**1.1100e-003**		**0.0297**	**0.0297**		**0.0287**	**0.0287**	**0.0000**	**91.6963**	**91.6963**	**0.0160**	**0.0000**	**92.0956**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0277	9.1200e-003	1.0000e-004	3.5000e-003	5.0000e-005	3.5600e-003	1.0600e-003	5.0000e-005	1.1100e-003	0.0000	9.1554	9.1554	1.1000e-004	0.0000	9.1581
Worker	3.1400e-003	2.1600e-003	0.0231	8.0000e-005	8.3900e-003	5.0000e-005	8.4400e-003	2.2300e-003	5.0000e-005	2.2800e-003	0.0000	6.9330	6.9330	1.5000e-004	0.0000	6.9368
Total	**4.1500e-003**	**0.0298**	**0.0323**	**1.8000e-004**	**0.0119**	**1.0000e-004**	**0.0120**	**3.2900e-003**	**1.0000e-004**	**3.3900e-003**	**0.0000**	**16.0884**	**16.0884**	**2.6000e-004**	**0.0000**	**16.0949**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0745	0.6586	0.6874	1.1100e-003		0.0238	0.0238		0.0233	0.0233	0.0000	91.6962	91.6962	0.0160	0.0000	92.0955
Total	**0.0745**	**0.6586**	**0.6874**	**1.1100e-003**		**0.0238**	**0.0238**		**0.0233**	**0.0233**	**0.0000**	**91.6962**	**91.6962**	**0.0160**	**0.0000**	**92.0955**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0277	9.1200e-003	1.0000e-004	3.5000e-003	5.0000e-005	3.5600e-003	1.0600e-003	5.0000e-005	1.1100e-003	0.0000	9.1554	9.1554	1.1000e-004	0.0000	9.1581
Worker	3.1400e-003	2.1600e-003	0.0231	8.0000e-005	8.3900e-003	5.0000e-005	8.4400e-003	2.2300e-003	5.0000e-005	2.2800e-003	0.0000	6.9330	6.9330	1.5000e-004	0.0000	6.9368
Total	**4.1500e-003**	**0.0298**	**0.0323**	**1.8000e-004**	**0.0119**	**1.0000e-004**	**0.0120**	**3.2900e-003**	**1.0000e-004**	**3.3900e-003**	**0.0000**	**16.0884**	**16.0884**	**2.6000e-004**	**0.0000**	**16.0949**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	9.0000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	0.9065	0.9065	1.0000e-005	0.0000	0.9067
Worker	1.9000e-004	1.3000e-004	1.4200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4249	0.4249	1.0000e-005	0.0000	0.4252
Total	**2.9000e-004**	**2.8700e-003**	**2.3200e-003**	**1.0000e-005**	**8.6000e-004**	**1.0000e-005**	**8.7000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**1.3314**	**1.3314**	**2.0000e-005**	**0.0000**	**1.3319**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2500e-003	0.0498	0.0494	7.0000e-005		1.0900e-003	1.0900e-003		1.0200e-003	1.0200e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.2500e-003**	**0.0498**	**0.0494**	**7.0000e-005**		**1.0900e-003**	**1.0900e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9314**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	9.0000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	0.9065	0.9065	1.0000e-005	0.0000	0.9067
Worker	1.9000e-004	1.3000e-004	1.4200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4249	0.4249	1.0000e-005	0.0000	0.4252
Total	**2.9000e-004**	**2.8700e-003**	**2.3200e-003**	**1.0000e-005**	**8.6000e-004**	**1.0000e-005**	**8.7000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**	**0.0000**	**1.3314**	**1.3314**	**2.0000e-005**	**0.0000**	**1.3319**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2011					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2021**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	9.0000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	0.9065	0.9065	1.0000e-005	0.0000	0.9067
Worker	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1308	0.1308	0.0000	0.0000	0.1308
Total	**1.6000e-004**	**2.7800e-003**	**1.3400e-003**	**1.0000e-005**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**1.0372**	**1.0372**	**1.0000e-005**	**0.0000**	**1.0376**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2011					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.2021**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	9.0000e-004	1.0000e-005	3.5000e-004	1.0000e-005	3.5000e-004	1.0000e-004	1.0000e-005	1.1000e-004	0.0000	0.9065	0.9065	1.0000e-005	0.0000	0.9067
Worker	6.0000e-005	4.0000e-005	4.4000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1308	0.1308	0.0000	0.0000	0.1308
Total	**1.6000e-004**	**2.7800e-003**	**1.3400e-003**	**1.0000e-005**	**5.1000e-004**	**1.0000e-005**	**5.1000e-004**	**1.4000e-004**	**1.0000e-005**	**1.5000e-004**	**0.0000**	**1.0372**	**1.0372**	**1.0000e-005**	**0.0000**	**1.0376**

3.7 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0132	0.0000	0.0132	2.0000e-003	0.0000	2.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0183	0.1848	0.1674	2.8000e-004		9.0700e-003	9.0700e-003		8.4600e-003	8.4600e-003	0.0000	24.7135	24.7135	6.5500e-003	0.0000	24.8772
Total	**0.0183**	**0.1848**	**0.1674**	**2.8000e-004**	**0.0132**	**9.0700e-003**	**0.0223**	**2.0000e-003**	**8.4600e-003**	**0.0105**	**0.0000**	**24.7135**	**24.7135**	**6.5500e-003**	**0.0000**	**24.8772**

3.7 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	0.0170	3.3400e-003	5.0000e-005	1.1600e-003	5.0000e-005	1.2100e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	5.1105	5.1105	2.5000e-004	0.0000	5.1168
Vendor	2.0000e-004	5.4800e-003	1.8100e-003	2.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	1.8130	1.8130	2.0000e-005	0.0000	1.8135
Worker	5.3000e-004	3.7000e-004	3.9300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1767	1.1767	3.0000e-005	0.0000	1.1774
Total	**1.2500e-003**	**0.0229**	**9.0800e-003**	**8.0000e-005**	**3.2700e-003**	**7.0000e-005**	**3.3400e-003**	**9.1000e-004**	**7.0000e-005**	**9.8000e-004**	**0.0000**	**8.1002**	**8.1002**	**3.0000e-004**	**0.0000**	**8.1076**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0132	0.0000	0.0132	2.0000e-003	0.0000	2.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.2124	0.1824	2.8000e-004		3.4800e-003	3.4800e-003		3.2600e-003	3.2600e-003	0.0000	24.7135	24.7135	6.5500e-003	0.0000	24.8772
Total	**0.0114**	**0.2124**	**0.1824**	**2.8000e-004**	**0.0132**	**3.4800e-003**	**0.0167**	**2.0000e-003**	**3.2600e-003**	**5.2600e-003**	**0.0000**	**24.7135**	**24.7135**	**6.5500e-003**	**0.0000**	**24.8772**

3.7 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.2000e-004	0.0170	3.3400e-003	5.0000e-005	1.1600e-003	5.0000e-005	1.2100e-003	3.2000e-004	5.0000e-005	3.7000e-004	0.0000	5.1105	5.1105	2.5000e-004	0.0000	5.1168
Vendor	2.0000e-004	5.4800e-003	1.8100e-003	2.0000e-005	6.9000e-004	1.0000e-005	7.0000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	1.8130	1.8130	2.0000e-005	0.0000	1.8135
Worker	5.3000e-004	3.7000e-004	3.9300e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1767	1.1767	3.0000e-005	0.0000	1.1774
Total	**1.2500e-003**	**0.0229**	**9.0800e-003**	**8.0000e-005**	**3.2700e-003**	**7.0000e-005**	**3.3400e-003**	**9.1000e-004**	**7.0000e-005**	**9.8000e-004**	**0.0000**	**8.1002**	**8.1002**	**3.0000e-004**	**0.0000**	**8.1076**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	92	7	1
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721
Parking Lot	0.560371	0.039285	0.190378	0.108244	0.016023	0.005202	0.023981	0.045200	0.002184	0.002561	0.005524	0.000326	0.000721

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	35.7913	35.7913	5.0400e-003	1.0400e-003	36.2279
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	35.7913	35.7913	5.0400e-003	1.0400e-003	36.2279
NaturalGas Mitigated	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	67.5266	67.5266	1.2900e-003	1.2400e-003	67.9278
NaturalGas Unmitigated	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	67.5266	67.5266	1.2900e-003	1.2400e-003	67.9278

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.2654e+006	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	67.5266	67.5266	1.2900e-003	1.2400e-003	67.9278
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.8200e-003**	**0.0620**	**0.0521**	**3.7000e-004**		**4.7100e-003**	**4.7100e-003**		**4.7100e-003**	**4.7100e-003**	**0.0000**	**67.5266**	**67.5266**	**1.2900e-003**	**1.2400e-003**	**67.9278**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	1.2654e+006	6.8200e-003	0.0620	0.0521	3.7000e-004		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	67.5266	67.5266	1.2900e-003	1.2400e-003	67.9278
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**6.8200e-003**	**0.0620**	**0.0521**	**3.7000e-004**		**4.7100e-003**	**4.7100e-003**		**4.7100e-003**	**4.7100e-003**	**0.0000**	**67.5266**	**67.5266**	**1.2900e-003**	**1.2400e-003**	**67.9278**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	378140	35.3334	4.9700e-003	1.0300e-003	35.7645
Parking Lot	4900	0.4579	6.0000e-005	1.0000e-005	0.4634
Total		**35.7913**	**5.0300e-003**	**1.0400e-003**	**36.2279**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	378140	35.3334	4.9700e-003	1.0300e-003	35.7645
Parking Lot	4900	0.4579	6.0000e-005	1.0000e-005	0.4634
Total		**35.7913**	**5.0300e-003**	**1.0400e-003**	**36.2279**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1656	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003
Unmitigated	0.1656	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1454					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003
Total	**0.1656**	**1.0000e-005**	**6.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2900e-003**	**1.2900e-003**	**0.0000**	**0.0000**	**1.3700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0201					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1454					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2900e-003	1.2900e-003	0.0000	0.0000	1.3700e-003
Total	**0.1656**	**1.0000e-005**	**6.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2900e-003**	**1.2900e-003**	**0.0000**	**0.0000**	**1.3700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.4871	0.0610	1.4900e-003	4.4559
Unmitigated	2.4871	0.0610	1.4900e-003	4.4559

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.86386 / 2.91527	2.4871	0.0610	1.4900e-003	4.4559
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.4871**	**0.0610**	**1.4900e-003**	**4.4559**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	1.86386 / 2.91527	2.4871	0.0610	1.4900e-003	4.4559
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**2.4871**	**0.0610**	**1.4900e-003**	**4.4559**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.0278	0.5926	0.0000	24.8433
Unmitigated	10.0278	0.5926	0.0000	24.8433

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	49.4	10.0278	0.5926	0.0000	24.8433
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.0278**	**0.5926**	**0.0000**	**24.8433**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	49.4	10.0278	0.5926	0.0000	24.8433
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.0278**	**0.5926**	**0.0000**	**24.8433**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Construction

ISCST3 Model Parameters and Assumptions			
Source Type	**Units**	**Value**	**Notes**
Volume Source: Off-Road Equipment Exhaust			
Hours/Work Day	hours/day	11.50	Construction hours are limited to 7AM-7PM M-F, 8AM-5PM Saturday
DPM Emission Rate	gram/second	0.004046	Exhaust PM_{10} from off-road equipment
Number of Sources	count	73	SMAQMD, 2015
Emission Rate/Source	gram/second	0.000055	Scaling factor is (1/Emission Rate) to convert result from ISCST3
Release Height	meters	5.0	SMAQMD, 2015
Length of Side	meters	10.0	SMAQMD, 2015
Initial Lateral Dimension	meters	2.3	ISCST3 Calculator
Initial Vertical Dimension	meters	1.0	SMAQMD, 2015

ISCST3 Model Results			
Sensitive Receptor	**Pollutant**	**Annual Average Concentration**	**Notes**
MEIR	DPM ($\mu g/m^3$)	0.0563	Nearest residential receptor under the unmitigated scenario
	$PM_{2.5}$ ($\mu g/m^3$)	0.0541	Nearest residential receptor under the unmitigated scenario
MEIS	DPM ($\mu g/m^3$)	0.0104	Nearest school receptor under the unmitigated scenario
	$PM_{2.5}$ ($\mu g/m^3$)	0.0100	Nearest school receptor under the unmitigated scenario

Notes:

DPM = diesel particulate matter

PM_{10} = particulate matter with aerodynamic resistance diameters equal to or less than 10 microns

$PM_{2.5}$ = particulate matter with aerodynamic resistance diameters equal to or less than 2.5 microns

$\mu g/m^3$ = micrograms per cubic meter

Sacramento Metropolitan Air Quality Management District (SMAQMD), 2015. *Guide to Air Quality Assessment in Sacramento County* . June.

Summary of Health Risk Assessment at MEIR for DPM Emissions during Construction

Health Risk Assessment Parameters and Results				
DPM Emissions				
Inhalation Cancer Risk Assessment for DPM	**Units**	**Age Group**		**Notes**
		3rd Trimester	**0-2 Years**	
DPM Concentration (C)	$\mu g/m^3$	0.056	0.056	ISCST3 Annual Average
Daily Breathing Rate (DBR)	L/kg-day	361	1090	95th percentile (OEHHA, 2015)
Inhalation absorption factor (A)	unitless	1.0	1.0	OEHHA, 2015
Exposure Frequency (EF)	unitless	0.96	0.96	350 days/365 days in a year (OEHHA, 2015)
Dose Conversion Factor (CF_D)	$mg\text{-}m^3/\mu g\text{-}L$	0.000001	0.000001	Conversion of µg to mg and L to m^3
Dose	mg/kg/day	0.000019	0.000059	$C*DBR*A*EF*CF_D$ (OEHHA, 2015)
Cancer Potency Factor (CPF)	$(mg/kg/day)^{-1}$	1.1	1.1	OEHHA, 2015
Age Sensitivity Factor (ASF)	unitless	10	10	OEHHA, 2015
Annual Exposure Duration (ED)	years	0.25	1.08	Based on total construction period of 16 months
Averaging Time (AT)	years	70	70	70 years for residents (OEHHA, 2015)
Fraction of time at home (FAH)	unitless	0.85	0.85	OEHHA, 2015
Cancer Risk Conversion Factor (CF)	m^3/L	1000000	1000000	Chances per million (OEHHA, 2015)
Cancer Risk	per million	0.65	8.52	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Total Cancer Risk	per million	9.17		At MEIR location
Hazard Index for DPM	**Units**	**Value**		**Notes**
Chronic REL	$\mu g/m^3$	5.0	OEHHA, 2015	
Chronic Hazard Index for DPM	unitless	0.01	At MEIR location	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

$\mu g/m^3$ = micrograms per cubic meter

L/kg-day = liters per kilogram-day

m^3/L = cubic meters per liter

$(mg/kg/day)^{-1}$ = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

Office of Environmental Health Hazard Assessment (OEHHA), 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February.*

Summary of Health Risk Assessment at MEIS for DPM Emissions during Construction

Health Risk Assessment Parameters and Results			
DPM Emissions			
Inhalation Cancer Risk Assessment for DPM	**Units**	**Age Group 0-2 Years**	**Notes**
DPM Concentration (C)	$\mu g/m^3$	0.010	ISCST3 Annual Average
Worker Adjustment Factor (WAF)	unitless	2.536	11.5 h/day, 6 days per week work schedule
Daily Breathing Rate (DBR)	L/kg-8hrs	1200	95th percentile moderate intensity (OEHHA, 2015)
Inhalation absorption factor (A)	unitless	1.0	OEHHA, 2015
Exposure Frequency (EF)	unitless	0.49	180 days/365 days. Minimum amount of instructio
Dose Conversion Factor (CF_D)	$mg\text{-}m^3/\mu g\text{-}L$	0.000001	Conversion of µg to mg and L to m^3
Dose	mg/kg/day	0.000016	$C*DBR*A*EF*CF_D$ (OEHHA, 2015)
Cancer Potency Factor (CPF)	$(mg/kg/day)^{-1}$	1.1	OEHHA, 2015
Age Sensitivity Factor (ASF)	unitless	10	OEHHA, 2015
Annual Exposure Duration (ED)	years	1.33	Based on total construction period of 16 months
Averaging Time (AT)	years	70	70 years for residents (OEHHA, 2015)
Cancer Risk Conversion Factor (CF)	m^3/L	1000000	Chances per million (OEHHA, 2015)
Cancer Risk	per million	3.28	D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015)
Hazard Index for DPM	**Units**	**Value**	
Chronic REL	$\mu g/m^3$	5.0	
Chronic Hazard Index for DPM	unitless	0.00	

Notes:

DPM = diesel particulate matter

REL = reference exposure level

$\mu g/m^3$ = micrograms per cubic meter

L/kg-day = liters per kilogram-day

m^3/L = cubic meters per liter

$(mg/kg/day)^{-1}$ = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

Office of Environmental Health Hazard Assessment (OEHHA), 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February.*


Ralph Appezzato Memorial Parkway
Webster Street
12332
107722
112181
18970
Legend
Project Site
Maximally Exposed Individual Resident (MEIR)
Maximally Exposed Individual Student (MEIS)
1000-Foot Buffer for MEIR
Existing Sources